REPORT

ON THE

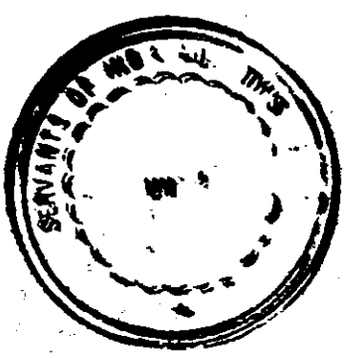
ADMINISTRATION

OF THE

BOMBAY PRESIDENCY

FOR THE

YEAR 1892-93.



BOMBAY:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1893.

In rounding off figures, fractions exceeding one-half have been reckoned as equivalent to one, and those equal to or less than one-half have been left out of consideration.

CONTENTS

PAGE

PART I.

SUMMARY ... ... i—liv

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

Area, Aspect, Climate, Products ... ...1—45

POLITICAL.

Historical Summary 46
Sind 47
Gujarát 52
Deccan 54
Karnatak 57
Konkan 60

Form of Administration 64
Government 65
Political ... ... ib.
Civil Courts 66
Criminal Courts 67
Police 68
Revenue Department 70
Local Funds 71
Municipalities 72
Medical Department ... ... ib.
Public Works Department 73
Educational Department ... ... ib.
Forest Department 74
Opium Department ... ... ib.
A'bhári Department ... ... ib.
Salt Department ... ... ib.
Customs Department 75
Department of Land Records and Agriculture 75
Minor departments 76

Character of Land Tenures; system of Survey and Settlements 76
Revenue Survey ... ... ib.
Mirás tenure 82
Tálnkdári tenure 83
Narvádari and Bhágdári 85
Mehwási 86
Mateki ... ... ib.
Udhad Jamabandi 87
Sarákati ... ... ib.
Alienate lands in Gujarát 87
Khoti ... ... ib.
Iráfat ... ... ib.
Shilotri 88
Dhárekari 89
Vatandár Kula ... ... ib.
Reclamation leases ... ... ib.
Survey tenures in Sind 90
Maurusi haripan (hereditary tenancy) ... 91
Jaghira 92
Patadári tenure ... ... ib.
Khairáts (charitable grants) ... ... ib.
Frontier grants ... ... ib.
Gardon grants 93
Huri grants 93
Seri grants ... ... ib.
Alienation Settlement ... ... ib.

Civil Divisions of British Territory 94
Bombay town and island ... ... ib.
Northern Division 95
hmedabad ... ... ib.
Kaira 97

PAGE

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY—*continued.*

Panch Mahals 98
Broach 100
Surat 101
Thána 102
Central Division 104
Ahmednagar ... ... ib.
Khándesh 106
Násik 107
Poona 109
Sátára ... ... ib.
Sholápur 111
Southern Divisio ... ... ib.
Belgaum ... ... ib.
Dhárwár 112
Bijápur 113
Kanára 114
Ratágiri 115
Kolába ... ... ib.
Sind 117
Karáchi ... ... ib.
Hyderábád 118
Shikárpur 119
Thar and Párkar 120
Upper Sind Frontier 121

Census of 1891... 122
Area ... ... ib.
Town and country ... ... ib.
House-room 123
Movement of the population ... ... ib.
Religion 125
Age and sex ... ... ib.
Marriage statistics 126
Infirmities 127
Instruction ... ... ib.
Languages... 129
Birth-place 130
Castes and Tribes 132
Occupation 134

TRIBUTARY STATES.

North Gujarát—
Cutch 139
Pálanpur 142
Mahi Kántha 144
Káthiáwár 147
Cambay 152
Rewa Kántha and Nárukot 155

South Gujarát—
Dharampor 157
Bánsda ... ... ib.
Sachin 158

North Konkan—
Khándesh Political Agency 159
Surgána 160
Jawhár ... ... ib.

South Konkan—
Janjira 161
Sávantvádi 162

Deccan—
Sátára Jághirs—
Bhor 165
Phaltan 166
Aundh ... ... ib.
Akalkot 167
Kolhápur 168

Southern Marátha States 171
Sángli ... ... ib.
Miraj (Senior) 172
Miraj (Junior) 173
Kurundvád (Senior) 174

PAGE

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY—*continued.*

Kurundvád (Junior) ... 175
Jamkhandi ... *ib.*
Mudhol ... 176
Rámdurg ... 177
Jath ... *ib.*
Daphlápur ... 178
Savanúr ... 179
Sind—
Khairpur ... *ib.*
Aden ... 180
The Somáli Coast ... 182

CHAPTER II.—ADMINISTRATION OF THE LAND.

Surveys—
Great Trigonometrical Survey of India ... 186
Indus Riverain Detachment ... *ib.*
Tidal and Levelling Operations ... *ib.*
Revenue Survey ... 187
Settlements—
Presidency Proper ... 190
Sind ... 195
Alienation Settlements ... 196
Collection of Land Revenue ... *ib.*
Waste Lands ... 197
Government Estates ... 198
Wards' and other Estates under management of Government ... *ib.*
Estates in charge of the Tálukdári Settlement Officer ... *ib.*
Encumbered Estates, Sind ... 200

CHAPTER III.—PROTECTION.

Legislating Authority ... 202
Course of Legislation ... 204
Police—
Mofussil ... 205
Sind ... 207
Bombay City ... 208
Railway ... 209
Aden ... 210
Vagrants ... *ib.*
Destruction of wild animals and venomous snakes ... 211
Chemical Analysis ... *ib.*
Criminal Justice ... 212
Prisons ... 216
Reformatory Schools ... 218
Civil Justice ... *ib.*
Execution of decrees by the Revenue Department ... 222
Dekkhan Agriculturists' Relief Act ... 223
Registration—
Under Act III of 1877 ... 226
Under the Dekkhan Agriculturists' Relief Act. *ib.*
Joint Stock Companies ... 227
Local Boards' Administration ... 228
Municipal Administration—
Bombay Municipality ... 230
District Municipalities ... 237
Military ... 241
Marine—
Bombay Shipping Office ... 243
Aden ... 244
Bombay Port Trust ... *ib.*
Karáchi Port Trust ... 247
Aden Port Trust ... *ib.*
Indus Conservancy and Sea Pilot Department ... 248

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

Agriculture— ... 249
Advances to cultivators ... 256
Agricultural Stock ... 257
Horse and Mule-breeding ... *ib.*
Horse, Cattle and Agricultural Shows ... 258
Weather and Crops—
Meteorological Department of Western India. 259
Brief Sketch of the Meteorology of the Bombay Presidency ... 260

PAGE

CHAPTER IV.—PRODUCTION AND DISTRIBUTION—*continued.*

Colába Observatory ... 265
Weather at Bombay ... 266
Season, Crops and Prices ... 267
Wages ... 269
Horticulture—
Public Gardens, Bombay ... 270
The Empress Gardens, Poona ... *ib.*
Forests ... 271
Mines and Quarries ... 278
Manufactures—
Cotton ... 278
Silk ... 279
Gold and Silver Thread Embroidery ... *ib.*
Woollen ... 280
Fibres ... *ib.*
Paper ... *ib.*
Precious metals and stones ... *ib.*
Brass and Copper ... *ib.*
Field Tools ... *ib.*
Ironwork ... *ib.*
Tin ... 281
Electro-plating ... *ib.*
Glass ... *ib.*
Lac ... *ib.*
Ivory and Tortoise shell ... *ib.*
Pottery ... *ib.*
Timber ... *ib.*
Furniture ... *ib.*
Wood carving ... *ib.*
Vehicles ... 282
Boats ... *ib.*
Canework ... *ib.*
Leather ...
Horn ...
Bone-crushing ... *ib.*
Tobacco ... *ib.*
Sugar, oil, butter and soap ... *ib.*
Salt and Saltpetre ... 283
Gunpowder ... *ib.*
Sulphuric Acid, aerated waters and ice ... *ib.*
Rice husking and flour ... *ib.*
Painting ... *ib.*
Lithography and wood-engraving ... *ib.*
Printing ... *ib.*
Sculpture ... *ib.*
Manufactures and Industries ... 283
The Factories Act ... 284
Steam Boiler Inspection Act ... *ib.*
Bombay Mill-owners' Association ... 285
Trade ... *ib.*
(1) Presidency Proper—
Port of Bombay ... 287
Subordinate Ports of the Presidency Proper ... 304
Land Trade of the Presidency Proper. 307
(2) Sind—
Chief Port, Karáchi ... 309
Subordinate Ports of Sind ... 315
Sind External Land Trade ... 316
(3) Aden ... 318
Public Works—
Civil Works ... 322
Civil Buildings ... *ib.*
Communications ... 328
Miscellaneous Public Improvements ... 330
Military Works ... 331
Railways ... 332
Works in Progress ... 333
Lines under Survey or Projected ... 334
Miscellaneous ... 335
Capital ... *ib.*
Revenue transactions—Traffic and Working... 337
Telegraphs ... 339
Post Office—
Imperial Post, Bombay Circle ... 341
District Post ... 344
Irrigation ... 345
Gujarát Works ... 346
Deccan Works ... *ib.*
Sind Works ... 347

PAGE

CHAPTER V.—Financial Review.

General Finance 348
Mint 354
Currency—
Bombay Circle 355
Karáchi Circle 358
Land Revenue... 359
Canal Revenue ... ... ib.
Public Works Revenue 360
Sea Customs—
Bombay 361
Karáchi 363
Land Customs... 364
Opium ... ... ib.
Salt—
Presidency Proper 366
Sind 372
Aden 373
Excise—
Presidency Proper ... ... ib.
Sind 376
Aden 377
Stamps ... ... ib.
Income Tax 378
Local Funds ... ... ib.
Municipal Revenues 380

CHAPTER VI.—Vital Statistics and Medical Relief.

Births and Deaths 381
Emigration 388
Medical Relief—
Civil Medical Institutions in the City of Bombay ... ... ib.
Civil Hospitals and Dispensaries in the Mofussil 389
Contagious Diseases Act, Bombay ... 390
Lunatic Asylums 391
Sanitation 393
Vaccination 394
Veterinary 397
Veterinary Dispensaries ... ... ib.

PAGE

CHAPTER VII.—Instruction.

General System of Public Instruction ... 399
Education—
General Summary 401
University Education... 403
Secondary Schools 405
Primary Education 408
Education of Special Classes 411
Special Instruction 412
Miscellaneous 415
Literature and the Press—
Literature ... ... ib.
The Native Press 416
Literary Societies—
Bombay Branch of the Royal Asiatic Society... 420
The Gujaráti Dnyán Prasárak Mandli ... ib.
Sassoon Mechanics' Institute 421
Arts and Sciences—
The Victoria and Albert Museum, Bombay ... ib.
Karáchi Municipal Library and Museum ... ib.

CHAPTER VIII.—Archæology.

Archæological Survey Party of Western India ... 422

CHAPTER IX.—Miscellaneous.

Ecclesiastical Jurisdiction—
Established Church of England 424
Established Church of Scotland 426
Roman Catholic Church ... ... ib.
Other Churches 427
Stationery ... ... ib.
General Miscellaneous—
Government Central Press, Bombay ... 428
Government Printing Press, Karáchi ... ib.
Government Photozincographic Office ... ib.

Statistical Returns.

PART III.

CHAPTER I.

PAGE

STATISTICS OF PHYSICAL AND POLITICAL GEOGRAPHY.

A.—Geographical Area 3

B.—(1.) Political Relations with Native States ... 4
(2.) Ruling Chiefs 10

C.—(1.) Civil Divisions of British Territory ... 16
(2.) Civil Divisions of Territory under Political control 17

D.—(1.) Population of British Territory 18
(2.) Population of Native States 19

CHAPTER II.—ADMINISTRATION OF THE LAND.

(1.) Statement showing the date on which the current settlement in each District of the Bombay Presidency expires 20

(2.) Cost of Re-settlement Operations . ... ib.

CHAPTER III.—PROTECTION.

A.—LEGISLATIVE—

(1.) Acts passed in the year 1892-93 21
(2.) Bills proposed and pending during the same period... ... ... ib.

B.—POLICE—

(1.) General statement of Cognizable Crime showing the results of Police and Magisterial operations 22
(2.) General statement of Non-Cognizable Crime showing the results of Police and Magisterial operations 23
(3.) Thuggee, Dacoity and other professional crimes 24
(4.) Additional Police collected for the protection of persons and property at fairs... ib.
(5.) Strength, Cost, Distribution and Employment of Police 26
(6.) Equipment, Discipline and General Internal Manag ment of the Force 30
(7.) Race, Religion or Caste of Officers and Men employed in the Police 32

C.—JUDICIAL STATEMENTS (CRIMINAL AND CIVIL)—

(1.) Judicial Divisions and the number of Officers exercising Appellate or Original Jurisdiction, with the Cost of Tribunals... 33
(2.) Criminal Offences reported and Persons tried 34
(2A.) General result of the trial of European British subjects 38
(3.) Miscellaneous Criminal proceedings ... 40
(4.) Result of Criminal trials ... ... ib.
(5.) Punishments inflicted by the Criminal Tribunals 41
(6.) Result of Appeals and R visions 42
(7.) Use of Juries and Assessors in the Civil and Criminal Courts 43

D.—PRISONS—

(1.) Number and disposal of Convicts in the Jails 44
(2.) Religion, age and previous Occupation of the Convicts ... ... ib.
(3.) Convicts classed according to the nature and length of sentences 45
(4.) Convicts who had been previously convicted ... ... ib.

CHAPTER III.—PROTECTION—*continued.*

PAGE

D.—PRISONS—*continued.*

(5.) Expenditure in guarding and maintaining Prisoners 45
(6.) Employment of Convicts 46
(7.) Net cash earnings of Convicts ... ... ib.
(8.) Net Cost of Prisoners ... ... ib.
(9.) Sickness and Mortality among Prisoners... 47
(10.) Particulars regarding Civil Prisoners ... ib.

E.—JUDICIAL STATEMENTS (CIVIL)—

(1.) Number and description of Civil Suits ... 48
(2.) Number and value of Suits instituted ... 49
(3.) Result of the trial of Civil and Revenue Cases in the Courts of Original Jurisdiction, Part I, Civil Suits 50
(4.) Ditto ditto, Part II, Miscellaneous Cases. 51
(5.) Appeals from decrees 52
(6.) Miscellaneous Appeals 53
(7.) Execution of Decrees 54
(8.) Insolvency proceedings under Chapter XX, Civil Procedure Code... 55

F.—REGISTRATION—

Deeds registered and Departmental Receipts... 56

G.—LOCAL BOARDS' ADMINISTRATION—

(1.) Statement showing the constitution of the Local Boards in the Presidency of Bombay including Sind... 58
(2.) Statement showing the details of the works undertaken for the improvement of sanitation in the Presidency of Bombay including Sind 60

H.—MUNICIPAL ADMINISTRATION—

Statement showing the constitution of the Municipalities in the Presidency of Bombay, including Sind 64

I.—MILITARY—

(1.) Strength and Cost of the Bombay Army... 65
(2.) Actual Cost of the Bombay Army ... ib.
(3.) Detailed statement of amount included in the Supplementary Account 66
(4.) Abstract of ditto ditto ... ... ib.

J.—MARINE 67

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

A.—AGRICULTURE—

(1.) Total Area of Government and Alienated villages and the area for which agricultural statistics are available, with details of cultivated and uncultivated area ... 68
(2.) Area under different Crops 70
(3.) Irrigated area and crops growing under Irrigation 72
(4.) Agricultural Stock 73
(5.) Average incidence of Land Revenue per acre and per head of population for the Presidency Proper 74
(5A.) Do. for the Province of Sind 80
(6.) Number and extent of holdings in Surveyed Government Rayatwári Villages, with details for each District 82
(7.) Varieties of tenure other than Rayatwári with the number of estates under each variety of tenur and the area and revenue paid to Government under each such variety... 84
(8.) Sources of Water-supply, 1891-92 ... 86

B.—WEATHER AND CROPS—

(1.) Climate 87
(2.) Prices of Products 88
(3.) Do. Labour 89

C.—MANUFACTURES—

Particulars regarding the number of Mills working in the Bombay Presidency ... 89

PAGE

CHAPTER IV.—PRODUCTION AND DISTRIBUTION —*continued.*

D.—TRADE—

(1.) Merchandise and Treasure imported from Foreign Countries into the Bombay Presidency, including Sind 90

Merchandise and Treasure (exclusive of Government Stores and Treasure) imported from Foreign Countries and Ports in British India into the Port of Aden ... 98

(2.) Exports from Bombay and Sind to Foreign Countries 110

Exports to Foreign Countries and Ports in British India from the Port of Aden ... 122

(3.) Customs Duty collected on the principal and other articles of Merchandise subject to duty on Import and Export at Ports in the Presidency of Bombay and in the Province of Sind 134

Customs Duty collected on the principal and other articles of Merchandise subject to duty on Import and Export at the Port of Aden 135

(4.) Coasting Trade of the Presidency Proper and Sind 136

(5.) Number and Tonnage of Vessels which entered and cleared with cargoes from and to Foreign Countries at Ports in the Presidency of Bombay and the Provi ce of Sind 138

(6.) Number and Tonnage of Vessels which entered and cleared in ballast from and to Foreign Countries at Ports in the Presidency of Bombay and in the Province of Sind 146

Number and Tonnage of Vessels which entered and cleared from and to Foreign Countries at the Port of Aden 154

(7.) Number and Tonnage of Vessels employed in the Interportal Trade which entered and cleared with cargoes and in ballast in the Presidency of Bombay and in the Province of Sind 158

Number and Tonnage of Vessels which entered and cleared from and to the Ports in British India and Burma at the Port of Aden 160

(8.) Quantity of Cotton exported from India during 1892-93 161

(9.) Quantity and Value of Cotton exported from the Bombay Presidency during 1892-93 162

E.—POSTAL—

Articles received for delivery and returned undelivered by the District Village Postmen 163

F.—PUBLIC WORKS DEPARTMENT—

(1.) Abstract of financial results showing the estimated cost of construction of Protective and Productive Irrigation Works, the Capital Outlay thereon, the Revenue derived therefrom, the working expenses and the interest on the debt incurred in respect of those works for and to end of 1892-93 164

(2.) Abstract of financial results showing the estimated cost of construction of Ordinary Irrigation Works, the Capital Outlay thereon, the Revenue derived therefrom, and the working expenses in respect of those works for and to end of the year 1892-93 166

(3.) Statement showing the extensions of roads constructed and in progress, maintained from Imperial and Provincial Funds in the Bombay Presidency for the year 1892-93 168

(4.) Statement showing the extensions of Local Fund Roads constructed and in progress maintai ed by the Public Works Department in the Bombay Presidency for the year 1892-93 174

(5.) Statement showing the number of miles of each road previously demarcated and the lengths completed during the year 1892-93 182

PAGE

CHAPTER V.—REVENUE AND FINANCE.

A.—GENERAL STATEMENTS—

(1.) General Statement of receipts and expenditure of the Bombay Presidency during 1891-92 and 1892-93 201

(2.) Revenue of the Bombay Presidency ... *ib.*

(3.) Expenditure of the Bombay Presidency ... 202

(4.) Comparative Statement of Civil Receipts and Expenditure (Imperial) for 1891-92 and 1892-93 ... ... *ib.*

(5.) Comparative Statement of Civil Receipts and Expenditure (Provincial) for 1891-92 and 1892-93 203

(6.) Statement showing the Actual Receipts and Expenditure under Debt and Remittance Heads for 1892-93 ... ... *ib.*

B.—LAND REVENUE—

(1.) Land Revenue to be realized and realizatio s, &c., in 1891-92 and 1892-93 for the Presidency Proper 204

(2.) Do. for the Province of Sind ... 207

C.—EXCISE—

(1.) Excise Revenue and net Reven e of 1892-93 210

(2.) Excise charges 212

(3.) Manufactories, licenses and shops ... 213

(4.) Duty and Consumption 214

(5.) Incidence of consumption 218

D.—STAMPS—

(1.) Receipts and Disbursements on account of General and Court-fee Stamps ... 219

(2.) Net receipts from Stamp revenue from 1882-83 to 1892-93 220

(3.) Sales of Court-fee stamps 221

E.—INCOME TAX—

(1.) Statement showing the collections of the tax from Salaries, Pensions and Gratuities paid by Government 223

(2.) Statement showing collections from interest on Securities ... ... *ib.*

(3.) Statement showing collections under Act II of 1886 224

(4.) Statement showing the original and final demands, &c., under the Act 225

(5.) Statement showing the expenditure incur ed in assessing and collecting the tax for 1892-93 226

F.—LOCAL FUNDS—

(1.) Receipts and expenditure of Incorporated Local Funds 227

(2.) Receipts and charges of Local Fund and Village Officers' Cess Fund ... ... *ib.*

(3.) Income and expenditure of Excluded Local Funds ... ... *ib.*

(4.) Statement showing the income of the Local Boards in the Presidency of Bombay, including Sind 228

(5.) Statement showing the expenditure of the Local Boards in the Presidency of Bombay, including Sind 236

G.—MUNICIPAL REVENUES—

(1.) Income of District Municipalities ... 248

(2.) Expenditure of ditto 256

(3.) Details of Octroi Taxation 262

PAGE

CHAPTER VI.—Vital Statistics.

A.—Births and Deaths—
(1.) Births registered during 1892 267
(2.) Deaths registered during 1892 ... ... ib.
(3.) Deaths registered from different causes ... 268

B.—Medical Services.—Civil Hospitals and Dispensaries—
(1.) Number of Civil Hospitals and Dispensaries 270
(2.) Number of In-door and Out-door patients treated ... ... ib.
(3.) Diseases of In-door and Out-door patients treated ... ... ib.
(3a.) Results of Major Surgical Operations performed 271
(4.) Classes and Sexes of In-door and Out-door patients ... ... ib
(5.) Income and Expenditure on account of Civil Hospitals and Dispensaries ... 272

C.—Lunatic Asylums—
(1.) Admissions, Discharges, &c., of Lunatics in Lunatic Asylums 273
(2.) Criminal Lunatics in the Asylums ... ib.

D.—Vaccination—
(1.) Particulars of Vaccination 274

PAGE

CHAPTER VII.—Instruction.

A.—Education—
(1.) Abstract Return of Colleges, Schools and Scholars 282
(2.) Abstract Return of Expenditure on Public Instruction 283
(3.) Return of Colleges, Schools & Scholars ... 284
(4.) Detailed return of expenditure 286
(5.) Return of the stages of instruction of Pupils in Public Schools for general education ... ...
(6.) Results of examinations in the Bombay Presidency 289
(7.) Return showing the distribution of Local and Municipal Boards' expenditure on Public Instruction... 290
(8.) Distribution of Schools under the Government of Bombay and the States subject to administrative supervision 291

B.—Literature and the Press—
(1.) Total number of books registered in the Bombay Presidency 292
(2.) Analysis of Publications registered ... ib.
(3.) Return of Presses worked and Newspapers or Periodical Works published ... 293

CHAPTER IX.—Miscellaneous.

Return of Persons according to Religious Denominations 303

PART I.

SUMMARY.

THIS Report must not be mistaken for a history of the last ten years. When first prescribed by the Government of India it was directed that as the history of a year's government cannot be followed without a fair understanding of, and a frequent advertence to, the existing condition of the country and its political institutions, it was desirable to maintain a record of these in a shape more conveniently accessible than the scattered sources from which readers might have to collect this kind of information for any particular province. Chapters of standard reference, or red letter chapters as they are called, were ordered to be written and revised every ten years, to give a fixed starting point from which the facts which are presented in each section could be followed up and appreciated. The history of the year 1892-93, which happens to fall in the tenth year of publication, therefore contains these standard chapters revised so as to bring the facts up to date.

Red letter chapters revised.

The Right Honourable George Robert Canning Baron Harris, G.C.I.E., continued to hold the post of Governor and President in Council; and Lieutenant-General Sir G. R. Greaves, K.C.B., K.C.M.G., that of Commander-in-Chief and Second Member of Council throughout the year. The Honourable Sir Raymond West, M.A., F.R.G.S., LL.D., K.C.I.E., continued as Third Member of Council until the 24th April 1892, when he retired and was succeeded by Sir Charles Bradley Pritchard, K.C.I.E., C.S.I., who in turn handed over office to the Honourable Mr. Herbert Mills Birdwood, M.A., LL.D., on November 16th, 1892, on his being appointed a Member of His Excellency the Viceroy of India's Council. The post of Fourth Member of Council was held by Sir Charles Bradley Pritchard until April 24th, 1892, and subsequently by the Honourable Mr. Birdwood until November 16th, 1892. On the latter officer's appointment to the post of Third Member of Council, the Honourable Mr. Arthur Charles Trevor became Fourth Member of Council and continued to hold that office until the end of the year.

Personnel of the Administration.

On the 5th April 1892, His Excellency the Governor accompanied by his Personal Staff embarked from the Apollo Bandar, Bombay, in the R. I. M. S. "Canning" and arrived at Janjira at noon on 6th, where he received an address to which he replied. He then performed the ceremony of opening the Victoria Water-works. After driving round the town and visiting the Anglo-Vernacular School, His Excellency sailed for Cutch-Mándvi, where he arrived on the 8th April. On arrival at Cutch-Mándvi, His Excellency was received by a deputation consisting of the Political Agent and two of the Sardárs of His Highness the Ráo of Cutch, and drove to Bhúj in the afternoon. On arrival at Bhúj, His Excellency was received by His Highness the Ráo, Prince Karnsingji and some of the principal Jádeja Chiefs. After a ride round Bhúj on Saturday morning the 9th, His Excellency held a reception after breakfast which was attended by all the European gentlemen in the station. The reception was followed by a State visit from the Ráo of Cutch, which was subsequently returned by the Governor, the usual formalities being observed on both occasions. In the afternoon, His Excellency presided at the distribution of prizes to the students of the Alfred

The Governor's tours.

High School and performed the ceremony of opening the Fergusson Museum and Library. His Excellency left for Khari Rohar on 10th, which he reached in the evening. On the afternoon of 11th, His Excellency and Staff left for Wawánia in the Ráo Sáheb's launch and landed at about 3-30 P.M., where he was received by the Political Agent and other gentlemen in a mandap erected for the occasion, and started for Morvi in the tram cars, arriving at about 7 P.M., and was met by His Highness the Thakor Sáheb. On the 12th April, His Excellency visited the State stables of His Highness in the morning and afterwards performed the opening ceremony of the New Free Asylum and Hospital, and the Vakhtaba Charitable School, paying a short visit to the State workshops between the two ceremonies. In the afternoon His Excellency received a formal State visit from the Thákor Sáheb which he returned. On the 13th April, His Excellency left for Bhávnagar, arriving in the evening. On the 14th, His Excellency drove to the Taktsinghji's Hospital and declared the new institution open, in presence of a very large assemblage of European and Native ladies and gentlemen, and afterwards visited the new Sámaldás College, the Marble Chatre at the Gangagellia Tank and the State Records Department. In the afternoon, His Highness the Mahárája with his Councillors paid a State visit to His Excellency the Governor, which was subsequently returned, and later on His Excellency drove to the lines of the Bhávnagar Imperial Lancers and saw the men at drill. On leaving the Lancers' lines, His Excellency drove to and inspected the Bhávnagar Bandar. On the 15th April, His Excellency paid a visit to Miss Brook's Girls' School and subsequently visited the High Court. On leaving the High Court, His Excellency went to inspect the Bhávnagar paddock and returned to Nilambág.

His Excellency the Governor left for Songad *en route* for Pálitána on the 16th April, where he was received by the Thákor Sáheb and his Sardárs. In the afternoon, the Thákor Sáheb paid a visit to His Excellency the Governor, which was returned. On the 17th, His Excellency, in company of His Highness the Diván Sáheb and Káka Sáheb Sardársingji, visited the celebrated Jain temples on the Satrunjya Hills. His Excellency left on the 18th for Ahmedábád. On the 19th, His Excellency the Governor visited the Ellis Bridge and afterwards left for Broach and Surat. In each of these cities His Excellency the Governor held receptions. His Excellency returned to Bombay on 21st and proceeded to Mahábaleshvar on 23rd April, performing the opening ceremony of the Convalescent Home at Khandála *en route*.

On the 8th November 1892, His Excellency the Governor left for Ahmednagar. On the 9th, His Excellency inspected the Bhingár Aqueduct and afterwards the Government stud farm. In the afternoon, he distributed prizes at the horse show and was presented with an address to which he replied, and left for Ganeshkhind on the 10th November by road, inspecting the Poona Horse at Sirúr *en route*.

On the 22nd January 1893, His Excellency the Governor left Bombay for Kirkee to visit the Camp of Exercise, and returned to Bombay on 25th January.

On the 3rd February 1893, His Excellency the Governor left Bombay for Chinchli and arrived there on the 4th. His Excellency was received at the Chinchli Station by His Highness the Mahárája of Kolhápur, the Political Agent and by numerous Chiefs and other gentlemen. At noon His Excellency the Governor received the visits of His Highness the Mahárája and the other Southern Marátha Country Chiefs, who were present at the show, and paid them return visits. On the 6th, His Excellency the Governor opened the Chinchli Horse and Cattle Show, and distributed prizes to the winners, and returned to Bombay on 7th February 1893.

The most important event of the year was the reconstitution of the Council of His Excellency the Governor of Bombay in accordance with the provisions of the Indian Councils Act, 1892. By this measure the number of additional members, which under the Indian Councils Act, 1861, was not to be less than four or more than eight, has been raised to a number not less than eight or more than twenty, of whom at least half must be non-official; further by regulations framed under Section 1 (4) of the Act by His Excellency the Governor General in Council, the power of recommending persons for nomination to eight seats in the Council has been conceded to eight Bodies and Associations, namely, the Corporation of Bombay, the Chambers of Commerce at Bombay and Karáchi, the Bombay University, the Sardárs of the Deccan, the Jághirdárs and Zamindárs of Sind, and two groups formed by the Municipalities of the Northern and the District Local Boards of the Southern Divisions. The election of their representatives by the first six of these Bodies and Associations was accomplished without difficulty, but the want of common organization among the groups of Municipalities and Local Boards rendered special arrangements a matter of necessity to enable the sense of these bodies to be taken without confusion or delay. With this object a system of graduated representation was drawn up by which each Municipality with a population between 5,000 and 1,000 was allowed to appoint one delegate, and each Municipality with a population of 10,000 and upwards was allowed to appoint an additional delegate for every additional 10,000 or fraction of 10,000 of population; while in the case of District Local Boards one delegate was apportioned to each 100,000 or fraction of 100,000 of the population. The delegates so chosen were further required to select by their votes one or other of the candidates for the post, for nomination to a seat on the Council by His Excellency the Governor. In the case of the Municipalities of the Northern Division, which are all within easy reach of the railway, it was found possible to convene the delegates at Ahmedábád, and the votes were recorded and the enumeration made, in the presence of the Commissioner, N. D., at a convenient place in that city. In the Southern Division the difficulties of communication and the distances to be traversed made it impossible to assemble the delegates in one place; they, consequently, met at the head-quarters of each district and recorded their votes there, the voting papers being subsequently sent to the Divisional head-quarters at Belgaum for the purpose of enumeration. As a result of these arrangements, the preliminaries were completed without a hitch and the newly constituted Council met for the first time on July 27th, 1893. Important events.

The depredations of a gang of Miána outlaws, subjects of the Mália State, in the northern districts of Káthiáwár, caused great anxiety to the authorities of that province during the early part of the year. Notwithstanding the efforts of the Agency and State police to arrest them, they succeeded in committing a series of robberies of the most daring kind, and it was found necessary to take special measures, which comprised the appointment of several additional European police officers and the reinforcement of the local police by detachments of regular troops, for their suppression. As a result of these arrangements, the gang were tracked and pursued by a small party of mounted police under Lieutenant Gordon, I.S.C., to an island on the edge of the Rann of Cutch, where, after a fierce encounter, they were destroyed, but at the cost of the lives of Lieutenant Gordon and two of his men. Outlawry in Káthiáwár.

The Godhra-Limkhera section of the Godhra-Rutlám Railway was opened for traffic in January, and the Jetalsar-Rájkot section of the Bhávnagar-Gondal-Junágadh-Porbandar Railway in May 1893. Other events.

The northern districts of the Presidency were visited during the first week of September by a heavy downpour of rain, which caused great damage to property and breached the railway line in several places, stopping all communi-

cation with Bombay for some days. Other events of importance or interest are referred to under the headings to which they belong.

Native States.

In addition to the territory under its direct administration, the Government of Bombay exercises political control over some 350 Native States, scattered over every division of the Presidency, and presenting numerous gradations of size, wealth and civilization. The principal features of the year's administration of the more important States or Agenoies are briefly noticed below, and shown more in detail in the body of the report. With the exception of an outbreak of dacoity in Káthiáwár, which for a time caused considerable anxiety to those entrusted with the administration of that province, the year has been one of almost unbroken peace and prosperity. Crime, especially in its more serious forms, has shown a marked decrease, while trade aided by the abolition of vexatious dues and imposts and by the improved methods of communication which the more enlightened rulers have provided, has continued to expand. One large and important State, that of Khairpur, it is to be regretted, still continues to be administered on ancient models, but with this exception, the efforts of those responsible for the government of the various States to assimilate their methods and systems to those that have answered so well in British India, have generally continued unrelaxed.

North Gujarát States: Cutch.

The Ráo of Cutch was honoured by a visit from His Excellency the Governor of Bombay and His Excellency the Commander-in-Chief during the year. For the first time for some years the province enjoyed a favourable rainfall and the outturn of the crops was in consequence above the average. Much damage however was done both to life and property by a severe cyclonic storm which passed over the State in May 1892. With a view to the settlement of the chronic disputes between Cutch and Morvi, the areas affected by the dispute were by a decision of Her Majesty's Secretary of State taken under British management during the year. The object of this measure is to effect an accurate valuation of the various properties with a view to the complete separation of the interests of the two States at some future time. The total amount of crime reported showed a considerable decrease, owing, no doubt, to the favourable season; the efforts of the police in coping with it, however, were hardly as successful as in the previous year. Civil litigation showed a slight increase. Trade, both import and export, was evidently still suffering from the effects of the cycle of bad seasons through which the province has passed, and was considerably smaller in volume than in 1891-92. It was found impossible to work either of the ginning factories in the State at a profit. The State expenditure on public works showed a considerable decline; but the total for 1891-92 was exceptionally large, owing to the expenditure of over a lákh of rupees for the construction of a telegraph line in the State. An accurate comparison of the revenue and expenditure of the State shown in the report for 1892-93 with that appearing in the report for the previous year is impossible, as the figures for the latter year represent the total for the Hindu Samvat year 1947, which was an intercalary year of 13 months; but there appears to have been a large decrease in revenue, which was only partially counterbalanced by a diminished expenditure, and the balance to the credit of the State was over Rs. 75,000 less at the end than at the beginning of the year. The public health in the State suffered in common with the rest of Gujarát from the prevalence of fever and from a severe epidemic of cholera, which increased the attendance at the hospitals and dispensaries. The improvement in the attendance at the State schools, which was so marked in 1891-92 was not maintained during the year, probably owing to the unhealthiness of the season. To the same cause is attributed a decline in the attendance of the Jádeja and Gárasia boys. A large number of scholarships were awarded during the year for the encouragement

of primary and higher education, and a sum of Rs. 4,248 was expended in grants to Gujaráti authors.

Pálanpur Superintendency.

The Pálanpur Superintendency comprises the two first class States of Pálanpur and Rádhanpur and nine other less important tálukas. The rainfall for the year was excessive and the kharif crops suffered to some extent in consequence. The rabi crops however were decidedly good. The year was unusually unhealthy owing to a severe epidemic of fever, which caused a very large rise in the rate of mortality in the district. The revenue of both the first class States exceeded the expenditure, but the surplus in Pálanpur was very small. The Rádhanpur State, on the other hand, had a balance of over Rs. 1⅓ lákhs at the end of the year. Both States expended large sums on public works. At Pálanpur a new jail, hospital and girls' school were completed, and at Rádhanpur the construction of a jail and of a canal to bring water from the river Banás to the town were in progress. The Agency police was thoroughly reorganized during the year. There was a decrease in the number of offences reported both to the Agency and State police and in the number of persons arrested by them; the percentages of convictions to arrests were rather higher than in the previous year. At the same time the value of the property stolen increased and there was a heavy falling off in the percentage recovered. There was a large increase in the amount of civil litigation, but the number of political cases decided by the Agency showed a falling off. Four new schools were opened during the year, but there was a slight decrease in the total number of pupils on the rolls. The long-standing disputes between the Pálanpur and Dánta States with regard to certain co-shared villages were enquired into by an officer specially commissioned during the year. The Pálanpur-Deesa Railway, towards which the Diwán of Pálanpur has given such material assistance, was commenced during the year.

Mahi Kántha Agency.

The Mahi Kántha Political Agency comprises 59 States, among which I'dar is the only one belonging to the first class. The year was not marked by the occurrence of any event of importance. The enquiry into the Pálanpur disputes was completed by the special survey officer appointed for the work, while 5 test cases connected with the disputes between the State of I'dar and the Gadhváda Tálukdárs were tried and decided by a special judicial officer lent from British service. An appeal was made to the Government of India by the Meywár State against the decision passed in the previous year in the Kundal-Mahuda case; orders were still awaited at the close of the year. The Chiefs of Pol and Varsoda attained their majority during the year and were entrusted with the management of their estates; while the estates of Pethápur and Vásna were also released from the attachment hitherto placed upon them and handed over to their respective Chiefs. There were eighteen other estates under management at the close of the year. The rainfall of the year was excessive and in many places more than double the average; besides doing great damage to house property throughout the States, it spoilt the staple kharif crop, bájri; and though the moisture left in the soil enabled the cultivators to secure an unusually heavy rabi crop, the loss occasioned by the loss of the kharif was not made up and the season taken as a whole was far from favourable. Under these circumstances it is gratifying to find that crime, especially of a violent nature, decreased in all but seven States, —a result which, it seems possible, was attributable to increased efficiency on the part of the police, whose success moreover in prosecuting offences to conviction was much more marked than in the previous year. The number of civil suits filed and the value of the claims involved both showed an increase, with which, however, the Courts failed to keep pace, as the balance undisposed

of at the end of the year was considerably above that of the previous year. Notwithstanding an increase in the number of appeals for disposal, the arrears at the end of the year were little more than half those of the previous year,—a fact which was attributable to the grant of appellate powers to the Personal and Native Assistants to the Political Agent. The number of documents presented for registration was over five times that of the previous year. With the exception of I'dar and a few other States, either under or recently released from Agency management, the financial position of the States in the Agency was one of extreme embarrassment,—a fact which, as usual, prevented much money being spent on the construction of works of public utility. Public health in the province was far from good, an epidemic of cholera, followed after the rains had ceased by fever of an unusually severe type, causing a heavy rise in the rate of mortality. Attendance at the schools in the province showed a falling off, probably in consequence of the large amount of sickness, though it is gratifying to note that education continued to spread among the Bhils and that an additional school was opened for their benefit during the year.

Káthiáwár.

The Province of Káthiáwár comprises 188 States, divided into seven classes; the Chiefs in the first two of which alone exercise full power over their own subjects. The State of Porbandar in the first class and those of Vánkáner and Rájkot in the second were under management by British officers during the year under report. The year 1892-93 will long be remembered in Káthiáwár in connection with an outbreak of dacoity on the part of a gang of Miánas, subjects of the Mália State. This band of outlaws, who first began to give trouble in the latter part of 1891-92, remained at large during a considerable part of the year under review, and notwithstanding strenuous efforts on the part of the Agency and State police to arrest them, continued to make daring attacks on person and property, and to spread a feeling of insecurity throughout the whole of the northern part of the province. It was finally decided to take stringent measures for their suppression. Several additional British officers were appointed to assist the police of the Agency and different States, and detachments of regular cavalry and infantry were told off to aid in the work of capturing the offenders. These arrangements finally resulted in the Miánas being tracked and pursued by a small body of sawárs under Lieutenant Gordon, I. S. C., to an island called Karádia on the edge of the Rann of Cutch, where, after a fierce encounter, the whole band were destroyed, but at the cost of the lives of Lieutenant Gordon and two of his men. A Commission was appointed during the year to enquire into and effect a settlement of the long-standing differences between the Hindu and Muhammadan subjects of the State of Junágadh. After careful investigation the Commission presented a report to the Darbár. It is to be regretted, however, that before steps had been taken to carry out the recommendations contained in the report, the animosity between the two races became accentuated and disputes arose during the Muharram festival, which led to open fighting and serious loss of life. The railway from Jetalsar to Rájkot was successfully completed and opened during the year. The season was, on the whole, favourable and the harvest good. Crime of all kinds showed a considerable decrease, but the results of the working of the police were decidedly below the average, owing mainly to the heavy strain put upon them by the prevalence of dacoity. Notwithstanding a slight decrease in the amount of litigation in the Agency Courts, the number of cases disposed of by the Agency Courts was considerably below that of the previous year, a fact which may also be attributed to the Political officers being obliged to devote a large part of their time to the pursuit of the outlaws above mentioned; that of the State Courts on the other hand showed an improvement. There was on the whole a serious increase in the amount of arrears, which was specially marked in the case of the Porbandar State. A favourable season caused a large increase

in the volume of trade both import and export, and also helped to swell the earnings of the Bhávnagar-Gondal-Junágadh-Porbandar Railway, which showed an improvement of nearly a lákh of rupees over those of the previous year. Public works expenditure showed an increase of about half a lákh of rupees, Bhávnagar as usual heading the list. Public health was fair during the year with the exception of an epidemic of fever in the Jhálavád Pránt and an outbreak of cholera at Muli. The number of educational institutions in the province continued to increase. The control of all schools in seven States was handed over to the State authorities during the year, on the latter agreeing to make an annual contribution towards the cost of inspection and to satisfy certain other conditions,—a gratifying mark of the confidence placed by Government in the efficiency of this branch of Native State administration.

Cambay.

During the year under report the special officers entrusted with the work of reforming the administration of the Cambay State and of relieving it from the financial and other embarrassments, which caused so much trouble three years ago, made good progress with the task assigned to them. The principal event of the year was the introduction of the survey settlement, the rates for which were published in May 1893. The innovation met with a not unfavourable reception at the hands of the ryots, who will thus be spared in future the exactions incident to the old oppressive and arbitrary system of assessment. The year was on the whole far from favourable, heavy floods during the monsoon followed by a plague of caterpillars during the cold weather inflicting heavy losses on the cultivators, which were further intensified by the appearance of disease among their cattle. But notwithstanding this, considerable progress was made in the collection of the arrears of land revenue due to the State, and owing to a more careful supervision of the accounts and a more systematic method of collection the actual revenue for the year exceeded that collected in the previous year. The increased receipts, combined with economy in the expenditure, enabled the State to pay a sum of Rs. 1½ lákhs in liquidation of its liabilities and it may reasonably be expected that by the end of the current year the State will be free from debt. The number of offences reported to the police showed a marked decrease; and though a decline in the percentage of convictions to arrests would seem to show that the lower ranks of the police were somewhat hasty in taking action, the high proportion of convictions to the number sent for trial proves that cases were not committed to the Courts without full enquiry by the officers of the force. Both the Sardárs' and the Small Cause Courts, which were newly constituted in the previous year, were working satisfactorily and notwithstanding a marked increase in the amount of ordinary civil litigation, the arrears were less than those of the previous year. An increase in the number of schools and in the attendance at them showed that due attention was being paid to the wants of the people in this respect and in addition to numerous minor works of public utility, a new State hospital and dispensary were completed, the jail was enlarged and improved, and a new Court-house was under construction.

Rewa Kántha Agency.

The Rewa Kántha Agency comprises the one first-class State of Rájpipla, five second-class States and fifty-five petty States or estates. The Rájpipla State has been under the management of a British officer since 1887, and of the remaining States and estates, eighteen were under British management during the year. The chief event of the year was the opening, as far as Limkheda, of a section of the Godhra-Rutlám Railway, passing through the territory of the Devgad-Báriya State, the Rája of which gave cordial assistance to the railway authorities in the work of constructing the line. A plentiful rainfall, combined with a comparative absence of epidemics, made the season a favourable one, on the

whole, both to crops and public health. The Agency and State police continued to be fairly efficient, and notwithstanding a slight increase in the amount of crime reported to them were more successful in bringing offenders to justice and in recovering stolen property than in the previous year. There was an increase in the amount of civil litigation, with which the Courts, though they disposed of more cases than in 1891-92, failed to keep pace, with the result that arrears at the end of the year were unusually large. Fourteen new schools were opened in the Agency during the year, twelve of which were in the Rájpipla State.

South Konkan: Janjira.

The administration of the Janjira State was carried on by the Naváb in a highly satisfactory manner during the year. The Victoria Water Works at Murúd, the construction of which is due to the Naváb's initiative, were completed during the year, His Excellency the Governor of Bombay making a special visit to the town in order to perform the opening ceremony. The season was on the whole a fair one, the yield of the crops, though damaged by an unusually heavy rainfall, being inexcess of that of the previous year. The revenue of the year showed a slight falling off, while expenditure increased; but notwithstanding this, the financial position of the State continued satisfactory, the balance at the end of the year amounting to nearly Rs. 5½ lákhs. There was a slight increase in the number of offences reported to the criminal Courts, but the success of the police in prosecuting cognizable cases to conviction was much more marked than in the previous year. Education made good progress and a sum exceeding half a lákh of rupees was spent on public works.

Sávantvádi.

The Sávantvádi State continued under the direct administration of the British Government during the year. The season, which promised well at first, was not as favourable as was expected, an unseasonable fall of rain in October spoiling what would otherwise have been a good harvest. The new water-works for the town of Sávantvádi were completed and opened during the year. There was a slight increase in the number of offences and of persons arrested; the percentage of convictions to arrests remained the same. The accounts of the State showed an excess of Rs. 30,000 in expenditure over revenue; this however was exceptional and due to the heavy cost of completing the water-works. Education continued to make good progress, the number of both schools and pupils showing an increase.

Deccan: Kolhápur and the Sátára Jághira.

The chief event of the year to be noted in connection with the Kolhápur State was the visit of His Excellency the Governor to the Horse and Cattle Show at Chinchli. The show, which was not held in the preceding year owing to the scarcity prevailing, attracted a large number of exhibitors and was a great success. The administration continued to be carried on by a Council of Regency under the supervision of the Political Agent. The Chief, who is now 19 years of age, remained under the care of Mr. S. M. Fraser, I.C.S. The rainfall of the year was above the average but very unequally distributed, some heavy showers at the close of the season doing great damage to the crops. The harvest in consequence was not good. There was a considerable decrease in the net receipts of revenue, due in great measure to the scarcity which prevailed in the early part of the year, and also to a large falling off in hirda produce, while expenditure was slightly larger from the same cause. A sum of nearly Rs. 5½ lákhs was spent on public works during the year. The number of offences reported to the police showed a slight increase, but their efforts in dealing with crime were more successful than in the preceding year. The amount of civil litigation remained practically the same. There was a gratifying increase in the number of pupils attending the primary schools in the State, but the attendance at the State High School declined. The pupils of the latter school however achieved very good

results in the Matriculation Examination of the Bombay University. The percentage return of profits from the State Railway showed a slight improvement.

The condition of the Sátára Jágbirs was generally speaking prosperous, the abundant rainfall causing good harvests. The States with the exception of Jath, which was under the charge of an Administrator appointed by Government, were administered by their respective Chiefs in a satisfactory manner during the year.

The Southern Marátha States.

There is little of importance to record in connection with the States forming the Southern Marátha group. The number of States under the supervision of the Political Agent of Kolhápur and the Southern Marátha Country has been raised to ten by the addition of the State of Jath and its dependency Daphlápur in 1891. Jath continued to be managed by a selected officer under the supervision of the Political Agent, Southern Marátha Country, and Daphlápur by the Ránibái Sáheb, and Miraj (Junior) and Rámdurg, the Chiefs of which are minors, by Kárbháris under the orders of Government. The remaining six States were administered by their respective Chiefs. The year was on the whole a prosperous one from an agricultural point for all the States, with the exception of Miraj (Senior), where the heavy rain seems to have damaged the crops. Public health suffered considerably from an epidemic of cholera, which was very prevalent in Sángli and Miraj (Senior) during the months of June, July, and November 1892. Crime decreased in five States and increased in a like number, the net result being a slight decrease in the total number of offences reported. The efforts of the police in dealing with crime were generally more successful, with the exception of the Miraj (Senior) State force, whose returns showed a marked falling off. The amount of litigation in the Sángli State, which was unusually large in 1891-92, receded to its normal level during the year under review; the variations in the other States were small and do not call for special remark. The revenue of the various States generally showed an improvement owing to the favourable character of the season; expenditure on public works increased in the smaller States but fell off in the larger, where the expenditure in the previous year had been unusually large owing to the heavy cost of establishing relief works. Education made excellent progress during the year, every State without exception increasing its grants for the maintenance of schools. The various medical institutions maintained by the different States continued to be well appreciated.

Sind: Khairpur.

There is little to record in connexion with the Khairpur State, which continued to be administered in a patriarchal fashion by its aged Chief, His Highness Amir Sir Ali Murád Khán, G.C.I.E., throughout the year. The season was on the whole favourable; but the area of cultivated land in the State again showed a decrease, possibly owing to the neglect of the State authorities to maintain the irrigation works. The accounts of the State show an increase in revenue and a balance to the credit of the State of nearly Rs. 2 lákhs at the end of the year. It is difficult however to reconcile this with the diminution in the cultivated area above mentioned, and also with the well-known fact that the financial position of the State is extremely embarrassed. Education remained in a very backward state and judicial and police arrangements were very primitive. There were no hospitals or dispensaries in the State; vaccination, however, it is gratifying to note, was making some progress.

Aden.

The relations of the Aden Residency with the various Arab tribes in the vicinity of the Settlement were on the whole satisfactory throughout the year. Some trouble was caused by the raids of the Subáihis and by the feuds between the Yafaí and the Fadthlis but, on the whole, the peace of the interior was fairly well maintained and the caravan routes remained open. Arrivals of shipping

fell off considerably both at Aden and Perim, but notwithstanding this, the volume of trade was the largest ever known. Crime showed a slight decrease, but there was an increase in the number of suits filed and in the value of the claims involved. The revenues of the Municipal Board established in the Settlement showed a considerable improvement while there was a substantial reduction in the expenditure on the suburb of Shaikh Othman. Attendance at the English schools showed a slight decline; but the numbers on the rolls of the Arabic schools were well maintained. Public health owing, it is believed, to a smaller rainfall, showed a considerable improvement during the year.

Somáli Coast.

The year under review cannot be said to have been, on the whole, one of prosperity for the Somáli Coast. In the first place an epidemic of cholera visited the ports and caused many deaths at Bulhár and Zaila; next Bulhár was destroyed by fire, and finally the peace of the interior was disturbed by the raids of the Abyssinians on the Ogaden and troubles among the Somáli tribes themselves. It was found necessary to send small military expeditions to the coast on two occasions. The Aida Galleh section of the Habr Gerhájis tribe having been fined Rs. 500 for raiding in the neighbourhood of Bulhár and having refused to pay, the Political Agent was compelled to proceed to the coast with a small force in order to enforce the payment; the tribe on hearing of this promptly submitted and produced the sum required. Two months later there was an affray between a section of the Habr Awal and Esa tribes which gave rise to fears of an intertribal war. The Political Agent was again obliged to visit the coast accompanied by an armed force in order to mediate between the tribes. His interference was successful and averted what might otherwise have been a serious disturbance. Trade, notwithstanding these adverse circumstances, showed a considerable improvement, imports and exports at Berbera and Bulhár increasing by Rs. 8⅔ lákhs and Rs. 2⅔ lákhs respectively; though trade at Zaila, it must be noted, declined nearly Rs. 5½ lákhs. There was an increase in the number of steamers, but a heavy decline in that of country craft, that visited the ports.

Great Trigonometrical Survey.

There was one party belonging to the Great Trigonometrical Survey of India at work during the year in the Southern Marátha Country and part of the Konkan. The area surveyed was 2,721 square miles and that triangulated 3,750 square miles; while the boundaries of villages in British territory were traversed over 1,700 square miles. The cost of these operations was Rs. 81,235.

Indus river-in detachment.

The survey party formed to carry out a traverse and detail survey of both banks of the river Indus in the Province of Sind, with a line of adjacent village limited to 1·5 miles on each side, in continuation of a similar survey already carried out in the Punjáb, commenced work during the year. The object of the survey is to show the course of the river with all recognized deep and inner channels and all conspicuous objects such as temples, mosques, embankments and canals in the vicinity of the river. The direct length of the course of the river surveyed during the year was 110 miles, and the area traversed and topographically surveyed was 1,120 square miles. Certain disputed boundaries between Sind and the Baháwalpur State were also demarcated by this survey party during the year.

Tidal and levelling operations.

Tidal observations continued to be taken at six stations as in the previous year, and were everywhere highly satisfactory. The old observatory at the Apollo Bandar, Bombay, was replaced by a new building, while considerable alterations and repairs were effected to the observatories at Aden and Prince's Dock, Bombay. No levelling operations were in progress in the Presidency during the year.

Revenue Survey and Settlement: Presidency Proper.

The three revenue surveys of Gujarát, the Deccan and the Konkan remained in existence till the close of the year, though large reductions were made in the Deccan establishment with the partial completion of field operations. Owing to the smaller staff engaged there was a large decrease in the outturn of work, the areas measured and classed being 460 and 1,293 square miles against 2,358 and 3,516 square miles in the previous year. The number of Gujarát parties was the same as in the previous year, one party carrying on the valuation survey of Tálukdári estates in the Sánand, Viramgám and Parántij tálukas of the Ahmedábád district, while the remaining five were engaged in completing the revision measurement and classification of the Kaira District and in revision measurement of the Olpád and Bárdoli tálukas of the Surat District. The number of parties in the Deccan Survey was four up to the monsoon, when the number was reduced to three. They were principally engaged in conducting revision operations in the Nandurbár táluka of Khándesh District, in the Jávli táluka of Sátára District and the Peint táluka of Násik District. In the Konkan Survey there was an increase of one in the number of field parties. Two of these, however, were engaged on classification work in the Native States of Bhor and Janjira. The remainder were chiefly employed in measuring operations in the Thána District; in four tálukas of this district classification was also in progress.

Revision settlements were introduced into 1,463 villages, of which 1,374 were Government villages. The full assessment on the latter was fixed at Rs. 21⅙ lákhs, an increase of Rs. 5⅙ lákhs or 32·2 per cent. over the assessment fixed at the time of the original survey. The total cost of revision operations up to the present date has been Rs. 52,37,864 and the increase in the annual revenue demand resulting from them amounts to Rs. 31,30,483 or 33·1 per cent. in excess of the former revenue.

Sind.

The survey establishments in Sind were engaged during the year in original and revision measurement in thirty-seven tálukas of various districts. The total area measured amounted to 313,678 acres, or nearly the same as in the previous year. No regular classification work was done during the year. Proposals for the irrigational settlement of three tálukas in each of the Shikárpur and Thar and Párkar districts, in one táluka in the Upper Sind Frontier District, and a portion of the Dádú táluka in the Karáchi Collectorate were submitted to Government during the year. The new rates proposed for the Dádú táluka and for four tálukas of the Shikárpur District were sanctioned.

Forest Survey.

The Bombay Forest Survey Party carried on operations in all three forest circles during the year. The area triangulated was 785 square miles, that traversed was 447 square miles, and that surveyed in detail 446 square miles.

Cultivated lands.

The total area of cultivable land in the Presidency proper was nearly 26¾ million acres or some 238,192 acres in excess of that of the previous year. There was a decrease of 40,027 acres in the Northern Division which was more than counterbalanced by an increase of 278,219 acres in the Central and Southern Divisions. The large increase in the Southern Division was, to a certain extent, only apparent, as it includes the whole area of the Devgad táluka of the Ratnágiri Collectorate, statistics for which were available for the first time during the year under review owing to the completion of the revision survey; and the same remark applies to the Central Division, where the lapse of the Vinchur Saranjám in Násik and Khándesh districts has increased the area of Government land; but there was a real increase in the Khándesh district, owing to land, formerly classed as uncultivable, being classed as culturable at the time of the revision survey and to the disafforestment of certain areas in this district and Ahmednagar. The decrease in the Northern Division was almost entirely

due to the extension of the area under forests in the Panch Mahâls. The total area newly cultivated during the year was 79,026 acres, while 22,381 acres were relinquished; so that there was a net increase of 56,645 acres in the area under cultivation during the year. The extension of cultivation was general, though it was most noticeable in the Khándesh, Násik, and Ahmedábád districts; it was mainly attributable to the heavy rainfall of the year, which rendered an unusually large area of land fit to grow rabi crops. Accurate statistics are not forthcoming for Sind, but there is no doubt that there was a very large extension of cultivation in all the districts of that province, the heavy rains combined with floods from the river Indus enabling the cultivators to grow crops successfully on an exceptionally large area; in the Shikárpur district, it may be mentioned, the area under tillage was the largest on record. The number of occupancies in the Presidency proper and Sind was 1,467,281 against 1,445,259 in the previous year. There was an increase in every division which was mainly attributable to the favourable character of the season. Notwithstanding the large increase in the area under cultivation and in the amount of assessment to be collected, the number of distraints was less than a third of that of the previous year, which again was less than a half of that of 1890-91; a fact which shows clearly that the resources of the cultivators are well able to meet the increased demands made upon them.

Wards' and other estates under Government management.

Excluding estates under the management of the Tálukdári Settlement Officer in the Ahmedábád, Broach and Kaira districts, and the encumbered estates in Sind, there were altogether 83 estates belonging to minors and others, with an area of 151,982 acres, under the management of Collectors of districts during the year. They were none of them, however, of any great importance and their administration calls for no remarks. The estates under the management of the Tálukdári Settlement Officer comprised estates belonging to Tálukdárs, Thákors and others in Gujarát; the majority of them were in the Ahmedábád district, though there were a few in Broach and Kaira also. The number under management showed a slight increase during the year, but, notwithstanding this, the efforts made by the managing authority to relieve them from their financial embarrassments were even more successful than in the previous year and there was a large increase in the percentage of total debt paid off. In the case of minors' estates the surplus revenue was judiciously invested in Government securities and mortgages on good security; and care was taken that the owners of these estates received an education suited to their position. The Gujarát Tálukdárs' Act continued to work smoothly during the year, the provisions most utilized being, as usual, those relating to the borrowing of money and the partition of estates. The large sum of Rs. 4⅘ lákhs was borrowed in this way, at a low rate of interest under Government sanction, by various Chiefs for the purpose of liquidating their debts and improving their estates. Private sales of portions of estates, both parties to the transaction being Tálukdárs, were sanctioned in two cases, and in a third case sanction was accorded to the sale of a village by a Tálukdár to a cotton merchant in Bombay. The Tálukdárs' Jubilee Memorial Institute was opened at Ahmedábád during the year; it is located in a building leased by Government for the purpose and is intended to be used as a place where the Tálukdárs can put up, when on a visit to Ahmedábád, and also as a residence for Tálukdárs' sons attending schools in the city; the funds for its maintenance are to be provided out of the Tálukdárs' Jubilee Memorial Fund. In Sind there were thirty encumbered estates under the management of district officers during the year, nine of which were released, their debts having been liquidated; the amounts due from the other estates to Government and private individuals were, comparatively speaking, small.

Three Acts were passed by the Council of His Excellency the Governor of Bombay for making Laws and Regulations and assented to by the Viceroy and Governor General during the year under report. They were Act No. I of 1892 to prohibit the practice of Inoculation and to make the Vaccination of children in certain portions of the Bombay Presidency compulsory, Act No. II of 1892 to amend the Bombay Salt Act, 1890, and Act No. III of 1892 to amend the Bombay Abkari Act, 1878. There were no Bills pending at the close of the year. Legislation.

The total strength of the Police forces of the Presidency including Aden was 22,951 officers and men and the cost of maintenance amounted to Rs. 42,64,622. The total strength was slightly below that of the previous year, mainly owing to reductions in the Belgaum and Khándesh districts; the cost however showed an increase of Rs. 39,438. In the matter of education there was very little improvement, the percentage of officers and men in the Mofussil police who were able to read and write an ordinary report being almost the same as in the previous year; among the Railway police, however, it was somewhat higher. Judging from the increase in the number of punishments inflicted, the conduct of the police in the Presidency proper was hardly so good as in 1891; a conclusion which is strengthened by a marked decrease in the number of rewards granted. The conduct of the Sind Police on the other hand, judged by the same standard, appears to have improved considerably, while the police of Bombay City and Aden were also well reported on. Except on the Rájputána-Málwa line, the behaviour of the Railway Police was generally satisfactory. Police.

The number of cognizable cases reported in the whole Presidency, except Aden, during the year was 48,907 against 47,927 in 1891. There was a considerable decrease in the Presidency and Sind, but on the Railways and in Bombay City there was a marked increase which was especially noticeable in the case of the latter. The decrease in the Presidency and Sind was mainly due to fewer cases of theft, house-breaking, receiving stolen property and robbery; offences against human life were also somewhat less numerous, but dacoities rose, this form of crime being very prevalent in the Southern Division. The increase in the Bombay City was chiefly due to a larger number of petty offences falling under the Police Act such as street obstructions, &c., and to greater attention on the part of the police to such offences, but there was also an increase in the more serious offences of house-breaking, theft and receiving stolen property which were committed for the most part in Máhim and other suburbs of the city. Crime increased on all the railways, especially on the B. B. and C. I. Railway, where, however, the increase was mainly due to a large number of cases under the Opium Act; on the Rájputána-Málwa and Southern Marátha Railways cases of theft were decidedly more numerous than in the preceding year. The percentage of cases excluded by the Magistrates showed a tendency to decline; but the number was still very large and amounted to considerably more than a third of the whole. The total number of persons arrested by the police in connection with cognizable crime during the year was 48,096, of whom 36,819 or 76·55 were convicted, figures which show that the police were more successful in prosecuting cases to conviction than in the previous year, when out of 47,562 persons arrested only 73·3 per cent. were convicted. The value of property reported to have been stolen in the Presidency was over Rs. 15½ lákhs, an increase of Rs. 1½ lákhs over the total of the previous year; but in this matter the police were not so successful, as they recovered only Rs. 6½ lákhs or 42·36 per cent. as against Rs. 6¾ lákhs or 43·21 per cent. in the previous year. Taking the results achieved by the forces separately, it appears that the Bombay police as usual

obtained the highest percentage of convictions to arrests, and that the figure gained by them (92·50) was slightly above that of the previous year (92·71). The Mofussil police though a long way behind them showed a marked improvement, their percentage rising from 51·5 to 65, while results obtained by the different railway police forces were also better than in the previous year. In the matter of recovering stolen property all the forces except those of the B. B. & C. I., G. I. P. and Rajputána-Málwa Railways showed a falling off which was very marked in the case of the Mofussil police, who recovered only 40·43 per cent. against 48·3 in the previous year. The number of offences tried in Aden was 427 involving 708 offenders, of whom 547 or 77·23 per cent. were convicted. This percentage was slightly better than that of the previous year 76·31. There was a slight increase in the amount of property reported stolen, which was Rs. 2,465 as against Rs. 2,032 in the previous year; but there was a large improvement in the percentage of property recovered, which rose from 27·75 to 75·05 during the year under review.

Except on the railways, there was a large increase in the number of non-cognizable cases reported, the total being 127,902 against 120,629 in the previous year. The amount of crime of this description seems to be increasing yearly, as the total for the year under review is almost double the average of the five years preceding 1891. For this increase however the police are in no way responsible as they have very little to do with the prosecution of this class of offences; a fact which the returns for the year under review clearly prove, as notwithstanding the large increase in the total number, only 1,497, the smallest number for the last five years were forwarded to them for enquiry.

Vagrants.

The number of vagrants dealt with during the year was 93, a decrease of 28 compared with the number in the previous year. Of the total number, 46 were discharged or removed, 29 deserted, and 18 remained in the work-house at the close of the year. The total cost to Government of carrying out the Vagrancy Act (including expenditure on the work-house) was Rs. 6,552. There were no admissions to the female work-house during the year.

Destruction of wild animals and snakes.

Forty-eight persons were killed by wild animals and 1,038 by snake-bite during the year. The number of cattle destroyed in the same way was 2,283. These figures are considerably below those for the previous year, a result possibly due to some extent to the measures taken throughout the Presidency to keep the ground adjacent to human habitation free from all jungle and refuse that might afford cover to snakes and wild animals. The number of snakes destroyed for which rewards were paid was very small, being a little more than a tenth of that for the previous year. The decrease occurred almost entirely in the districts of Ratnágiri and Sátára where very large numbers of vipers (*Echis carinata*) have in former years been destroyed. The falling off is attributed to the limitation of the payment of rewards in the former district to the months immediately preceding the breeding season of the *Echis* and to the reduction in the rate of reward in the latter district.

Chemical Analysis.

There was a considerable decrease in the amount of work performed by the Chemical Analyser to Government during the year. The number of articles analysed in connexion with medico-legal cases, of samples of potable water, and of articles sent for examination by the Customs and Abkári Departments was practically the same as in the previous year; but the number of samples of Government stores showed a large falling off. This was due to the fact that the supply of malt liquor to the European troops in the Presidency by Government agency was discontinued during the year; there was consequently a considerable diminution in the number of samples of that commodity submitted for analysis.

The number of cases in which the poisoning of human beings was suspected was almost the same as in the previous year, but the percentage of cases in which it was discovered was somewhat smaller. The number of cases of animal poisoning which were investigated was also nearly the same; the number of those in which death was found to have resulted was the smallest for many years past.

Criminal Justice.

The total number of offences reported during the year 1892 was 213,625, of which 169,872 were returned as true; the corresponding numbers for the previous year were 189,130 and 161,044 respectively. The increase, which was most marked in offences under Special and Local Laws, particularly those under the District Municipal and Police Acts, extended to nearly every class of offence, the only cases in which there was any noticeable decrease being cases of theft, hurt, criminal trespass, and defamation. The total number of persons under trial during the year, including those involved in cases pending at the close of the previous year, was 261,657, being 27,267 more than in 1891. Of these 155,638 were acquitted or discharged, 85,403 were convicted, 859 died during trial, 2,384 escaped, and 18 were transferred to other provinces, while 17,355 remained under trial at the close of the year. During the previous year the number of persons under trial amounted to 234,390, of whom 139,892 were acquitted or discharged, 90,861 were convicted, 2 were ordered to be retried, 112 died during trial, 18 escaped and 3 were transferred to other provinces, 3,502 remaining under trial at the close of the year. The percentage of acquittals and discharges to the number of accused under trial fell from 59·68 to 59·48 and that of convictions from 38·76 to 32·64, so that the proportion of acquittals and discharges to convictions was 64·57 during the year under report as compared with 60·62 in 1891. During the year under review 342 cases, involving 373 European British subjects, were brought to trial, and of these persons 299 were convicted and 74 were acquitted or discharged, the ratio of the number acquitted or discharged being 20 to 80 as compared with 13 to 87 in the preceding year. There were 2,346 persons brought to trial before the Courts of Sessions and 121 before the High Court and the Sadar Court in Sind against 2,203 and 142 respectively in the previous year. On the Appellate Side of the High Court there were 25 cases involving 35 persons for confirmation of sentences of death, besides 10 cases involving 21 persons referred to the High Court by Sessions Judges. Of these 56 persons, 16 were acquitted and 31 convicted, sentences of death on 19 persons being confirmed, and cases against 9 persons remained pending at the end of the year. The High Court on its Original Side passed one sentence of death. No sentence of penal servitude was passed, but 133 persons were sentenced to transportation as against 161 in the previous year. The number of persons sentenced to imprisonment was 15,960 or rather less than that (16,395) of the previous year. The amount of fines inflicted fell from Rs. 4,08,762 to Rs. 3,98,523, while the number of persons punished in this way also fell from 70,141 to 64,932. The amount of fines realized, however, increased from Rs. 3,24,347 in 1891-92 to Rs. 3,35,609 in 1892-93. The number of persons sentenced to undergo whipping increased from 699 to 763; of these 157 were juvenile offenders and were sentenced under Section 5 of the Whipping Act for offences not punishable with whipping under Sections 2, 3 and 4. The number of appellants and applicants for revision before the Courts during the year (exclusive of 328 persons whose cases were referred to the High Court for revision) amounted to 9,134, and applications involving 664 accused persons were made by complainants for revision. The appeals or applications of 2,705 were rejected, in the case of 4,115 the sentence or order passed was confirmed, in the case of 55 the sentences were enhanced and in that of 727 the sentences were reduced or otherwise modified,

and in that of 1,523 they were reversed. The remaining cases were disposed of in other ways.

Prisons.

The total number of prisoners admitted to the jails of the Bombay Presidency during the year was 52,682, or slightly less than that for the preceding year; the percentage of convicts among them however was somewhat higher. The daily average jail population was considerably above that of the previous year, notwithstanding the fact that there was very little variation in the average duration of the sentences inflicted. The number of sentences of imprisonment for terms exceeding 10 years again rose, while that of sentences of transportation fell. The number of convicts sentenced to death fell from 59 to 52. The percentage of releases on appeal, which since 1881-82 has been steadily increasing, fell from 5·7 to 5·3. Twenty-eight convicts escaped and twenty-seven were recaptured. Of the latter, however, only 14 were convicts who escaped during the year under review. There was a considerable increase in the number of prisoners reconvicted and classed as habitual offenders, which shows that the improvement in the organization for identifying prisoners, which was noted last year, was maintained during the year under review.

The number of jail offences showed a considerable increase, a fact which was mainly due to the larger number of prisoners confined. The percentages of convicts employed on manufactures and extra-mural labour were almost the same as in the previous year, but there was a heavy diminution of over Rs. 25,000 in the profits realized by their work, which averaged for manufactures Rs. 22-12-10 and for extra-mural works Rs. 48-8-10 only per prisoner against Rs. 25-5-2 and Rs. 70-1-10 respectively in the previous year. This was caused mainly by the cessation of the American demand for the carpets manufactured in the Thána Jail owing to the operation of the McKinley tariff and by the fact that the Nára Gang was unemployed for three months and that the earnings of the Hyderábád Jail had not been brought to account before the end of the year. The net cost of the jails to Government rose from Rs. 3,77,528 in the previous year to Rs. 4,42,997 during the year under review,—an increase due in great measure to the high price of food-grains during the year.

The amount of sickness and mortality among the prisoners was considerably greater than in the previous year. The death-rate per mille rose from 32·4 to 36·5 and the daily average number of sick from 197 to 235. The appearance of pneumonia in an epidemic form at Shikárpur accounted to some extent for the increase, which was also attributable to the general unhealthiness of Gujarát, Sind and other parts of the Presidency consequent on the exceptionally heavy rainfall.

The number of admissions to the Yeraoda Reformatory school during the year was 36, or 5 less than in the previous year. Nine boys were released and two were transferred, leaving a total of 105 boys in the school at the end of the year. The health of the boys was far from good and admissions to hospital were more than double those of the previous year. There were, however, no deaths among them. The profits of the factory worked by the boys showed a decline of Rs. 202, but the cost of maintenance per head fell from Rs. 132 in the previous year to Rs. 122 in the year under review.

Civil Justice.

The total number of suits instituted in all the Courts during the year 1892 amounted to 207,113 as compared with 194,681 in 1891, showing an increase of 12,432. The increase was most noticeable in the Courts of Subordinate Judges and extended to fourteen districts, the largest being in that of Khándesh, where it was believed to be due to a good outturn of crops and also to a belief on the part of the moneylenders in the probable extension of the Dekkhan Agricultur-

ists' Relief Act to that district. The number of suits filed in the Presidency Small Cause Court, the village Courts, the Mofussil Small Cause Courts, and the Revenue Courts, also rose, but the number of institutions in District Courts declined. Classification of the suits according to their subject-matter shows that there was a considerable increase in suits on contracts in writing, for goods sold, for money had and received, for immoveable property and for money and moveables; while on the other hand there was a arked decrease in suits on account stated, and on contracts not in writing, and a smaller decrease in suits under the Specific Relief Act and suits for wages, work and materials. Notwithstanding the increase in the total amount of litigation, there was a large decrease in the value of the claims involved which fell from Rs. 341½ lákhs to Rs. 281¾ lákhs. The falling off extended both to the High Court and the Mofussil Courts, but was most marked in the latter where the total for 1892 was over 20 per cent. below that of 1891. On the other hand there was an increase of nearly a lákh in the value of the claims filed in the Presidency Small Cause Courts, the total for 1892 being Rs. 34½ lákhs against rather more than Rs. 33½ lákhs in 1891. The total number of suits disposed of by the several classes of Civil Courts during 1892 amounted to 206,843, as against 197,898 in the preceding year, an increase of 8,945 which extended to all classes of Courts exc pt those of the District and Assistant Judges. The effect of this increase in the number of suits disposed of by the High Court was to reduce very considerably the arrears, which fell from 1,683 at the end of the preceding year to 1,309 at the close of the year under report, but the Mofussil and Presidency Small Cause Courts generally failed to keep pace with the increase in the amount of litigation and the number of suits pending before them at the end of 1892 was 32,783 against 30,311 at the end of 1891. The average duration of suits both contested and uncontested in the High Court rose from 262 and 120 days to 306 and 319 days respectively; there was also an increase in the duration of both classes of suits in the Mámlatdárs' Courts and of contested suits in the District Courts. In other Courts, generally speaking, the average duration decreased. The amount of miscellaneous work, performed by the Civil Courts in addition to the decision of regular civil suits, was rather less than in the preceding year, 20,845 cases being disposed of out of the 24,659 that came before them, leaving a balance of 3,814 at the end of the year as against 3,391 at the end of the previous year. The total number of appeals before all Appellate Courts during the year under review was 11,263, of which 6,041 were disposed of, while 5,222 remained pending at the close of the year. The total number of applications for the execution of decrees before all the Civil Courts during the year 1892 amounted to 271,180, as compared with 267,850 in the preceding year. The number of judgment-debtors arrested without being imprisoned fell from 3,611 to 3,457, while the number of those actually imprisoned rose from 1,956 to 1,994. The total amount recovered by all the Courts in execution proceedings rose from Rs. 43¾ lákhs to Rs. 51¾ lákhs. The number of applications under Chapter XX of the Civil Procedure Code in the Mofussil Courts which was abnormally large (354) in the preceding year, fell to 326 during the year under review, but it was still above that of 1890 and 1889. Similar applications in the four districts subject to the operation of the Dekkhan Agriculturists' Relief Act increased from 34 to 42. In the Insolvency Court in Bombay the applications presented numbered 685 against 681 in the previous year. The reports of the inspections of the Subordinate Judges' Courts performed by the District and Assistant Judges were on the whole satisfactory and such of their work as came to the notice of the High Court showed that these officers continued, during the year under review, to discharge their onerous duties with intelligence and industry.

Dekkhan Agriculturists' Relief Act.

The Dekkhan Agriculturists' Relief Act (Act XVII of 1879) continued in operation in the districts of Poona, Sátára, Sholápur and Ahmednagar. The report of the Commission, appointed by the Government of India, which held an inquiry into the working of the Act in 1891, was submitted to that Government during the year. The number of suits instituted under the Act showed an increase over the total for the previous year, but was not above the average, the amount of litigation in 1891 having been exceptionally small. The number of additional Subordinate Judges was increased by one; but, notwithstanding this, arrears showed a tendency to increase. The proportion of suits concerning non-agriculturists, out of the total number suits filed, which was abnormally large in the previous year owing to the institution of a number of municipal suits in Sátára and Tásgaon, showed a slight decrease. The percentage of suits contested was practically the same as in the previous year, and was, as usual, considerably higher in suits against agriculturists than in non-agriculturist cases. The percentages of suits compromised, admitted, and decided *ex-parte* were also almost identical with those of preceding year; while suits withdrawn decreased and suits dismissed increased to an almost equal extent. The number of redemption suits instituted was larger than that of the previous year, the increase occurring chiefly in the Courts of the Ahmednagar District; mortgage-debts aggregating Rs. 1,44,338 being settled by Judges and Conciliators for Rs. 1,11,294.

During the thirteen years that the Act has been in operation the Courts and Conciliators have settled mortgage-debts amounting to Rs. 37½ lákhs at nearly Rs. 26½ lákhs. The number of applications for conciliation increased considerably; and the percentage of these cases in which agreements were effected was higher than in 1891. The number of Village Munsifs increased by four, and there was a proportionate increase in the amount of work disposed of by them. The amounts claimed in connexion with applications for the execution of decrees were considerably larger than in the previous year; the percentage of recoveries, however, remained practically the same. At the same time, it may be noted, there was a large increase in the amount paid into Court voluntarily, so that the total sum actually paid through the Courts was the largest on record. There was an increase in the average duration of suits; but the proportion of costs to the value of suits slightly decreased.

Registration under the Indian Registration Act;

The increase which has been visible since 1882 in the number of registrations under Act III of 1877 was well maintained during the year, the total number recorded showing an increase of 5·14 per cent. Both compulsory and optional registrations contributed to bring about this result. The aggregate value of the property affected was over 887 lákhs of rupees, the average per transaction being nearly Rs. 507 and the average registration fee Re. 1-12-4. The receipts of the department were higher than those of the previous year by Rs. 30,741 owing to the additional number of registrations affected, while the expenditure decreased by Rs. 506 owing mainly to the issues of books, forms, and other stationery in the previous year having largely covered the requirements of the year under review. The income of the department exceeded the expenditure by Rs. 2,48,429 against Rs. 1,98,510 in the previous year.

Under the Dekkhan Agriculturists' Relief Act;

The number of registrations under the Dekkhan Agriculturists' Relief Act in the four Collectorates of Poona, Ahmednagar, Sátára and Sholápur, exceeded that of the previous year by 9,961 or 7·80 per cent. The increase was shared more or less by all four districts and extended both to documents relating to immoveable and moveable property. The aggregate value of the property affected was Rs. 70¼ lákhs against Rs. 65½ lákhs in the previous year; but the

average value per transaction decreased from Rs. 51-5-6 to Rs. 51-1-9. The usual deficit in the accounts of registration under this head was materially reduced, the expenditure exceeding the income by Rs. 9,983 only as against Rs. 15,386 in the preceding year. This is the smallest deficit since 1885-86.

And under the Joint Stock Companies Act.

Twenty-one new companies were registered, thirteen went into liquidation and eleven were finally dissolved during the year. The total number of companies in existence was 239 (of which 162 were mills and presses) with an aggregate paid up capital of Rs. 1,067 lákhs. The receipts of the department were Rs. 7,226 and the expenditure Rs. 1,044, leaving a surplus of Rs. 6,182 against Rs. 7,428 in the preceding year. The operations of the Registration Department, therefore, under all the Acts, resulted in a net financial gain of Rs. 2,44,628 against Rs. 2,08,224 in the previous year.

Local Boards' Administration.

Local Boards in the Bombay Presidency are of two classes, District and Táluka Local Boards. Both District and Táluka Boards are composed partly of elected members and partly of members nominated by Government, except in a few localities where, owing to the backwardness of the people, the elective system has not been introduced. There were in all twenty-three District and two hundred and one Táluka Local Boards in the Presidency during the year under review. The total number of members serving on all the Boards was 3,491, an increase of four over the number serving in the previous year. At the commencement of the year the Boards had an aggregate balance of rather more than Rs. 30 lákhs; their revenue and expenditure amounted to Rs. 44,26,047 and Rs. 46,75,714 respectively, so that the balance at the end of the year was reduced to Rs. 27⅛ lákhs. The incidence of taxation was three annas per head in the Northern Division, two annas and ten pies in Sind, and two annas in each of the Central and Southern Divisions. As usual, the greater portion of the expenditure was devoted to Education and Civil Works; next to these, the improvement of the water-supply received most attention.

Bombay Municipality.

The total revenue of the Bombay Municipality for the year under review was nearly Rs. 66¾ lákhs or Rs. 5¼ lákhs more than in 1891-92. The chief heads of revenue under which the realizations showed an increase were the general, water and halálkhor taxes, the improvement in which was due to large collections of outstandings, town duties, and returns from other property and miscellaneous. The total expenditure, exclusive of loan works amounted to Rs. 65¾ lákhs or Rs. 8¾ lákhs more than in the previous year and Rs. 7¾ lákhs less than the estimate. The actual expenditure was in all departments less than the estimate, but of the total saving of Rs. 7¾ lákhs a sum of more than Rs. 3½ lákhs was required to meet unpaid liabilities and charges for works still under construction at the close of the year, so that the net saving was rather more than Rs. 4 lákhs, the greater portion of which was effected in the Engineer's and Health Departments. A loan of Rs. 2½ lákhs was raised from the public during the year for fire brigade quarters and stations. The total amount of debt repaid during the year was nearly Rs. 2¾ lákhs, of which Rs. 2¼ lákhs went to Government and Rs. 48,000 to private persons. The total debt repayable at the close of the year stood at Rs. 855 lákhs. Expenditure on loan works showed a large decrease owing to the completion of the Tánsa water-works, the total for the year being Rs. 29½ lákhs as against Rs. 34½ lákhs in 1891-92; the principal item was one of Rs. 17½ lákhs, representing expenditure on roads. The various assessment and collection books were carefully scrutinised and checked by the revenue audit department during the year.

The new engines and sewage pumps for the Love Grove Pumping Station arrived in December 1892 and were in course of erection during the year. The work of constructing house connections in various drainage sections, which

was in progress in 1891-92, was stopped during the year owing to a decision of the Corporation appointing a Committee to enquire into the suitability of the system and the possibility of improving it. Various improvements were made to the drainage arrangements of the City. With the exception of the 48″ main between Ghátkopar and Chinchpoogli, which failed on eight occasions at different places and was the cause of much inconvenience, the working of the Tánsa water-works was fairly satisfactory. The Tánsa Ghátkopar duct was taken over from the contractors on February 1st, 1893. Repairs to the Bhandárwáda reservoir were continued during the year.

The new Municipal offices, although not quite completed, were occupied on the 14th January 1893, the first meeting of the Corporation held in the building taking place on the 16th of that month. The new building bye-laws were finally sanctioned by Government and brought into operation during the year. Seventy cases occurred of buildings or parts of buildings collapsing; five of these were serious and resulted in the death of one person and injury to seventeen of others. The discipline and efficiency of the fire brigade showed a great improvement, large additions being made to the appliances at their disposal. The public health during the year was not satisfactory, the death-rate per mille being 32·26 as compared with an average of 27·50 for the preceding five years. There was also a considerable increase in the number of street accidents. The Mátunga leper asylum continued to prove itself a most valuable institution, the construction of a hospital ward for women and children, towards the cost of which a handsome donation was received from a Pársi lady, was in progress at the end of the year.

District Municipalities.

The total number of district municipalities in working order was 176 against 174 in 1891-92. The net increase of two was due to the creation of three new municipalities in the Sátára district, while that at Otur in the Poona district was abolished during the year. The total number of members of all municipalities was 2,430 against 2,421 in the previous year. There was a marked improvement in the attendance at meetings, especially in the Northern Division. The opening balances of the municipalities amounted to Rs. 15½ lákhs, their income was Rs. 50⅔ lákhs, and their expenditure was Rs. 43⅔ lákhs, leaving a balance of Rs. 22⅓ lákhs at the end of the year. There was a very large increase in Sind, due in great measure to the Karachi municipality having raised a loan of Rs. 5,96,000 in order to carry out a scheme of drainage for the town and also to larger imports of dutiable goods and extensive sales of land. Receipts in the Northern and Southern Divisions showed a slight decrease; in the Central Division there was a marked improvement, mainly in receipts from miscellaneous taxation. The incidence of municipal taxation varied from Re. 1-12-3 per head of population in Sind to Re. 0-10-6 in the Southern Division; in Sind and the Northern Division it was slightly higher and in the Southern Division lower than in the previous year; in the Central Division, while the incidence of indirect taxation fell off from Re. 0-12-1 to Re. 0-11-6, that of direct taxation remained stationary and that of miscellaneous taxation rose from Re. 0-6-7 to Re. 0-8-8. The largest increase of expenditure was in Sind, where a large number of works for the improvement of the conservancy and water-supply were undertaken during the year; in the Northern Division there was a marked diminution, due mainly to the large expenditure on water works and drainage by the Ahmedábád Municipality in the previous year not having been repeated during the year under review and also to reduction in the collection establishment of the Surat municipality. Efforts continued to be made to recover arrears of taxation, and by the end of the year a satisfactory reduction had been made in the balances outstanding.

During the year under review the strength of the Bombay army was increased by 430 men, the total at the end of the year being 39,797 as against 39,367 at the close of the preceding year. This increase was mainly due to the addition of one British regiment to the Infantry force. The total cost rose from Rs. 281 9/16 lákhs to Rs. 294 1/8 lákhs. The chief causes of this increase of over Rs. 12 lákhs were the addition to the strength above referred to, increased expenditure on foods and feeding stuffs caused by the high rates prevailing during the year, increased transport charges, and larger purchases of warm clothing. Besides a practice camp for the artillery force at Kirkee, which was attended by five batteries, a camp of exercise was held in the vicinity of Poona in January 1893. Every advantage possible was taken of relief movements, with the result that a large body of troops were assembled for the manœuvres. The garrison batteries carried out competition practice with the 6" breech-loading guns for the first time during the year with very satisfactory results. The British infantry stationed in the Presidency were re-armed with the Lee-Metford rifle during the year. The 26th regiment of Bombay Infantry was mustered out at Neemuch and reconstituted as a frontier regiment at Quetta for service above the passes in November 1892. Gymnastic instruction was carried on systematically wherever possible; there was a slight decrease in the number of men but an increase in the number of officers and non-commissioned officers instructed. Three classes of garrison instruction for officers were held at Poona during the year. Moving targets were used for the first time in the annual musketry course for Native troops; despite the innovation the results obtained were fair. The percentage of non-commissioned officers and men in possession of certificates of education was somewhat lower than in the preceding year, being 37·1 against 38·7. This was due to the fact that certain regiments came to the command at the end of the year 1892. There was, however, an increase in the number of certificates granted. With a view to encourage the study of native languages by the rank and file of the British army, the Government of India sanctioned the division of the present Lower Standard examination in Hindustáni into two parts. The number of non-commissioned officers and men who passed examinations in oriental languages rose from 11 to 21, mainly in consequence of this change. The attendance at schools for Native troops, as well as the number of education certificates granted showed a heavy falling off. There were no cases of infectious or contagious disease among the horses of the Artillery or British Cavalry forces, but there was a serious outbreak of anthrax, which lasted nearly nine months before it could be stamped out, among the horses of the 1st Bombay Lancers at Neemuch. The new lines for Native troops at the Crater Position, Aden, were completed and taken over for occupation. A small force composed of detachments of the 16th Bombay Infantry and Aden troop was on two occasions despatched to the Somáli Coast to protect the ports and support British authority there. Detachments of the 3rd Bombay Cavalry and 23rd Native Infantry were also placed at the disposal of the Civil authorities in Káthiáwár for the purpose of suppressing dacoity in that province. An unusually heavy trooping and relief programme was carried out without a hitch. Military.

The total number of European seamen shipped and discharged at the Bombay shipping office was larger by 450 than that in 1891-92, the increase being mainly due to the arrival of several extra P. and O. steamers during the year. There was a large falling off of 1,069 in the number of native seamen shipped and discharged, which was due to the general dullness of trade, which lowered freights, and consequently diminished the amount of shipping that visited the port. There was a large increase in the number of deaths among native seamen owing to the wrecks of the "Bokhara," "Deccan," and "Roumania" during Marine: Bombay Shipping Office.

the year. The net revenue of the shipping office was slightly less than that of the preceding year.

Aden.

The number of square-rigged vessels that entered the port of Aden showed a heavy falling off, the total for the year being 1,463 against 1,669 in 1891-92. There was a similar but larger proportionate decrease in the number that called at Perim. The number of native seamen discharged was larger and of those engaged smaller than in the preceding year.

Bombay Port Trust.

The accounts of the Bombay Port Trust showed a deficit of Rs. 1⅓ lákhs, revenue and expenditure being Rs. 45 lákhs and Rs. 46½ lákhs against Rs. 47½ lákhs and Rs. 47⅔ lákhs respectively in the previous year. The falling off of Rs. 2½ lákhs in revenue was due to the general dullness of trade, which affected the arrivals of shipping and also caused a heavy decrease in the quantities of merchandise imported and exported. Ground, warehouse and shed rents alone showed a decrease of Rs. 89,376 owing to the smaller quantities of grain, coal and piece-goods stored on the Trustees' properties. The net revenue from the wet docks also fell off by over Rs. 1½ lákhs. There were reductions in expenditure amounting to over Rs. 1 lákh owing to savings in the amounts spent on establishment, repairs, sundries, such as stationery, printing and minor works, and bandar properties and wet docks. The total capital debt of the Trust at the beginning of the year amounted to Rs. 493$\frac{1}{10}$ lákhs, of which rather more than Rs. 360 lákhs were due to Government. In the year under report a sum of Rs. 26,831 was paid in reduction of this debt, while on the other hand a further advance of 1 lákh of rupees was made by Government on acount of the Victoria Dock Loan. In this connection it may be noted that the Trustees raised a loan of Rs. 61,61,000 during the year at 4 per cent. in order to repay the balance of the 4½ per cent. loan made by Government for the construction of Prince's Dock. This amount was paid to Government shortly after the close of the year. This transaction did not affect the amount of the debt, which was simply transferred from Government to the public, but it will effect a yearly saving in future of nearly Rs. 31,000.

Karáchi Port Trust.

There was a heavy falling off of over Rs. 3 lákhs in the revenue of the Karáchi Port Trust, consequent on the general depression of trade, income being Rs. 6⅔ lákhs and expenditure Rs. 4$\frac{9}{10}$ lákhs against Rs. 9½ lákhs and Rs. 5$\frac{1}{10}$ lákhs in the previous year. The number and tonnage of steam ships and native craft that entered the port showed a heavy decrease. A loan of Rs. 20 lákhs was raised by the Trustees for the purpose of extending the Erskine wharf by four berths of 450 feet each, and for providing an import yard at the head of the harbour.

Aden Port Trust.

The receipts and expenditure of the Aden Port Trust were almost the same as those of the preceding year, expenditure showing a large excess owing to the continuance of the heavy expenses occasioned by the dredging of the harbour. There was a marked decrease in the number of square-rigged vessels and native craft that entered the port. Satisfactory progress was made with the work of dredging the harbour.

Agriculture.

During the year under review an agricultural staff was maintained in all the districts of the Central and Southern Divisions except Kolába. A new staff of 14 circle inspectors was also introduced into the Ahmedábád district towards the close of the year. The Divisional inspectors, besides their regular duties of field inspection and of supervision of the district survey offices, conducted several crop experiments; while the Divisional Inspector in the Southern Division was on special duty for two months to settle a disputed boundary between Portuguese and British territory, and also superintended the measures which were taken to

stop the ravages of rats. Survey classes were held in the monsoon at Ahmedábád and all other district head-quarters except Dhárwár, Bijápur, Belgaum and Ratnágiri, for the training in surveying of circle inspectors recruited otherwise than from the survey department. The subordinate staff were for the most part engaged on the ordinary crop, waste and boundary inspection. The percentage of villages inspected and the quality of the work done was generally satisfactory, though there was room for improvement in the inspection of waste lands in Násik and in the districts of the Southern Division. One result of the more thorough inspection of boundary marks was the discovery, principally in the Central Division, of a large number of encroachments, in many cases of old standing, which had been passed over by the village officers; while the systematic examination of the entries made by village officers in the crop registers led to these records being kept in a more careful and scientific manner than heretofore. In addition to the inspection above mentioned, a census was taken of the agricultural stock in every village, and the birth and death registers were periodically checked. A large amount of measuring and classing work in connection with land disputes, encroachments, subdivision of occupancies and other matters was performed by the various district staffs during the year, while the correction and bringing up to date of the survey records also received considerable attention. In the Ratnágiri district the peculiarities of the prevailing system of laud tenure necessitated special arrangements. Out of a staff of eighteen circle inspectors, six were employed in the tálukas of Vengurla and Málvan on the ordinary village inspection work, while the remaining twelve were employed on miscellaneous measurement, census, and other original work, and for three months of the year were engaged in the special test inspection of boundary marks required by Rule 104 of the rules under Section 214, Land Revenue Code. The Bhadgaon farm, which, owing to the inaccessibility of its situation and the difficulty of obtaining labour in its vicinity, it was considered inadvisable to retain, was sold to a private purchaser during the year under review, the price obtained for the land, farm buildings and live and dead stock being very satisfactory. Inquiries were being made with a view to the selection of a site for the location of a new farm to take its place. On the Poona farm, experiments were made to test the feeding value of various fodder crops and to show the leguminous crops most suited to be grown with cereal crops. The results showed that as gauged by the amount of wastage in feeding, guinea grass was first in point of merit and next to it came the sundhia, shalu and nilva varieties of jowári. Lucerne was found to be very liable to disease and the much-advertised Lathyrus sylvestris was a total failure. Of the leguminous crops grown with cereal crops, vál and chavli were found to give best results, though they were not so well suited to light soil as kulthi. The dairy herd kept at the farm yielded a good profit, notwithstanding that fodder was very dear in the early part of the year. Further researches were made during the year into the origin and treatment of the potato disease, which has caused such havoc in the Deccan during the past two years. It was found that the only real remedy for it is the importation of fresh seed belonging to varieties known to be able to resist the disease. With this object a grant of Rs. 5,000 was made by Government for the purchase of English seed and a consignment was obtained; but it unfortunately arrived in an unsound state and although it was eagerly sought after by the cultivators, its distribution was deemed inadvisable. The cultivation of arrowroot in Ratnágiri continued, and although a fall in the market prices diminished the profits obtained from a shipment of it sent to England, the local demand was steadily increasing. The demand for the Muzáffarnagar soft white wheat in parts of Sind continued during the year, though the area under it decreased owing to floods and other causes, and the experiment with acclimatized American cotton in Thar and Párkar was

yielding hopeful results. The quantity of bones exported from the port c Bombay for utilization as manure showed a still further increase during the yea: the total export being 17,500 tons valued at Rs. 9,63,000.

Advances to Cultivators.

The total amount advanced during the year to cultivators by Governmer for the purchase of seed and cattle was Rs. 2½ lákhs and for permanent improve ments Rs. 4 lákhs against Rs. 1½ lákhs and Rs. 7¾ lákhs respectively in th previous year. The amount advanced in the latter year, it should be note was very unusual and was due to the widespread distress in the Deccan an Karnátak during the year, when the policy of making liberal takávi advance was generally adopted and with marked success. Excluding this year, the tota amount advanced during the year was double that for 1890-91, which agai was double that for any year before. The advances for the purchase of see and cattle were largest in the Dhárwár and Bijápur districts, where the syste had been most popularised in the previous year; in the Karáchi district, whe extensive floods destroyed the kharif crops and caused great distress amon the cultivating classes, and in the Upper Sind Frontier District, where the was a dearth of ploughing cattle owing to the scarcity of the previous yea Advances for permanent improvements were large in all the Deccan distric except Khándesh, and in Kánara and Surat. The figures for Sind also showe that the system was growing in popularity there.

Agricultural stock.

The number of cattle in the Presidency proper (Sind is excluded as trus worthy statistics are not available for it) showed a considerable improveme during the year. The results of a census taken at the end of the twelve montl under review show that the number of cattle increased in all districts but fiv namely, Ratnágiri, Kánara, Dhárwár, Kaira and Surat; in the first of these th decrease was nominal and was due to the statistics having been compiled for a muc smaller number of villages than in 1891-92, in the second it was caused by tl return to their homes in foreign territory of cattle sent in search of fodder in th previous year, and in the last three it was so extremely small as scarcely t need remark. In view of the statement often made that the number of cattle i the Presidency is decreasing, it is interesting to note that, excluding for the reaso given above the Ratnágiri district, the total number of cattle rose during th year from 78,44,867 to 81,40,610, an increase of 2,95,743. The improvemen was due to the marked absence of disease among cattle, to the abundanc and cheapness of fodder, which made the rearing of young stock an easy matte and to larger purchases of additional cattle by cultivators, out of loans advance by Government for the purpose. The number of horses and ponies and cart: both for riding and carrying loads, showed a marked increase, a proof of a improvement in the material condition of the people. Ploughs also increase in numbers. Altogether the agricultural stock returns for the year 1892-9 are extremely satisfactory.

Horse and Mule-breeding operations.

The number of Government stallions serving in the Bombay Presidenc and Beluchistán fell from 99 to 94 during the year. There was a rise in th number of branded mares covered and in the percentage of produce foaled, bu there was a heavy falling off in the total number of branded mares registered This, however, was probably more nominal than real as the previous figures wer known to have been inaccurate. The results of the mule-breeding operation were not very successful, the number of pony mares covered being less than i the previous year. The cost of the department was Rs. 68,268 agains Rs. 66,767 in the previous year.

Shows.

Five shows were held in the Presidency during the year at Ahmednagar Jacobábád, Chinchli, Ahmedábád and Nausháhro. The show at Ahmednaga was the result of the arrangement by which the two shows formerly held a

Ahmednagar and Poona were amalgamated into one to be held alternately at each of these places, and was a great success. The number of exhibits of horses and cattle was more than double that of previous years, while the quality also showed a great improvement, the classes for brood mares and young stock being specially commended for their excellence. The number of exhibits at the Sind horse show at Jacobábád was double that of the previous year when the show was held at Shikárpur, and the exhibits generally showed a high level of excellence. No less than eighty animals were purchased by the Remount Department and more could have been bought if indents had been sent for them. The Kolhápur horse show, which had not been held in the two previous years owing to the distractions of the census operations and the prevailing scarcity, was held at Chinchli during the year under review and was graced by the presence of His Excellency the Governor. The exhibits of horses, cattle and also agricultural products were generally satisfactory. The exhibits at the Ahmedábád horse show were not good, two-thirds of the prize money being withheld; but the show at Naushahro in Lower Sind, which was held for the first time during the year, was a great success.

Meteorology.

There was no change in the number of observatories under the control of the Meteorological Reporter for Western India. The daily weather report and chart were prepared and issued to the press and general public as usual. Additional reporting stations were established at Bhuj, Jeypore, Aurangábád and Ahmedábád, at the three latter places by request of the Chamber of Commerce. The year on the whole was one of barometric minimum and consequently of excessive rainfall. It was very similar in some respects to 1878, the lowness of the barometer in April and July and the high readings of June and November being noticeable in both years. The amount of rainfall recorded was more than thirteen inches in excess of the average in all seven meteorological districts of the Presidency proper, the excess in the Konkan amounting to nearly 39 inches. There was an unusual number of cyclonic disturbances of great severity, some of which caused great damage to life and property. One in particular, which passed over Cutch in May 1892, destroyed property valued at Rs. 12½ lákhs in that province. Other storms in the first week of September and in the third and fourth weeks of October caused great damage to the crops throughout the Presidency, especially in Gujarát and Rájputána, where heavy floods interrupted railway communications for some time.

Season and Crops.

In striking contrast to the cycle of dry seasons which preceded it, the year 1892-93 was marked by an unusually heavy and continuous rainfall, which, on the whole, was favourable to cultivation and made the year one of average prosperity for the agricultural classes. At the same time, the season was not so prosperous as was at one time expected. The rains began early; ploughing and sowing operations were generally completed in good time, and for the first two months of the season the young crops, favoured by gentle and continuous showers, were as fine as could have been wished. But from the end of August to the middle of October, the rainfall was the heaviest known for many years, beating down the crops and blackening the grain in the ear, and further causing floods, which in places breached roads and railways, swept away cattle, and did enormous damage to house and other property. When, however, the rain finally ceased, there was an unusual amount of moisture remaining in the soil, which enabled the cultivators to bring large areas under rabi cultivation and so recoup themselves to some extent for the losses, which the destruction of the kharif crops had entailed upon them. In the Ahmedábád, Kaira and Panch Maháls districts of the Northern Division the staple grains, bájri and jowári, are from their nature more liable to injury from excess of moisture than rice, the staple cereal product of Surat, Broach and Thána; the kharif crops consequently

in the first three of these districts were less successful than those in the last three; but the loss was made up by good crops of wheat and gram, and the results of the year were not unfavourable on the whole. In the Násik and Ahmednagar districts of the Central Division the kharif crops were spoilt by too much moisture, but rabi crops gave good returns and the cultivators' profits were above the average. The same remark applies to Poona and in some degree to Sholápur; but Khándesh and Sátára were not so fortunate, excessive rains damaging the cotton in one and both the kharif and rabi crops in the other. In the Southern Division the year, though perhaps not as prosperous as was at one time expected, compared very favourably with those that preceded it, unusually large rabi crops combined with an average kharif crop enabling the cultivators to make up to some extent the losses of the previous year. In Sind the season was of a most unusual character. The river was at first very late in rising and there was a great want of water for sowing operations, so that at one time fears were entertained of a general scarcity. At length, however, the inundation came and when it did come, rose to an unprecedented height. Simultaneously with it, came the heaviest fall of rain which had been known for years. This, combined with the high state of the river, caused severe floods, which did immense damage in the Hyderábád and Karáchi districts, sweeping away canal embankments, breaching the railway and destroying the kharif crops over a wide area. When the waters subsided, they left a large area fit for cultivation and the cold weather crops were unusually fine. At the same time much land was rendered water-logged and useless, and there was severe distress in parts of the Karáchi district. The other districts in Sind enjoyed comparatively speaking an immunity from floods, and both the kharif and rabi crops benefited from the abundant rainfall to the fullest degree, with the result that the season in these districts was the most successful known for some years.

Prices.

Prices of agricultural produce, with the important exception of cotton, generally showed a tendency to decline during the year. This was especially noticeable in the districts of Bijápur, Sholápur and Dhárwár, in Shikárpur and the Upper Sind Frontier district, where the scarcity of the previous years had forced prices up to famine rates; but in the case of these districts, though prices declined they had not reached their normal level by the end of the year. As a rule, the decline in price was more marked in the case of rabi crops such as wheat, tur and gram than in the kharif crops, as the out-turn of the latter was considerably diminished by the excessive rainfall; indeed in some districts the prices of the latter grains rose. The cessation of the heavy exports of wheat moreover had the effect of diminishing the demand for and consequently lowering the price of that commodity. Cotton advanced in price, adverse forecasts of the American crop inducing speculators to buy up large quantities at prices averaging from 30 to 50 per cent. above those of the previous year; towards the end of the year, however, there was a sharp fall, and many of the speculators lost heavily. An abundance of grass and fodder caused a marked decline in the prices of these articles throughout the Presidency.

Wages.

A large decrease in the supply of labour coupled with an improvement in the demand had the effect of raising the rate of wages for unskilled labour throughout the province of Sind. The diminution in the number of persons seeking work was mainly due to the fact that excellent harvests in Cutch and Márwár kept in their homes the inhabitants of those districts, who had crowded into Sind in the two previous years; while the scope for their employment was decidedly greater owing to the large extension of cultivation and to the number of works undertaken by Government agency to repair the damages done to the canals, roads and railways by the extensive floods of the year. In the Presidency

proper, wages for both kinds of labour in the Panch Mahâls district rose owing to the construction of the Godhra-Rutlam railway; rates in the Belgaum and Bijápur districts, where the scarcity of the previous year had cheapened labour, also showed a tendency to return to their former level. Elsewhere there were no variations of importance.

Forests.

An important change was introduced into the forest administration during the year by the partition of the Northern Circle into two smaller circles, called the Northern and Central Circles, corresponding with the revenue divisions of the Presidency. The total area of State forests in the Presidency, including Sind, was 13,830 square miles or 19 square miles more than in the previous year. Of this area 9,631 square miles were reserved and 4,199 protected forest. The changes in the area of the forests in the various circles were unimportant. Inquiries, however, were going on and draft notifications under Section 4 of the Forest Act were submitted for the settlement of 136 square miles in the Northern and 424 square miles in the Central Circles. The work of the Forest Survey Party has been noticed elsewhere. The total number of prosecutions for forest offences in the whole Presidency, including cases pending from the preceding year, was 2,461 against 1,756 in 1891-92, the increase being most marked in the Central and Southern Circles; and the number of cases compounded was 15,330 as compared with 15,831 in the previous year. The percentage of convictions in cases taken before the Magistrates fell off everywhere except in the Central Circle. No new privileges were given to the cultivators in any Collectorate, but the concessions previously granted continued unrestrained; free grants of timber of the value of Rs. 21,942 were made in the Northern, Central and Southern Circles. Working plans were formed for an area of 17,027 acres in the Thána District of the Northern Circle, and another of 20,101 acres in the Southern Circle. The progress of reproduction, both natural and artificial, was on the whole fairly satisfactory, considerable additions being made to the areas under plantations and cultural operations in the Northern and Central Circles. Fire conservancy showed a marked improvement in every circle except the Northern; here, however, the increase in the area traversed by fire was entirely due to the fact that the whole of the Dáng forests (which are not properly speaking State forests) suffered more or less from the ravages of fire. Several roads to facilitate the exploitation of timber, notably two through the Medwan and Naniwli Khinds in the West Thána Division, and one from Ghoda to Ambegaon in the Poona District, were completed or in progress during the year; and the usual repairs were carried out on existing roads and buildings. A comparison of the receipts and expenditure of the Forest Department during the year with that of former years is misleading, as, owing to Government having directed that the forest year shall in future correspond with the revenue year, the returns cover a period of fifteen months from 1st April 1892 to 30th June 1893, and consequently include the expenses of the department for three months April, May, and June, when there is little or no corresponding revenue credited. However, such as they are, the figures show that the gross receipts increased in every circle, but that the net revenue declined in all circles except the Southern; the net result of the year being an increase of Rs. 16,182, the total being Rs. $13\frac{9}{10}$ lákhs against Rs. $13\frac{3}{4}$ lákhs in the previous year.

Manufactures and Industries.

The total number of factories in the Bombay Presidency, to which the amended Act XI of 1891 applied, was 253, of which 119 were situated in the town and island of Bombay. The number of hands employed was 118,470, of which 22,844 were women and 5,946 children. The number of accidents reported during the year was 731, or 204 in excess of the number of the previous year; 13 resulted in death and 79 in serious injury. All the factories except 9 were

inspected by Government officers at least once during the year, most of them oftener. Two prosecutions were instituted during the year, one for omitting to give the full mid-day rest and working children under 14 as full-timers, and the other for employing children under the minimum age of 7 fixed by the Act. In the first case the owner of the mill was convicted and fined Rs. 200; in the second the directors of the mill were convicted, but the conviction was quashed on appeal by the superior Court.

The Boiler Inspection Act II of 1891 continued to work smoothly during the year. The work of inspecting boilers in Sind was transferred to the Bombay Boiler Inspection office, and with a view to enable the staff to meet the extra work thus entailed on it a third inspector was appointed. The number of boilers examined was 1,254 against 1,335 in 1891-92. There were no casualties causing injury or loss of life during the year. The number of candidates for engineer's certificates showed a considerable falling off, attributable apparently to the fact that during the last few years the number of certified engineers in the Presidency has increased beyond the demand for them. The expenditure of the department was considerably in excess of that of the previous year, owing to the increase in the establishment mentioned above; receipts remained almost the same. There remained, however, a large surplus of Rs. 16,718 at the end of the year which was added to the Boiler Fund, making the total amount at the credit of the Fund at the end of the year Rs. 52,895.

A report was received from the Committee of the Bombay Mill-owners' Association dealing with the year ending December 31st, 1892, together with a statistical table of the cotton spinning and weaving mills working in India on June 30th, 1893. The number of mills working in the Presidency on the latter date was the same as on the same day in 1892, those in the City and Island of Bombay being one less and in the Mofussil one more than in the preceding year. The results of the year were on the whole disappointing, as the high prices attained by the raw material seriously diminished profits. There were, however, some encouraging features. The exports of yarn to Japan, which received a severe check in the previous year, increased by over 96 per cent. and the improvement in the China trade noted in last year's report was steadily maintained, exports of yarn and piece-goods showing an increase of 5·68 and 63·61 per cent. respectively. The amended Factories Act worked smoothly throughout the year and there was only one prosecution for an infringement of its provisions. Rules under Sections 9, 13 and 18 of the Act were sanctioned by Government and came into force during the year. Certain points in these rules were considered open to objection by the Association and were still under discussion between a committee of that body and the Collector of Bombay at the close of the year.

The chief industries other than agriculture in the Bombay Presidency are the cotton mill industry, the manufacture of salt and the distillation of liquor which are dealt with elsewhere; the remaini g industries are comparatively sp aking small and u important. In Ahmedábád the kinkháb and sári manufacture and wood carving, and in Surat the making of gold and silver lace, silks a d brocades continued to prosper; and samples of the work done in these industries were collected by the Government agents and sent to the Chicago Exhibition. The silver work of Ahmednagar continued to improve, and exhibits sent to the Simla Exhibition gained the first prize there. The business of the Dápuri Brewery near Poona, increased considerably during the year, the unfavourable rate of exchange reducing the imports from foreign countries; and the Reay Paper Mills at Poona continued to manufacture that article on a large scale. Other industries generally were of purely local interest, and there is little to record with regard to them.

The total value of the sea-borne trade of the port of Bombay during the year 1891-93 was the largest ever recorded and amounted to 105½ crores of rupees or 6¾ crores of rupees more than in the previous year. This, at first sight, would seem to indicate a very prosperous year; but analysis shows that the improvement was only apparent, and that, in reality, the year 1892-93 was, comparatively speaking, one of commercial depression. In the first place in order to form an accurate estimate of the state of trade, it is necessary to separate transactions in treasure, from transactions in merchandise proper. If this be done, it will appear that nearly one-fifth of the total trade recorded represents transactions in treasure their value being 20½ crores of rupees or 7 crores more than in the previous year. Subtracting this from the total value recorded, there remains a sum of 85 crores of rupees which represents the total amount of real trade done during the year, and of which Rs. 65½ crores belong to the foreign and Rs. 19½ crores to the coasting trade. In the second place, it is to be noted, the rate of exchange was extremely low during the whole of the year; the value of all goods imported and exported was accordingly enhanced and consequently in many cases the value of the trade done rose, while in point of fact its volume declined. An examination of the imports and exports of merchandise proper under the head Foreign Trade shows that the value of each decreased, the figures for the year under review being Rs. 25¼ lákhs and Rs. 40⅔ lákhs respectively against Rs. 25¾ lákhs and Rs. 40⅘ lákhs in the previous year; and that with the exception of sugar, oils, machinery, and silk piece-goods under the one and cotton twist and yarn under the other, there was a falling off in all the principal articles of trade. The falling off in imports was especially marked in the case of cotton piece-goods, and twist and yarn, the values of which were 9 per cent. and 25 per cent. respectively below those of the previous year. When it is remembered that the totals for the latter year exhibited a decrease of 10½ per cent. and 17½ per cent. respectively on those for 1890-91, it is evident that this branch of trade has received a serious check during the past two years. The larger part of the loss appears to have fallen on the United Kingdom and to have been caused by the low rate of exchange, by the strikes among the Manchester operatives, and by the high price of the raw material towards the end of the year. Other articles of import, under which there was a serious decline, were steel, woollen manufactures and coal. Here again the loss fell chiefly on the British producers; imports of steel from the United Kingdom falling 41 per cent., while those from Belgium, the only other country which produces this metal in large quantities for the Indian markets, remained stationary. Imports of coal from the United Kingdom also decreased by 1½ per cent., the deficiency being made good by supplies of country coal from Calcutta. At the same time some articles were imported in larger quantities than in the previous year. Receipts of kerosine oil, both from Batoum and America, increased; and though the cheapness of the Russian article led to its being more commonly used, the American oil was steadily growing in favour owing to its superior lighting power, and the increase in the quantity of it imported was, comparatively speaking, much more marked than in the case of the Russian variety. Sugar was also received in larger quantities, especially from Germany and Hongkong; it would seem that exporters at these places expected that the cyclone at Mauritius would considerably diminish exports of sugar from that island and consequently sent larger shipments; the supply from Mauritius, however, did not fall as low as was expected and there was a large increase in the quantity imported, which overstocked the market at the close of the year. Imports of machinery and mill-work required for the new mills under construction in the Mofussil also increased, while the construction of the Godhra-Rutlam and other railways was the cause of an increase in the

Trade: Bombay.

amount of railway plant and rolling stock imported. The chief feature of the export trade was the cessation of the heavy shipments of grain and pulse, which were so noticeable in 1891-92, the total exports for the year under review being 43 per cent. smaller than those of the previous year; the decline however was to be expected, as in the latter year the failure of the Russian harvest had stimulated exports to an unusual extent. Exports of raw cotton showed a gratifying improvement, after the heavy decline of the past two years, but they were still below the average of the ten years ending with 1891-92. The improvement, however, was entirely caused by larger shipments to continental ports, as the United Kingdom, Hongkong and Japan took considerably less than in the previous year. Among the other articles of export seeds prove the truth of the remark made above, that in a year of abnormally low exchange an increase in the value does not necessarily imply an increase in the volume of the trade; for, though the value of the exports of this commodity rose by 7 per cent., the quantity exported was actually less than in the preceding year. A gratifying fact in connexion with the Bombay mill industry is to be noted in the improvement in the exports of locally manufactured cotton piece-goodsand twist and yarn to China, which showed an increase of 66 and 15 per cent. respectively over those of the previous year. An improvement in the exports of twist and yarn to Japan also showed that the products of the mills in that country had not yet succeeded in driving the Indian article entirely out of the market. The large transactions in treasure during the year need some remark. Their total value amounted, as above stated, to 20½ crores of rupees, Rs. 14½ crores of which represented imports and Rs. 6 crores exports, and was the highest ever recorded. A remarkable fact in this connexion was that for the first time since 1878-79 the exports of gold exceeded the imports, their value being 4½ crores of rupees against 1½ crores of rupees; the deficiency caused hereby, however, was fully made up by increased receipts of silver which amounted to Rs. 13$\frac{1}{10}$ crores against Rs. 1$\frac{4}{5}$ crores exported. Considering the trade distributed by countries and eliminating transactions in treasure, it appears that trade with the United Kingdom and France showed a decline; with the other countries of Europe an improvement. The falling off in trade with the United Kingdom was very marked, the value being only 21 crores of rupees against 28 crores of rupees in the previous year, and affected both imports and exports to an almost equal extent With the exception of machinery and mill-work, railway plant and rolling stock among imports, and indigo among exports, there was not a single article of trade of any importance in which there was an improvement. The decline in the trade with France on the other hand was entirely due to smaller transactions in one article, wheat, the exports of which were abnormally large in the previous year; transactions in other articles of trade, such as silk piece-goods and oil-seeds being only slightly less than in the preceding year, while exports of raw cotton showed a considerable increase. Trade with the other countries in Europe showed a marked improvement, which was most noticeable in the case of Austria and Germany. Coming to the trade with Eastern countries, it appears that both import and export trade with Japan and China increased, a fact which was mainly due in the case of the latter country to the larger exports of cotton goods and imports of sugar already mentioned above. Trade with Arabia also showed a satisfactory increase, but with Persia, the Straits Settlements, and Turkey in Asia transactions were fewer than in the preceding year. Unlike the foreign trade, the coasting trade exhibited a real and satisfactory increase, imports of merchandise showing an improvement of Rs. 24¾ lákhs and exports one of Rs. 30¼ lákhs, while transactions in treasure diminished by Rs. 4½ lákhs.

The sea-borne trade of the port of Karáchi which had been steadily increasing for the preceding five years received a severe check during the year under review, the total value falling from Rs. 1,561 lákhs to Rs. 1,128½ lákhs, a decrease of Rs. 432½ lákhs or 27·70 per cent. Unlike the port of Bombay, where, though foreign trade fell off, coasting trade showed a considerable improvement, the decrease extended both to the foreign and the coasting trade; but it was most marked, however, in the case of the former and represented nearly a third of the total value. The main cause of the enormous decline of nearly three and a quarter crores of rupees in the foreign trade was the cessation of the heavy shipments of wheat and seeds, which alone were less in value by Rs. 337½ lákhs than in the previous year. As has been remarked above, in the case of the Bombay trade, the transactions of the previous year in this commodity were artificially stimulated by the failure of the Russian crops and a considerable falling off in the total for the year under review was therefore to be looked for; but the actual decline far exceeded expectations and the total shipments were roughly speaking 40 per cent. below those for 1889-90 and 1890-91. There was also a decline of over half a crore of rupees in the import trade, which extended to nearly all the staple commodities, except white and coloured cotton piece-goods and railway plant and rolling stock. It is a remarkable fact, taken in connexion with the large increase in the imports of wine and spirits and kerosine oil in Bombay, that imports of these articles at Karáchi showed a heavy decrease; on the other hand, the increase in the shipments of rice, though they too were larger at Bombay than in the previous year, increased much more in proportion at Karáchi. Considering the trade distributed by countries it appears that, as in the case of Bombay, by far the largest part of the decline in the export trade was in transactions with the United Kingdom; but while shipments from Bombay to continental countries, except France, generally showed an increase, those from Karáchi showed a marked falling off in the case of all countries except Germany, which becomes still more evident when it is remembered that exports to Egypt, which declined from Rs. 176¼ lákhs to Rs. 54 lákhs during the year under review, are really exports to foreign countries, the vessels carrying them being merely consigned to Port Saíd for orders and in nearly all cases proceeding from there to some continental port. Coming to the import trade, it appears that two-thirds of the decline was in the products of the United Kingdom; but there was also a falling off in the imports of German and Belgian goods, while imports from France, Austria and Italy increased. Among Eastern countries, there was a decline in imports from Persia, Arabia and Turkey in Asia, but there was an increase in the amount of Indian produce and manufactures taken by those countries. The main feature of the coasting trade was the restriction of imports from Bombay and Bengal, and an increase in those from Madras and Burma; exports generally showed a tendency to increase, but not to a similar extent; and the net result of the year was a decline of 6·50 per cent. in the total value of the trade. *Karáchi.*

The total value of the trade at Aden rose from Rs. 753 lákhs to Rs. 817½ lákhs during the year under review and was the largest yet recorded. The increase was the more remarkable, as there was a heavy falling off of Rs. 15 lákhs in transactions in treasure, and was attributable to the continued demand for coffee in Europe and to large increases in the imports and exports of grain and skins. The improvement in the trade extended to both the Foreign and Indian trade, but there was a falling off of Rs. 2 lákhs in the inland trade. There were larger imports from all foreign countries with the exception of Egypt and Zanzibar, where, however, the decline was solely due to smaller treasure transactions. The net increase in the imports for the year was nearly Rs. 28¾ lákhs. Exports showed an almost corresponding increase, which also extended *Aden.*

to nearly all the foreign countries with which the transactions were at all large; the only important exception being Egypt, trade with which decreased by Rs. 3½ lákhs. Coming to the Indian trade, there was a marked increase in imports of piece-goods, rice and sugar from Calcutta and Bombay; exports of merchandise also rose slightly. The value of the North-East African trade slightly declined on the whole, an increase of Rs. 11¾ lákhs in the trade with the British and French ports on the Somáli Coast being more than counterbalanced by a decrease of Rs. 14 lákhs in the transactions with the Italian ports on the Red Sea. Taking the whole trade together, there was an increase in the import and export of all the main articles of trade, the only decrease of importance being in hides, the trade in which was still affected by the epidemic, which decimated the cattle in Somáli land in 1890 and 1891, and in the exports of cotton piece-goods which were slightly below those of the preceding year.

Public Works.

The total expenditure of the Public Works Department on civil works amounted during the year to Rs. 56½ lákhs as against Rs. 62⅘ lákhs in the previous year, Imperial funds contributing Rs. 2⅔ lákhs and Provincial Rs. 34⅘ lákhs out of this amount, the remainder being made up from miscellaneous contributions and Local Funds. As in the previous year, the whole of the Imperial expenditure was devoted to the works included under the head Civil Buildings. No new works of any importance were undertaken, but progress was made in providing for the wants of several departments, especially the Salt Department, in the matter of roads, buildings and water-supply. Among the latter the repair of the tank at Khárághoda and the construction of offices at Castle Rock were the works on which the largest outlay was incurred. A number of works were also in progress out of a budget grant of Rs. 81,500 on the Somáli Coast, including a civil dispensary at Zaila, guard-houses and a prison at Dubar and Ambos, the enlargement of the goods zariba at Bulhar, and improvements to the hill roads or passes called the Rugger, Shaik Jarato and Dari. The outlay from Provincial and Local Funds and contributions, including that on Forest and Customs buildings, was Rs. 21⅗ lákhs against Rs. 25⅘ lákhs in the previous year. Several new Mámlatdárs' kacheris and mukhtyarkarates were built, and repairs and alterations effected to a number of other offices of this description. Record accommodation was provided at Kárwár and Ratnágiri; and offices for Collectors and Assistant Collectors were completed at Broach and Alibág, and in progress at Dhárwár. A court and office for the Assistant Political Agent, Mahi Kántha, at Sádra, was under construction, and improvements and additions to the Residency at Aden and Agency office at Bhuj were carried out. Two bungalows for district officers and a treasury and jail were completed in the Native State of Wajiria. The new distillery buildings at Surat were completed at a total cost of Rs. 1,01,745; as also the additional accommodation in progress for the past year for the Abkári Department at Aden. The maintenance of buildings of archæological interest received considerable attention during the year, some very necessary works of restoration and repair being carried out at Champaner and Hálol in the district of the Panch Maháls, Ahmedábád, Bijápur, and Dábhol in the Ratnágiri Collectorate. In the High Court building in Bombay record racks were constructed; and additions and alterations to the Claremount premises at Byculla, with a view to adapting them for the accommodation of the Courts of the 2nd and 4th Presidency Magistrates, were sanctioned and in progress. Record-rooms for the District Judge's Court-house at Dhulia were completed. The Railway Magistrate's bungalow at Bhusával and Court-houses for Subordinate Judges at Yával and Dhulia were also completed during the year. The work of constructing a new Central Jail for Gujarát at Ahmedábád was vigorously pushed on; the enclosure wall was completed and

all the large interior buildings were practically finished; the outlay for the year was Rs. 1,63,227, and the total outlay up to the end of the year Rs. 4,49,389, against an estimate of Rs. 5,41,714. Some of the buildings for the new Central Jail for Sind at Hyderábád were finished, the total outlay to the end of the year being Rs. 2,24,500, against an estimate of Rs. 4,56,040; the question of water-supply, however, remained unsettled, owing to the municipality not having replied as to the charges that would be made if the water was supplied by them. Alterations to the condemned cells at Shikárpur were completed. The total expenditure during the year towards securing suitable accommodation for the police in various parts of the Presidency was Rs. 1,13,831. Among educational buildings, the most important completed during the year were the Anjuman-i-Islám School, the residence for the Principal of the Deccan College, the laboratory for the Wilson College, additions and alterations to the Elphinstone College, and a third storey for the accommodation of resident students at St. Joseph's Convent School, Karáchi. A large number of school buildings were also erected by the Public Works Department in the Mofussil on behalf of Local or Municipal Boards. The number of medical works completed during the year was large. At the St. George's Hospital at Bombay, the Male Hospital, with the Resident Surgeon's quarters, and an iron enclosure railing along the eastern boundary were completed during the year; as was also the hospital for women and children at Poona. Improvements to the drainage, water-supply, &c., of the Sir Dinshaw Mánekji Petit and Bái Motlibái Hospitals and Dwárkádás Lallubhái Dispensary, completed in the previous year, were carried out during the year. At Aden a complete outfit of new furniture was provided for the new European General Hospital at Steamer Point, completed in the past year; and quarantine quarters constructed on the Alia Island. A cinerator and sheds for animals suffering from contagious diseases was constructed at Sewri, Bombay. Besides these improvements, additions and new works were in progress or completed at two Civil Hospitals, and a number of Local Fund Dispensaries at various stations. Under miscellaneous buildings an office for the Protector of Pilgrims, in the compound of the Head Police Office at Bombay, was constructed.

The total outlay on communications during the year was Rs. 26½ lákhs, as against Rs. 29$\frac{1}{10}$ lákhs in 1891-92. On the Dhansura-Harsol road, in the Ahmedábád District, the bridge over the Mahájam river was completed during the year, bringing the total cost of the road to Rs. 1,05,814, against a revised estimate of Rs. 1,06,318. The large iron bridge over the Sábarmati at Ahmedábád was finally completed and opened to traffic at a cost of Rs. 4,14,969. The whole of the earthwork and masonry on the Ahmedábád-Bareja road was completed during the year. In the Thána District the Dáhánu-Jawhár road was completed at a total cost of Rs. 2,19,284, as was also the Bhiwndi-Váda road. In the Belgaum District the outlay on the Nipáni-Mahálingpur and Gokák-Navalgund Provincial roads reached a total of Rs. 3,07,642 and Rs. 4,04,204, respectively, during the year, and the works were nearing completion. Operations were also in progress on numerous other minor works of communication in different parts of the Presidency, details of which are given in the appendices at the end of this volume. Several dharmsháles and travellers' bungalows were constructed or repaired during the year; and the planting and preservation of road-side trees continued to receive careful attention.

The outlay on miscellaneous public improvements was Rs. 5 lákhs, as compared with Rs. 5½ lákhs in the previous year. Among the principal works completed or in progress may be mentioned the Victoria Jubilee water-works at Janjira, the water-works for Hubli and Dhulia, and the experimental well-sinking in

connexion with the proposed water-works for Surat. Numerous works for the completion or improvement of village water-supply were also completed or in progress. The project for draining a portion of the town of Ahmedábád was carried out and completed as far as designed; the sewage farm was connected with the pumping station and found to work fairly well. The works to protect the City of Surat from the flooding of the Tápti river were in progress at the end of the year.

A decision was arrived at, during the year under review, by Her Majesty's Secretary of State, on the claim preferred by the Bombay Government against the Government of India for compensation, amounting to Rs. 70,000, for loss inflicted on Provincial revenues by the transfer of Military Works at the larger stations to the control of the Director General of Military Works. The Government of India had refused to entertain the claim, although they agreed to share the loss, and as this was considered inequitable by the Bombay Government, the matter had been referred to the Secretary of State for orders. His Lordship decided that the offer made by the Government of India to pay a sum equal to half the loss sustained was adequate, and should be accepted by the Bombay Government. As a result of this decision, an increase of Rs. 70,000 (at the rate of Rs. 35,000 for the two years 1890-91 and 1891-92) was made in the Provincial Public Works assignment for the year. The total expenditure (including contributions) at the twelve military stations under the control of the Bombay Public Works Department was Rs. 1$\frac{9}{10}$ lákhs, as against Rs. 2$\frac{1}{2}$ lákhs in the previous year. The barracks at Ahmedábád and Purandhar were repaired, and a new regimental institute constructed at Khandála. A magazine for the storage of small arms ammunition at Bhuj, and new workshops for the artificers attached to the Ahmednagar Remount Depôt were completed during the year. The Páshán Tank near Kirkee, and Bhingar aqueduct at Ahmednagar were maintained in an efficient state of repair, at a cost of Rs. 2,334; and progress was made with the Sátára camp water-supply scheme, the outlay up to the close of the year being Rs. 40,332, against a revised estimate of Rs. 70,465. The improvements to the fortified post at Ahmedábád were completed, while works in connexion with the alterations to the Purandhar Fort and the conversion of the old arsenal at Málegaon into a fortified post were in progress.

Railways.

The extension of lines of railway under the control of the Bombay Government made good progress during the year. The total length of line open for traffic increased from 5,617$\frac{1}{4}$ miles to 5,783 miles, owing to the opening for traffic of the Hyderábád-Umarkot Railway as far as Shádipalli and of the Godhra-Rutlám Railway as far as Limkhera, and the taking over by the Southern Marátha Railway Company of the Guntákul-Dharmáveram and Yesvantpur-Dodballápur sections of the Guntákul-Bangalore Railway. One hundred and fifty-four and a quarter miles, comprised in the Godhra-Rutlam, Pálanpur-Deesa and Jetalsar-Rájkot Railways, were under construction during the year. There were also 1,256$\frac{3}{4}$ miles surveyed or under survey at the close of the year.

There were no additions made or authorized during the year to the subscribed capital of the G. I. P. and B. B. & C. I. Railways, which remained at a sum a little in excess of 34 millions sterling as in the previous year. The capital of the Southern Marátha Railway was increased during the year by £75,000 advanced by the Secretary of State, and stood at the end of the year at rather over 6$\frac{1}{2}$ millions sterling. £600,000 of the Company's 3$\frac{1}{2}$ per cent. debentures fell due at the beginning of the year under review, but were re-issued at 3$\frac{1}{4}$ per cent. for 7 years. The capital of the Mysore State Railway was nearly 1$\frac{1}{4}$ millions sterling, while the combined capital of the Dhond-Manmad Railway, Wardha Coal Railway, the Berárs Railways, the Kolhápur Railway, the Rájpu-

tána-Málwa Railway, the Bhávnagar-Gondal-Junágad-Porbandar Railway, and the Morvi Railway, amounted to over 17½ crores of rupees.

One hundred and sixty-nine persons were killed and 321 were injured on the various lines in the course of the year. The number of accidents to trains, including collisions with cattle, was 1,319 as compared with 1,211 in the previous year, the most serious accident being a collision on the Rájputána-Málwa Railway near Ajmere of a passenger mail train with a goods train, in which 5 railway servants were killed and 4 others injured.

With the cessation of the abnormal exports of wheat, which swelled the traffic receipts of the G. I. P. Railway in the previous year, there was naturally a falling off in the amount of goods carried and consequently in the earnings of the line during the year under review. The gross earnings of the railway were Rs. 45⅘ lákhs and the net earnings Rs. 30⅜ lákhs less than in the preceding year, but they were nevertheless in excess of those in 1890. The gross earnings of the B. B. & C. I. Railway, notwithstanding a diminished goods traffic consequent on smaller exports of wheat, improved by over Rs. 1 lákh; but an increase in the working expenses of over Rs. 2 lákhs reduced the net earnings by almost the same amount. Heavy expenditure incurred in repairing damage done by floods combined with the scarcity prevailing in the country traversed by the line, diminished the net earnings of the Southern Marátha Railway by Rs. 2⅓ lákhs; but the net earnings of the Rájputána-Málwa showed an improvement of nearly Rs. 9 lákhs. The net earnings of His Highness the Gáikwár's Railways (except the Petlád line where the decrease was very small) and of the Morvi Railway were in excess of those of the previous year, owing to the favourable season; but the net earnings of the Bhávnagar-Gondal-Junágad-Porbandar Railway fell off, the increase in receipts not compensating for the heavy rise in working expenses consequent on large renewals of sleepers along the line.

Telegraphs.

The mileage of the telegraph wires in the Presidency increased from 20,563 miles to 22,251 miles and that of telegraph lines from 5,359 miles to 5,808 miles during the year. The figures for 1892-93 are however, it must be noted, swelled by the transference to the Bombay Office of 147 miles of line and 587 miles of wire on the Rájputána-Málwa Railway between Pálanpur and Sábarmati, which were previously under the Rájputána Office. The number of new offices opened excluding fourteen on the Rájputána-Málwa line and ten on the Gáekwár's Mehsána-Pátan-Viramgam Railway not previously reported was 33, while eight previously open were closed, so that there was a net increase of 25 in the number of offices open at the end of the year. The Indian share of collections at Government offices rose from Rs. 14,73,098 to Rs. 16,05,453, the improvement being due to a large increase in traffic. The traffic return on the Persian Gulf section showed a decided falling off; the receipts however converted into rupees exceeded those of 1891-92, a fact which was attributable to an alteration in the rate of exchange which improved the value of the rupee as compared with that of the franc. The average speed of transmission of messages from Karáchi to the United Kingdom *viâ* Teherán showed à diminution and the percentage of traffic by that route as opposed to that *viâ* Turkey showed an increase.

Post Office.

The administration of the Post Office was marked by the introduction of several changes consequent on the extension to the Presidency of the provisions of the Universal Postal Convention of Vienna. The most important of these were concessions connected with the limit of size and weight of samples despatched to foreign countries, and the reduction of the charges on certain classes of letters. The operations of the Post Office generally continued to show a steady expansion.

Postal facilities were increased by the addition of 13 new post offices, 205 letter-boxes and 75 postmen, while the mileage of postal lines of communication rose from 12,549 to 13,030 miles. The total number of articles issued for delivery during the year was 66,008,176, an increase of 1,069,380 over the number for 1891-92. There was a heavy falling off in the revenue derived from the Foreign Parcel Post, owing to a diminution in the number of parcels exchanged with the United Kingdom through the agency of the Peninsular and Oriental Steam Navigation Company; this was attributable to the reduction in the rates of postage on book packets, which led the public to despatch articles by book post that were formerly sent by parcel post. The issues of Inland Money Orders showed an increase while those of Foreign Money Orders declined, owing probably to the fluctuations in the rates of exchange. The steady increase in the Savings Banks Deposits, which has been a subject of remark during the last few years, was well maintained, the balance in hand at the end of the year being Rs. 2,48,50,989 against Rs. 2,20,31,038 in the previous year, and there was an increase in the value of Government securities purchased by depositors through the medium of the Post Office. Receipts from commission on articles sent by value payable post showed an improvement of Rs. 8,882, the number of articles being 44,008 and their declared value Rs. 6½ lákhs more than in 1891-92. Complaints from the public were rather more numerous during the year; but the proportion found on inquiry to be well-grounded was almost the same as in 1891-92. The District Post arrangements worked satisfactorily throughout the year.

Irrigation

The entire outlay on irrigation works throughout the Presidency during the year amounted to nearly Rs. 24¾ lákhs as compared with Rs. 23$\frac{1}{10}$ lákhs in the previous year. The principal works in progress were, in the Deccan the Nira Canal, and in Sind the construction of a new feeder to the Western Nára and of the Dhámrao Canal, and the commencement of the improvements to the Unharwáh. The work of re-constructing the Nehr Tank dam in the Sátára District and that of providing distributaries for the Pársul Tank was also proceeded with. Work was continued on the Játri Keti clearance in the Eastern Nára, and the construction of an escape sluice from the Nára into the Játri Dhands commenced. In the Fuleli District one of the two regulators mentioned in the report for the previous year was finished and one was in progress. In the Karáchi District work was started on the Báráhgaza Khadi bund. A decision of some importance was arrived at by Government during the year, by which it was decided to abandon the practice hitherto followed of requiring cultivators in Gujarát and the Southern Marátha Country to contribute to the cost of repairing irrigation tanks as a condition precedent to the execution of such repairs. In future, funds for the repair and up-keep of all irrigation tanks, both large and small, will be provided from Public Works grants, preference being given in order of execution to works towards the cost of which the cultivators are willing to contribute in money or labour or both, but such contributions will be limited to 10 per cent. of the estimated cost of the works.

The total area irrigated from all works in the Presidency proper during the year was 65,487 acres against 96,025 acres in the previous year, while the gross assessed revenue from all sources amounted to Rs. 4,79,042 or Rs 97,544 less than in 1891-92. The decrease was entirely due to the heavy rainfall of the year which diminished the demand for water from the works and led to a decrease of 31·80 per cent. on the area irrigated.

In Sind the inundation of 1892 was remarkable, the rise of the river being so long delayed that at one time fears of scarcity were entertained. Water was not available for full supply in the canals until nearly six weeks later than usual, but after this the river fortunately rose to a good height which was maintained

until the first week in September and of which full advantage was taken. Numerous breaches occurred in the bunds, but only in the Western Nára district did much damage occur, the Pritchard canal and the railway suffering severely and great damage being caused to cultivators and also to the railway by rain-floods from the hills to the west, which appeared for the first time for many years.

Finance: General.

The total receipts for the year under all heads, Imperial, Provincial and Local, amounted to Rs. 1,333$\frac{3}{5}$ lákhs as compared with Rs. 1,329$\frac{3}{4}$ lákhs in 1891-92, and the expenditure to Rs. 910$\frac{1}{4}$ lákhs as compared with Rs. 888$\frac{1}{2}$ lákhs in 1891-92. The net surplus was thus Rs. 423$\frac{1}{20}$ lákhs or Rs. 17$\frac{3}{4}$ lákhs less than in the preceding year. Receipts showed an increase of Rs. 3$\frac{9}{10}$ lákhs, the improvement being most marked in the Imperial, Civil and Telegraph Departments. There was a heavy falling off under Civil Provincial and local, Military and Postal Departments. On the expenditure side there was an increase of Rs. 21$\frac{2}{5}$ lákhs principally in Imperial and Provincial Civil Departments, and Imperial Irrigation, Telegraph and Military Departments. On the other hand expenditure on Provincial Civil Works and Provincial State Railway construction showed a marked decrease.

Imperial.

Imperial Civil receipts amounted to Rs. 809$\frac{2}{5}$ lákhs as compared with Rs. 801$\frac{1}{2}$ lákhs in 1891-92. The net increase of revenue was chiefly due to larger receipts from Land Revenue and the Mint which more than counterbalanced a heavy falling off of Rs. 25 lákhs under Salt and Opium; revenue from Customs, Assessed Taxes and Stamps also showed an improvement. The increase in Land Revenue was due to the payment, in certain districts, of large arrears due in the previous year, to the introduction of revised survey settlements, and to the fact that the sale-proceeds of lands on the Esplanade in Bombay were credited to this head instead of to "Miscellaneous" as hitherto. The improvement in the Mint receipts was entirely due to the large quantity of silver coined. The increase under the head Stamps was caused by special receipts of stamp duty charged on the probate of the will of a Bombay millionaire and by the issues of the Bombay and Karáchi Port Trust debentures. Larger exports of rice and imports of brandy and whisky tended to swell the receipts under Customs; while a favourable season, combined with a large increase in the profits made by the different railways and the cotton mills in Bombay, caused a rise of Rs. 1$\frac{1}{6}$ lákhs in the collections of "Assessed Taxes." The decline in the Opium revenue was due to the excessive exports of the previous year consequent on the reduction of the pass fee, which overstocked the China market and diminished exports during the year under report. The falling off in Salt revenue was due to the fact that receipts in the previous year were unusually high and included Excise duty collected on salt manufactured in Portuguese India, an impost the levy of which ceased during the year owing to the termination of the Anglo-Portuguese treaty. Expenditure rose from Rs. 81$\frac{1}{3}$ lákhs to Rs. 83$\frac{9}{10}$ lákhs. The net increase of Rs. 2$\frac{3}{5}$ lákhs was due to increases in expenditure under Refunds and Drawbacks, Salt, Mint, Political, Territorial and Political Pensions and Superannuation and Retired Allowances, which were counterbalanced to some extent by decreases under Assignments and Compensations, Excise, Police and Scientific and other Minor Departments. There was an increase of over ·2 lákhs in the amount of Refunds and Drawbacks granted, due partly to the refund to the Bombay Port Trust of composition of stamp duty on the Prince's Dock Loan, and partly to the refund of the Portuguese share of the customs receipts for the tenth, eleventh and twelfth years of the Anglo-Portuguese treaty. The increase under Salt was mainly due to the cost of the new preventive establishment for the Portuguese Frontier and to the expenditure on the Goa Mixed Commission, while that

under Mint was attributable to the expenses entailed by the increased out-turn of coinage. The expenses of the Somáli Coast survey and Aida-Galleh expedition, combined with the transfer to this head of allowances formerly paid or brought to account elsewhere, caused an increase in the expenditure under the head Political, while the sum expended in Territorial and Political Pensions was swelled by the grant of new pensions and payment of arrears during the year. The principal decrease was one of Rs. 2⅔ lákhs under Assignments and Compensations attributable to the non-payment to the Goanese Government of the usual subsidy of Rs. 4 lákhs owing to the termination of the treaty and also to the fact that Rs. 99,000 less than in the previous year were paid as compensation for salt pans. The only other items of decrease which are sufficiently important to call for remark were one of Rs. 69,736 under Scientific and Minor Departments due to the actuals for the previous year having included the cost of the census operations and another of Rs. 38,135 under Police, which was merely nominal and was due to the transference to Provincial account of the North-Western and Rájputána-Malwa Railway Police charges. The surplus of Imperial Civil revenue over expenditure was Rs. 725¾ lákhs as compared with nearly Rs. 720 lákhs in the previous year.

Provincial.

The Provincial revenue of the year, including receipts under departmental heads, amounted, in all, to over Rs. 405¼ lákhs as compared with Rs. 407½ lákhs in 1891-92, or a decrease of nearly Rs. 1 7/10 lákhs. The main item of decrease was one of nearly Rs. 6 lákhs under Land Revenue which was the net result of the curtailment, in the present contract, of the Provincial share by over Rs. 15 lákhs, counterbalanced by allotments subsequently made to balance Provincial expenditure and an increase in collections due to the introduction of revised survey rates. The only other item of decrease that needs explanation is one of Rs. 1½ lákhs under Contributions from Local Funds which was attributable to a grant of that amount made by the Hyderábád and Thar and Párkar Local Boards towards the completion of the Hyderábád-Umarkot Railway in 1891-92 not having been repeated during the year. These decreases were to some extent compensated by an increase under Stamps, Assessed Taxes, Interest and Police. The first two of these have already been explained; of the remaining two, the increase under Interest was due to larger loans to cultivators in former years, while that under Police was caused by the payment of arrears, by the Bombay Port Trust, of the moiety of the Dock and Harbour Police charges and to a large re-adjustment of the value of muskets returned to the Military Department in connexion with the re-arming of the Mofussil and Agency Police. Provincial expenditure declined from Rs. 412¾ lákhs to Rs. 408½ lákhs. The net decrease of Rs. 4,30,415 was entirely due to a diminution of nearly Rs. 12 lákhs in the expenditure on departmental heads, especially Railway Construction and Buildings and Roads—Civil Works in charge of Civil Officers. Expenditure under heads other than departmental showed an increase of nearly Rs. 7⅔ lakhs, the principal item being one of Rs. 7¼ lákhs under Assignments and Compensations due to the payment in arrears from October 1878 of compensation due to the Pálanpur Darbár and to an increase in the adjustment of alienated land revenue, chiefly in the Shikárpur District. There were also increases of Rs. 1¼ lákhs under Land Revenue, of Rs. 1¼ lákhs under Stationery and Printing, and of Rs. 94,081 under Medical which were counterbalanced by a decrease of nearly Rs. 4 lákhs under Police and contributions to Local Funds taken together. The net results of Provincial revenue and expenditure for the year were a deficit of nearly Rs. 2¾ lákhs, as compared with a deficit of Rs. 5¼ lakhs in the previous year.

Mint.

No gold was tendered for coinage during the year. The amount of silver bullion received from the Currency Department for coinage during the year

was Rs. 9,55,91,009, an increase of Rs. 552¾ lákhs over the amount received in the previous year. The amount of British India uncurrent coin received for re-coinage showed a decrease, the nominal value being Rs. 84,506 against Rs. 1,43,148 in the preceding year. Besides these, old Bikanir rupees of the gross value of Rs. 1,02,030 were received from the Political Agent, Bikanir, under the Native Coinage Act on behalf of the Bikanir Darbár. Imports of silver into the Port of Bombay reached a net value of 1,122½ lákhs of rupees against Rs. 677⅛ lákhs in 1891-92; the amount of silver tendered for coinage showing a corresponding increase, the figures for the two years being 834 lákhs and 468½ lákhs of tolás respectively. The nominal value of the silver coin issued from the Mint during the year was, with the exception of 1877-78, the highest ever recorded, being nearly 9¾ crores of rupees against 4 crores in the preceding year. The increase in the amount of coinage turned out was the cause of a large improvement in the revenue of the Mint, which was Rs. 21 lákhs against Rs. 8 9/10 lákhs in the preceding year. There was an increase from the same cause in the current expenditure, which rose from Rs. 8 3/10 lákhs in 1891-92 to Rs. 13 lákhs during the year. The net profits of the Mint showed an enormous increase, being Rs. 7 9/10 lákhs against little more than half a lákh in the preceding year.

Paper Currency.

The gross circulation of notes of all denominations on the 31st March 1893 was Rs. 790 3/10 lákhs against Rs. 756⅔ lákhs on the same date in the previous year. The increase extended to notes of all denominations except those of Rs. 10,000, which, however, are mainly used as part of the Reserve Treasury balance and consequently need not be taken into account. Taking the notes of a value of Rs. 100 and under separately, it appears that the circulation of all notes except those of Rs. 5 has been steadily increasing during the whole of the last two years. The sudden decrease in the circulation of those of Rs. 5 moreover, which began in January 1892 on the discovery that a large number of notes of that denomination had been forged, was checked during the year, and the figures for the year seem to indicate that public confidence in these notes is gradually being restored. In considering the circulation of notes of Rs. 500 and over, it is necessary to exclude those forming part of the Treasury balance and to bear in mind that the circulation always tends to shrink in December when silver is needed to pay for produce brought for export and to expand during the monsoon, when silver is stored in the bank. If this be done, it will be found that the circulation for the year showed a decided increase over that of 1891-92, a fact which was no doubt due to the exceptionally large imports of silver. The proportion of notes cancelled was considerably higher than in 1891-92, partly owing to the practice now following of invariably cancelling notes that are soiled to any extent, and partly to a panic which arose in the Presidency town in the month of August, after the issue of the Government of India notification against stamping notes with trade advertisements. It is not improbable that this alarm was first created by Márwáris, who are said to have bought up at a discount notes bearing endorsements and stamps. It was aggravated by an unfortunate mistake on the part of the City Police, who, in one division of the City, announced that, after a certain date, no notes bearing endorsements of any kind would be cashed. The result was that notes not absolutely free from endorsements were refused acceptance in the bazár, and the currency office was besieged for several days by an excited throng eager to cash their notes, who kept the staff engaged until a late hour of the evening. This panic subsided as rapidly as it had arisen. The Karáchi Circle also showed a net increase, but it was not so general as that of the Bombay Circle, the improvement being confined to notes of Rs. 10, Rs. 100, Rs. 500 and Rs. 10,000; other denominations showed a falling off in circulation.

Land Revenue.

The net amount of Land revenue for collection rose from Rs. 361 1/16 lákhs to Rs. 373 2/3 lákhs; actual collections were Rs. 370¼ lákhs against Rs. 357 lákhs in the previous year. The proportion collected to the amount due was therefore slightly higher during the year under review. The revenue demand increased everywhere owing to the introduction of revision settlements and to the large extension of the area under cultivation. The number of cases, in which distraint was resorted to, showed a marked decrease.

Sea Customs: *Bombay.*

The total net customs revenue collected at the port of Bombay during the year under review was rather over Rs. 25¼ lákhs against Rs. 23 9/10 lákhs in 1891-92, imports yielding Rs. 22¾ lákhs and exports Rs. 2¼ lákhs against Rs. 21 4/5 lákhs and Rs. 1 4/5 lákhs respectively in the preceding year. The only article on which export duty was charged was rice, and the receipts from this source rose by half a lákh of rupees owing partly to larger exports of rice to Muscat, Mozambique, Ceylon and Aden, and partly to the levy of duty on shipments of rice to the Portuguese Indian ports in consequence of the termination of the Anglo-Portuguese Treaty, rice having previously been exported free. The improvement in the amount of import duty is the net result of a large increase in the receipts from the duty on petroleum and potable spirits counterbalanced by a falling off under other liquors, and arms, ammunition, and military stores. A large rise of nearly 2 1/5 crores of gallons in the amount imported was responsible for the increase from the duty on petroleum receipts. The Batoum variety continued to undersell the American oil during the year and constituted four-fifths of the total amount imported. As might have been expected after the unusually small imports of the previous year, imports of potable spirits rose considerably. The tendency on the part of importers to substitute under-proof for over-proof spirits, which has been observable since the amendment of the Tariff Act, was still more noticeable during the year under report, the average strength of the spirit being 9·7 against 9·4 in the previous year. Whisky continued to be taken in increasing quantities in preference to brandy, and contributed 49 per cent. of the total imports, while only 43 per cent. were classed as brandy; in the previous year the percentages were almost equal. Imports of spirits of wine, which, though not classed as potable spirits, are largely drunk mixed with water as an intoxicant, also showed a considerable increase. Receipts from import duty on ammunition were unusually large in the previous year, owing to large stocks imported by two trading societies newly established in Bombay, and the falling off in the revenue from this source during the year under review was apparently due to this cause.

The division of the common receipts for the tenth, eleventh and twelfth years of the Anglo-Portuguese Treaty, which terminated on the 15th January 1892, was finally completed during the year and the amount due to the Portuguese Government fixed as Rs. 3,72,439. A further sum of Rs. 39,847 was awarded to the Portuguese Government on account of duty on goods re-exported by land from British India to Daman during the 12 years' currency of the Treaty. The number of cases adjudicated under the Sea Customs Act during the year was double that of the previous year, the increase being especially noticeable in cases under the Merchandise Marks Act which were almost three times as numerous as in the previous year. The working expenditure of the department rose from Rs. 3½ lákhs in 1891-92 to Rs. 3¾ lákhs during the year under review, changes in the pay of the establishment being mainly responsible for the difference.

Karáchi.

In contrast to the improvement in revenue from sea customs at the port of Bombay, the net customs revenues at the port of Karáchi showed a falling off, the total amount being Rs. 7⅔ lákhs against Rs. 8 1/10 lákhs in the previous

year. The decrease was almost entirely in the amount of import duty collected and was due to a diminution in the imports of spirits and petroleum.

Land Customs *Bombay.*

Considerable attention was paid during the year under report to the thorough organization of the land customs lines on the Goa and Daman frontiers which were established in the previous year on the termination of the Anglo-Portuguese Treaty. A new customs-post was established at Majalli in the Kánara District which brought the total number of custom houses open on both frontiers to eleven. The total collections at these stations exclusive of salt duty amounted to Rs. 33,723 as compared with Rs. 4,699 in the previous year. The increase was due to collections having been made during the whole of the year under review, the figures for the previous year representing the collections for 2½ months only. An item of Rs. 9,000, which is annually paid to the British Government by the Dharampor State as *chouth* on account of a quarter share of certain transit duties, was also received and credited under this head.

Opium.

No change was made during the year under report in the rates of duty on opium. There was a large decrease of 4,193 in the number of chests imported into Bombay, while exports to China also fell off by 3,878½ chests. The total licit sales in British districts also fell off from 140,638 lbs. in 1891-92 to 127,149 lbs. in the year under review, a decrease of 13,489 lbs. The decrease in the sales was most marked in the districts of Ahmedábád and Kaira, where there was a decline of nearly 17 per cent. in the amount sold; in the former district, the sales have been steadily declining for 3 years and for the year under report were 46 per cent. lower than the average for the three years ending 1889-90. There were also large decreases in Bombay city, Sátára, Khándesh and Hyderábád. Some important changes were made in the details of the administration during the year. The condition in the license penalizing the farmers for sales below a fixed standard was withdrawn, the sale of opium for consumption on the premises was prohibited and the maximum allowed to be sold to one person at a time without a special pass was reduced from ten to two tolas. Instead of paying the license fees, the farmers were required to maintain additional establishments for the supervision of their retailers and the prevention of smuggling. These changes were in force in all districts except Bombay, where the term, for which the farm was held, had not expired, and in the five southern districts, where on account of the small consumption of opium, the old license-fee system was retained. In the Native States of the Presidency licit sales declined from 161,762 lbs. in 1891-92 to 154,806 lbs. in 1892-93. The total Imperial revenue from opium, including fees on account of transhipment and miscellaneous receipts, fell from Rs. 175⅘ lákhs in the previous year to Rs. 151⅓ lákhs during the year under review, while the net excise revenue was Rs. 9¼ lákhs against Rs. 10½ lákhs in the preceding year. There was practically no variation in the expenditure of the department.

Salt: *Presidency proper.*

The task of assessing the compensation due to the owners of salt-pans in Portuguese territory, which had been farmed to British agents previous to the termination of the Anglo-Portuguese treaty, was undertaken during the year by a Mixed Commission consisting of two British and three Portuguese members. After a protracted inquiry lasting over six months, the sum due was fixed at Rs. 1$\frac{3}{10}$ lákhs or rather less than one-fourth of that claimed. Considerable increases were found necessary in the preventive establishments on the Goa and Daman frontiers which were entertained in the previous year on the expiry of the treaty. Inquiries were going on during the year with a view to the elaboration of proposals for equalizing the burdens upon the proprietors of new and old salt pans by the substitution of a royalty on the amount of salt produced for the ground rents at present levied. With a view to discourage the unwhole-

some practice of curing fish with salt-earth, instead of salt, several new fish-curing yards were opened during the year for the convenience of the curers, and within a certain radius of these yards the removal of salt-earth was forbidden. The total amount of salt manufactured in the Presidency was 91½ lákhs of maunds, against a total for the previous year of 107⅞ lákhs of maunds. Of this amount, 23⅔ lákhs were Barágra salt manufactured at the Khárághoda salt works, 3⅕ lákhs were manufactured at Bulsár in the Surat district and 64 9/10 lákhs in the rest of the Presidency. The turn-out of the Khárághoda works increased, but the decrease in the manufacture at Bulsár and other places in the Presidency was very marked and amounted to nearly 14¾ lákhs of maunds; it was attributable to the early burst of the monsoon and to the generally unfavourable character of the season. Another cause of the diminution in the total amount of salt manufactured during the year was the fact that for the first time no salt was received from Portuguese territory, owing to the termination of the treaty. The stock in hand at the beginning of the year amounted to 39 lákhs of maunds, or two lákhs of maunds less than in 1891-92; so that the total quantity available for consumption was 130⅔ lákhs of maunds. The total removals amounted to 87 1/10 lákhs of maunds as compared with 94⅕ lákhs in the preceding year, and loss by wastage to 11⅙ lákhs of maunds; the balance therefore at the end of the year was reduced to the very low figure of 32¼ lákhs of maunds. Out of the total decrease of over 7 lákhs of maunds, 3¼ lákhs represent the out-turn in the previous year of the works in Portuguese territory issues from which, as has been stated above, ceased altogether owing to the termination of the Anglo-Portuguese treaty; consequently the decrease in issues from the works in the Presidency proper was 3⅕ lákhs only. With the exception of a small decline in the issues from the Bulsár works which was entirely due to the stock of salt having run so low in February that sales had to be limited until the new crop was ready in March, the whole of this decrease occurred in removals from the salt-works in the neighbourhood of Bombay. Issues from the Khárághoda works, on the other hand, increased by 15,513 maunds, the total removals for the year being the largest on record with the exception of those of 1885-86 and 1886-87 when they were abnormally large owing to the failure of the Sámbhár crop. Issues of Barágra salt to the North-West Provinces and Central India were larger than in the previous year, while those to the Presidency proper and Central Provinces showed a falling off, the heavy exports of the previous year having apparently glutted the markets there. Issues of salt from works in the neighbourhood of Bombay to Mysore, British Malabár and His Highness the Nizám's territory showed an increase, while those to Central Provinces, Foreign Malabár, Calcutta and the Presidency proper decreased. The improvement in exports to British Malabár and Mysore was due to British salt being able to compete with Goa salt on more favourable terms owing to the termination of the Anglo-Portuguese treaty, while the diminution in issues to the Central Provinces and Presidency was due in great measure to the same cause as that in issues of Barágra salt to these places. The decline in exports to Calcutta, which generally consist of refuse salt, was probably due to small quantity of that commodity available, the heavy removals of the previous year having exhausted the stocks on hand, while the failure of the Native State contractors to keep their engagements was responsible for the decline in the removals to Foreign Malabár. The issues of salt duty-free fell from 1,56,444 maunds to 16,688 maunds, the decrease being almost entirely due to the termination of the Anglo-Portuguese treaty, which transferred the salt-works in Portuguese territory to the control of that Government and consequently put an end to the duty-free grants of salt for

domestic consumption at Goa. The total quantity of salt that passed into consumption in the Presidency was 32,28,489 maunds, which, taking the population according to the census of 1891, gives a consumption per head of 11·11 lbs. against 11·82 lbs. in 1891-92. The salt removed for consumption in Gujarát amounted to 8,45,267 maunds, a quantity which gives a consumption per head of 8·05 lbs. against 8·13 lbs. in the previous year. The corresponding figures for the rest of the Presidency was 23,83,222 maunds, and the average consumption per head 12·84 lbs. Taking the Presidency as a whole, the wholesale price of salt was somewhat higher during the year under report than in the previous year. The rise was most marked in the month of December when the check placed on manufacturing operations by the heavy rains of the monsoon and the losses by floods reduced the stocks in hand to a very low level and consequently forced up prices. The highest rate during the year was Rs. 4-2-8 in Bombay during December, which was nearly 4 annas in excess of that for the previous year; the rates in Thána, Kolába, Surat, Kánara and Ratnágiri during that month were also unusually high. The gross collections of salt revenue in 1892-93 amounted to Rs. 218 lákhs against Rs. 226⅓ lákhs or a decrease of Rs. 8⅓ lákhs. In 1891-92, however, the receipts were unusually large and, as compared with the average receipts for the four years ending 1891-92, receipts for the year under review showed an increase of nearly Rs. 13⅔ lákhs. The expenditure for the year was practically the same as that of the previous year, the saving, resulting from the abolition of the Portuguese Indian establishment owing to the termination of the treaty, being utilized to provide for the new establishments entertained on the Goa and Daman frontiers. The number of smuggling cases detected rose from 558 to 611, over one-third of them coming from the Goa and Daman frontiers; notwithstanding this fact and a still larger proportionate increase in the number of persons arrested, the percentage of convictions showed a slight improvement.

Sind.

The sources of supply in Sind were as in former years the Maurypur-Moach salt-works and the Dilyár and Sáran salt deposits. The total production during the year at all three works was 2,72,177 maunds as compared with 3,28,850 maunds in the previous year, or a decrease of 56,673 maunds, which was almost entirely due to a diminished outturn at the Maurypur works. The total sales for the year showed a small increase but were below the quantity manufactured; the stock in hand at the end of the year was consequently in excess of that of the previous year. The total consumption of salt in the province, including that imported from Europe and the Punjáb, amounted to 2,58,634 maunds, which gives the average rate of consumption per head as 7·41 lbs. as compared with 7·27 lbs. in the preceding year. There was no variation in the wholesale price of salt during the year. The gross receipts from excise duty and other charges amounted to Rs. 6,72,447, while the expenditure of the department was Rs. 1,22,609, the net profits being thus Rs. 5,49,838. The number of offences against the salt laws detected rose from 185 in 1891-92 to 205 during the year under review.

Excise: Presidency proper.

The various systems of managing country spirit farms remained unchanged during the year. They comprised: (1) the out-still and lump-farming system, which was in force only in the Dohad and Jhálod tálukas of the Panch Maháls: (2) the still-head duty system, with public and private distilleries and license-fees for the right of sale, which was in force only in the town and island of Bombay; (3) the still-head duty system with public and private distilleries and a minimum guarantee, which was in force in the Thána, Kolába and Ratnágiri districts and in the below-ghát tálukas of Kánara, the right of sale (which is distinct from that of manufacture) being given in the first two of these districts

to selected farmers, who agreed to pay the amounts fixed by the Commissioner, and in the last two being sold by auction; (4) the still-head duty system with a central distillery and minimum guarantee, in force in the rest of the Presidency, the right of sale under which was given in each area to a selected farmer who agreed to pay a certain sum for the farm. This sum was previous to 1889 fixed in all districts by open competition, but in that year the method of inviting tenders was abandoned in all districts, except Khándesh, and the farm assigned to a selected farmer, in return for a sum fixed, after due consideration, by the Commissioner of Abkári. The introduction of the new method into the Khándesh district had been delayed, owing to the fact that the old contract had not expired; but, on its termination during the year under review, the farm was assigned in the same way, as in the other districts, in which the system above mentioned prevails. By the end of the year under review, therefore, the system of assigning the right to sell and manufacture liquor by competition to the highest bidder had totally disappeared from every district, except the Dohad and Jhálod tálukas of the Panch Maháls, the coast tálukas of Kánara, the Ratnágiri district, and the town and island of Bombay. The total excise realizations in the Presidency proper rose from Rs. $83\frac{1}{16}$ lákhs to Rs. $85\frac{1}{16}$ lákhs during the year, of which amount Rs. $80\frac{9}{16}$ lákhs represented revenue from country liquor, against Rs. $79\frac{1}{16}$ lákhs in the previous year. The revenue from country spirit alone increased by Rs. 1,30,983, which was the net result of an increase in the still-head duty caused by a general increase of sales, consequent on a favourable season, counterbalanced by a falling off in the receipts from farmers on account of deficiencies in minimum guaranteed revenue, which were smaller owing to the revision of the guaranteed amounts under the new contracts for the country spirit farms of the districts of Khándesh, Sholápur, Bijápur, Dhárwár, Ahmedábád, Kaira, Broach and the Panch Maháls. There was a considerable increase in the amount of country liquor consumed, which rose from 2,457,541 gallons in 1891-92 to 2,576,975 gallons during the year under review. The increase in the districts of Ahmedábád, Broach and Surat was attributable to the fact that the competition between British and Gáikwári shop-keepers in the frontier villages of Gujarát was not so keen as in former years, while that in the Panch Maháls was due to the importation of labourers in connexion with the construction operations on the Godhra-Rutlám Railway. In the districts of Násik, Khándesh, Belgaum and Dhárwár, the comparatively good season gave the cultivator more to spend on luxuries, such as liquor, and sales consequently rose. The fluctuations in the sales in the Thána and Kolába districts were naturally large, owing to the transfer of the Karjat táluka from the former to the latter district, but making allowances for this, it appears that licit sales in both districts increased, especially in Kolába, a result which, besides the favourable season, may possibly be attributable to the operation of the Mowra Flowers Act, which came into force in the latter half of the year and which, it may be assumed, was effectual in reducing the amount of illicit liquor made and consumed. The number of shops licensed for the sale of country spirit was 2,586 as compared with 2,633 in the previous year. Arrangements for realizing the revenue from the sale of toddy were generally the same as in the previous year, the right of sale in the three districts of Bijápur, Násik and Sholápur and in the above-ghát tálukas of the Kánara district being farmed; elsewhere, with the exception of the Panch Maháls district, the separate licensing system, under which the shop licenses, tree-foot booth licenses and domestic consumption licenses are the three forms of licenses ordinarily allowed, was generally in force. The only change made during the year was that the monopoly farms for the sale of raw toddy in the Ahmedábád district, in the Native State of Cambay, and in that portion of the Mándvi

táluka of Surat, which is situated to the north of the Tápti river, were abolished and the arrangements for the realization of the revenue assimilated to those in force in the Broach and Surat districts The rates of tree tax were raised in the Ahmedábád, Broach, Ratnágiri and Kánara districts, and the tax on date trees tapped for domestic consumption by members of the aboriginal tribes in three tálukas of the Surat district was also slightly increased. As a result of this enhancement of the rates, the revenue from toddy increased by Rs. 51,719. The quantity of toddy spirit manufactured during the year in Bombay and in the Kánara and Ratnágiri districts was in each case more than in the preceding year, notwithstanding that in the Kánara district there was a large decrease in the amount of toddy distilled. The average incidence of ábkári taxation per head of the population, taken according to the census of 1891, was for the year under review 8 annas and 4 pies against 8 annas and 1 pie in the preceding year. The total expenditure of the Excise Department during the year under review was Rs. 3,08,663 as against Rs. 3,22,793 in 1891-92, and the amount of annual compensation paid to the Municipality of Bombay for the loss of revenue formerly accruing from the sale of shop licenses, to the Chiefs in the Konkan, Deccan and Southern Marátha Country, in the Rewa Kántha, Mahi Kántha and Khándesh Agencies and to the Naváb of Cambay was Rs. 3,76,457.

Sind. The general arrangements existing at the close of the year 1891-92 for the supply and sale of country liquor continued during the year 1892-93, the only modification introduced being that permission was accorded to dealers in liquor to soak mace and nutmeg in hot and double-distilled liquor. The gross revenue rose from Rs. $7\frac{1}{5}$ lákhs to Rs. $7\frac{4}{5}$ lákhs, the increase being mainly due to larger receipts under still-head duty, which represented 73 per cent. of the total revenue. While the number of licenses for the sale of country liquor fell from 297 to 286, that for the sale of foreign liquor rose from 96 to 111; the total amount of fees realized on both together was Rs. 41,303 against Rs. 38,489 in the previous year, the increase being mainly due to the fact that the fee for retail licenses in the towns of Shikárpur and Lárkhána was increased to Rs. 250 during the year. The incidence of taxation per head of the population (according to the census of 1891) was 4 annas 5 pies during 1892-93 against 4 annas 2 pies in 1891-92. The expenditure of the Abkári Department in the province increased from Rs. 13,546 to Rs. 14,392 during the year under review.

Stamps. The total receipts from the Stamp Department amounted to Rs. $57\frac{1}{3}$ lákhs against Rs. $54\frac{1}{2}$ lákhs in the previous year, an increase of Rs. $2\frac{5}{6}$ lákhs or 5·1 per cent. About two-thirds of the improvement occurred in revenue from Court-fee stamps, the remainder being in receipts under the Indian Stamp Act. The large increase in the revenue under the Court-fees Act was due to stamps of the value of over Rs. $1\frac{1}{4}$ lákhs having been sold for the probate of the will of a Bombay millionaire. The expenditure was slightly above that of 1891-92, owing to increase in the discount paid on the larger sales of the year.

Income Tax. The final demand on account of Income Tax during the year rose from Rs. 37 lákhs to Rs. $38\frac{2}{3}$ lákhs, while actual collections amounted to over Rs. $37\frac{3}{4}$ lákhs as compared with Rs. $35\frac{9}{10}$ lákhs in the previous year. The improvement extended to all parts of the Presidency excepting Aden where the decrease was very slight. The increase in the Mofussil collections was generally attributed to the greater prosperity of the trading classes consequent on an exceptionally good season and also to greater accuracy on the part of the assessing officers; while larger profits on the part of the railways and cotton mills, due in one case to the large traffic in wheat and seeds and in the other to a brisk demand for yarn in China, accounted for the improvement in the City of Bombay.

Local Funds.

The aggregate receipts of the Incorporated Local Funds in the year 1892-93 were less by about Rs. $1\frac{9}{10}$ lákhs than in the previous year, the total being Rs. $55\frac{3}{5}$ lákhs as compared with Rs. $57\frac{1}{5}$ lákhs in 1891-92. The decrease was most marked in receipts under the Local Funds Act I of 1884, and was attributable, partly to the fact that the totals for the previous year included unusually large grants for public works and also arrears of Provincial rates, payment of which had been postponed from 1890-91 owing to census operations and partly to the non-utilization by any district of the additional grant of one lákh of rupees for village sanitation. Of the remaining funds, receipts from two, the Village Officers' Cess Fund and Government Central Book Depôt Fund in Sind, showed a falling off, due in one case to heavy remissions granted in the Upper Sind Frontier district owing to the almost complete destruction of the crops by locusts, and in the other to smaller sales of books and publications; while the revenue from the third, the Steam Boiler Inspection Fund, improved owing to an increase in the number of boilers inspected both in the Presidency town and in the Mofussil. Expenditure rose from Rs. $55\frac{1}{4}$ lákhs to Rs. $56\frac{1}{2}$ lákhs, the increase being mainly due to larger expenditure on public works, and also in some degree to enhanced grants to municipal schools for building and other purposes and to establishment and contingent charges consequent on a further extension in primary education. Receipts from the six excluded local funds showed a decrease of Rs. $4\frac{3}{4}$ lákhs, which was counterbalanced by an almost equal decrease in the expenditure, the figures for both revenue and expenditure in the previous year having been unusually high owing to transfers in account.

Vital Statistics.

The total number of births registered during the year 1892 was 650,667, as compared with 682,677 in 1891, the ratio per 1,000 of the population being thus 34·57 as against 36·27 in 1891. The number recorded was lower than in 1891 in every district of the Presidency, except in those of Násik, Thána, Kolába, Ratnágiri, and Kánara. The total number of deaths recorded rose from 513,132 in 1891 to 611,742 in 1892, or an increase of 98,610. The ratios per mille of deaths among males and females were 32·56 and 32·45 against 27·46 and 27·07, respectively, in 1891. The death-rate for the whole Presidency was 32·50 per mille and ranged from 47·51 in Ahmedábád to 20·93 in Ratnágiri. The rate in Ahmedábád was unusually high and was over 6 per mille in excess of that of any other district in the Presidency. In the Collectorates of Ahmedábád, Karáchi, Shikárpur, Upper Sind Frontier, Thar and Párkar, Thána, and the City of Bombay, the recorded death-rate among females was higher than that among males, while in Surat, Bijápur and the Panch Maháls, the rates for the two sexes were nearly equal. In the remaining districts of the Presidency the death-rates among males exceeded those among females. The mortality among infants and children below 5 years of age in 1892 was considerably less than in 1891, the percentage of the total number of deaths that occurred among them being 40·87 against 43·79 in the previous year; while that among children above 5 and below 15 years of age increased, the percentage being 8·52 against 7·39 in the preceding year. Taking the population by castes, the death-rate among Muhammadans rose from 21·82 in 1891 to 33·41 in 1892, and that among Hindus from 28·94 to 32·75. Mortality among Christians and persons of other castes also increased, but not to the same extent, the rates per mille being 22·21 and 13·82, against 19·93 and 10·53, respectively, in 1891. The death-rates per thousand of the population classified according to causes show an increase under every head, except injuries and dysentery and diarrhœa, the rise being most marked under fevers and cholera. The months, when mortality was highest, were January, when the influenza epidemic which had begun in November 1891

had not yet disappeared, July, when the cholera epidemic was at its height, and November, when owing to the unusually heavy and late rains fever was very prevalent. Cholera was present in every month of the year and in 23 out of 24 Collectorates. It was at its height in the months of May, June, and July, and was particularly virulent in the Karáchi, Dhárwár, Hyderábád, Belgaum, and Shikárpur Collectorates, the death-rate in the Karáchi Collectorate attaining the high rate of 9·98 per 1,000 of the population. The number of deaths from small-pox was 2,770, a total which was almost double that of the preceding year, but was nevertheless considerably below the average for the five and ten years immediately preceding. Deaths from fever were nearly 7,000 more than in the preceding year. The mortality from this cause in Gujarát and Sind was especially great, the ratios per mille for these two districts being 34·89 and 27·63 against 27·62 and 17·07 in the previous year, and 24·39 and 15·78 the average for the preceding ten years. Deaths from dysentery and diarrhœa, and injuries showed a satisfactory decrease, the totals for the year being 35,406 and 5,432 against 37,728 and 5,887 in the preceding year.

Medical Relief.

The number of civil medical institutions in the city and island of Bombay, which were open during the year, was one more than in the previous year. The number of patients treated also showed an increase. Cases of small-pox were more numerous than in the previous year; while cholera was decidedly less prevalent. The total income of the medical institutions in the Presidency town, including a grant of Rs. 54,764 from the Bombay Municipality and another of Rs. 10,587 from the Bombay Port Trust, was Rs. 4,62,409, and the expenditure Rs. 4,57,196. The net cost to Government without deduction of recoveries from fees was Rs. 4,19,777 or 87·5 per cent. of the total cost, an increase of 0·8 per cent. over that of the preceding year.

During the year under report four new dispensaries were added to the number of medical institutions in the Mofussil, bringing the total number of hospitals and dispensaries open at the close of the year to 258. The total number of patients treated showed a large increase, which was especially noticeable in the Deccan, Gujarát and Sind. It was attributable to the extreme unhealthiness of the year which was caused by a heavy rainfall coming after several years of drought. As usual, malarial fevers gave the largest number of admissions, over twenty per cent. of the patients treated being sufferers from some form or other of this ailment; next to fever, worms, eye and skin diseases were the most common. The number of both major and minor operations showed an increase. The total revenue from all sources of Mofussil medical institutions was Rs. 7,28,462 and the expenditure Rs. 6,09,637. Comparison with former years is impossible as the salaries of Civil Surgeons have been excluded from the amount contributed by Government during the year. The net cost to Government, exclusive of these salaries, was Rs. 2,67,570, a sum which represents 45·8 per cent. of the total cost. The invested capital to the credit of the various medical institutions at the end of the year amounted to Rs. 4,65,600.

Lunatic Asylums.

The total population of the six lunatic asylums of the Presidency rose from 961 to 999, of whom 130 were criminal lunatics. The number of patients admitted during the year was 290, of whom 18 had previously been under treatment. One hundred and seventy-four were discharged, ninety-one of them having been cured. The cause of insanity was ascertained in the case of rather more than half the total number of patients, physical causes accounting for 90 per cent. and moral causes for 10 per cent. of this number. Among the latter, grief and among the former, abuse of intoxicants were as usual the most common. Mortality among the patients increased considerably, the number of deaths being 112 against 70 in the previous year. The net cost to Government of the

asylums rose from Rs. 97,979 to Rs. 1,01,328 owing to the larger number of patients; the cost per head, however, showed a slight decline.

Sanitation.

The actual cost of military works in connection with sanitation was Rs. 1,36,877, the most important in progress being the Sátára Camp water-supply and the construction of a road to remove nightsoil and refuse from the Steamer Point position at Aden. The expenditure of the Mofussil municipalities on conservancy was Rs. 8⅕ lákhs. Of this amount a sum of nearly Rs. 2 lákhs was expended in Sind, where the principal works in progress were the drainage works at Hyderábád and Karáchi, and improvements to the water-supply of Keti Bandar. In the Northern Division the Ahmedábád water works proved a great success, and schemes for the supply of water to Surat, Thána and Kalyán were under consideration. Experimental borings were made in the vicinity of Viramgám and Dákor with a view to obtaining good potable water for the use of the inhabitants; but the results were not satisfactory. The drainage works completed for part of the Ahmedábád city were working satisfactorily; and a scheme for the surface drainage of Nadiád received the sanction of Government during the year. The water works at Hubli and Dhulia were nearing completion and the plans and estimates for those at Dhárwár were finally approved. Besides these, a large number of works for the improvement of the water-supply of the smaller municipal towns were completed or in progress. The expenditure of the Health department of the City of Bombay was Rs. 11,75,517; the more important measures of sanitation carried out by the Municipal Corporation of that City are noticed elsewhere.

Vaccination.

The number of operations performed by the Vaccination Department during the year showed a decline of 11,307, the total being 986,758 against 998,065 in the previous year. The decrease was most marked in primary vaccinations. The percentages of successes in both primary and revaccinations showed a decline from 94·99 and 61·95 in the previous year to 94·56 and 58·74 respectively during the year under report. The percentage of infants protected by vaccination rose from 76·58 to 80·12; but it is to be feared that the proportion is not in reality as high as this, as in five out of the six districts in which the percentage was highest, the system of birth-registration is notoriously defective. The substitution of animal for human lymph in vaccination continued to increase in the larger towns in the Presidency. Animal lymph was used in the City of Bombay Igatpuri, Kurla, Kalyán, Bándra, Poona, Sholápur, Ahmednagar, Belgaum, Dhárwár, Hubli and Gadag. Seven small municipalities in the Poona District, also voted the sums necessary to provide a calf during the whole or part of the year. Animal lymph was also used in 219 villages of the Poona District and for the first time with most successful results in 81 villages of the Ahmednagar District. The recorded results of the work of the supervising staff show a falling off compared with those of the previous year, the percentage of persons operated upon, who were inspected, falling from 38·63 to 34·19. The total expenditure of the department rose from Rs. 3,09,192 to Rs. 3,20,603, a net increase of Rs. 11,411, which was mainly due to increased expenditure in Native States owing to the entertainment of additional vaccinators during the year. The average cost of each successful operation also rose from 5 annas and 5 pies in the previous year to 5 annas and 8 pies during the year under report.

Veterinary dispensaries.

Considerable progress was made during the year in veterinary matters. The number of veterinary dispensaries in actual working order rose from four to six (at Ahmedábád, Nadiád, Dhulia, Násik, Karáchi and Belgaum), and the number of animals treated at them from 2,628 to 4,466, of which number 70·3 per cent. were cured, against 54 per cent. in the previous year; 10·2 per cent. relieved; in 11·3 per cent. of the cases the results were unknown, and in the

remainder the animals either died or were incurable. New dispensaries were also opened towards the close of the year, at Shikárpur and Hyderábád, and sanction was given for opening one at Dhárwár; while applications from Sholápur and Surat were under consideration. Some difficulty was experienced in securing the services of properly qualified Veterinary Assistants, and it was owing to this cause that there was only one Itinerating Veterinary Assistant at work during the year in Belgaum, it being found impossible to find men to take up this work in the Násik and Kaira districts. The various Veterinary Assistants rendered useful service in treating outbreaks of contagious disease among cultivators' cattle in villages near their dispensaries.

Education: General.

During the year 1892-93 there were in the Presidency 12,607 public and private educational institutions with 646,382 pupils as compared with 12,272 institutions with 634,438 pupils in the previous year. Omitting the private institutions, that is to say, the institutions which are not under Government inspection (the total number of which was 2,813 and the attendance 71,013), there were 507,028 boys and 68,341 girls under instruction in public institutions, as compared with 499,174 and 67,432 respectively, in the previous year; while for boys and girls together the average monthly number on the rolls rose from 546,925 to 558,389 and the average daily attendance from 413,427 to 416,632. Out of the 293 new public institutions which were opened during the year 276 were primary schools, 14 secondary and 2 special schools, and one a professional college, while the number of arts colleges and training schools remained stationary. There was an improvement in the number of persons attending all classes of institutions. Considering schools and colleges classified according to sources of maintenance, it appears that, while there was a falling off in the number maintained by Government and Municipal Boards, there was an increase in those maintained by Local Boards. Attendance at schools maintained by Municipal Boards fell off slightly, but improved at every other class of institution, especially at grant-in-aid schools the number of which has almost doubled in the last six years. All castes contributed to the increase in the total number of pupils, the number of boys from hill-tribes, which fell off in 1891-92, showing a substantial improvement during the year under review, while the increase in the number of Muhammadans, though not so large as the previous year, was still satisfactory. The total gross expenditure of the year from all sources rose from Rs. 62$\frac{4}{5}$ lákhs to Rs. 66$\frac{1}{3}$ lákhs, an increase of Rs. 3$\frac{1}{2}$ lákhs. The percentage of the total cost borne by Government was 29·7, by Local Funds 14·3 and by Municipal rates 6·2, while fees, Native State revenues and income from other sources made up the remainder. In the British districts of the Presidency, it is interesting to note, Government and Local Funds together contributed considerably over half the total cost of education, the percentage contributed by each being 35·5 and 17·2 respectively. Compared with the previous year there was an increase in the receipts from fees and other sources of nearly Rs. 2$\frac{1}{10}$ lákhs, while expenditure from Provincial Funds, Local cess and Municipal rates was higher by Rs. 1,35,789. The net expenditure from Provincial Funds was Rs. 19$\frac{2}{3}$ lákhs or almost the same as the preceding year. The variations in the apportionment of this amount consisted in a large reduction in the grant for buildings and apparatus, and smaller decreases in the grants to the Bombay University and Professional Colleges, which were counterbalanced by increased expenditure under every other head, those in which the excess over the amount granted in the previous year was most marked being Primary and Secondary schools, in which case it was attributable to the development of aided schools and to additional grants to Local Board and indigenous schools in Sind, and other special

schools, the cost of which was larger owing to heavier charges in connexion with the Sir Jamsetji Jijibhai School of Art and the development of the Agricultural and Forest classes attached to the Poona College of Science. Ordinary grants to colleges and schools rose from Rs. 3,32,512 to Rs. 3,52,073 and special grants from Rs. 4,027 to Rs. 6,068. Payments to aided institutions fell from Rs. 4,34,026 to Rs. 3,73,107, the decrease being entirely due to a reduction in the grant for buildings from Rs. 96,487 to Rs. 20,364. Building grants to Government and Board schools on the other hand rose from Rs. 93,256 in 1891-92 to Rs. 96,353 during the year under review.

Higher education.

The number of students on the rolls of the Arts Colleges rose from 1,339 to 1,582 at the close of the year and the fee-receipts from Rs. 92,013 to Rs. 1,01,784. The increase both in numbers and fee-receipts was most marked in the Elphinstone and Wilson Colleges, though the Deccan and Fergusson Colleges also showed a considerable improvement in these respects. Of the mofussil institutions the Gujarát and Rájárám Colleges had fewer names on their rolls at the end of the year than at the beginning; while the numbers at the Sind College showed a slight increase. The average monthly number and attendance at the Rájárám College, however, was considerably higher, while at the Sind College it was lower than in the preceding year. The number of candidates who succeeded in passing the University examinations was, with the exception of the Previous and B.Sc. examinations, considerably below that of the preceding year, notwithstanding the fact that the percentage of successes obtained by the large number of pupils sent up by the Elphinstone and Deccan Colleges continued to be high. There was an improvement both in the attendance and in the fee-receipts at the Grant Medical College, but at the Poona College of Science, notwithstanding an increase in the number of pupils, there was a falling off in the fees received. At the Bombay Law School there was a further fall in the number of students and in the amount of fees paid, the increased difficulty of the examination consequent on the new University regulations apparently deterring fresh pupils from entering.

The total number of high schools rose from 83 to 84, those for boys (73) increasing by one owing to the opening of a new high school in Morvi State, while those for girls remained the same as in the previous year. The total number of girls and boys receiving instruction showed a slight increase, which however was confined to the Central Division, the numbers for the Northern and Southern Divisions and Sind all exhibiting a decline. The number of candidates for the University Matriculation examination was smaller than in 1891-92, but the larger number of passes secured showed that they had been better prepared. The superiority of the instruction received at the schools over that imparted by private tutors was even more marked than usual, over fifty per cent. of the candidates sent up from schools passing, while of those who went up without school certificates ninety per cent. failed. The number of candidates at the University School Final examination was 1,466 as compared with 1,267 in the previous year. Of this number 399 were successful. The condition of the high schools generally was very satisfactory, the efforts made towards the adoption of improved methods of teaching and greater order and neatness being very marked. It is gratifying to note moreover that schools in Native States were not one whit inferior to Government high schools either in efficiency or in the completeness of their accessories. The total number of middle schools rose from 327 to 340, those for boys increased from 280 to 296, while there was also an improvement in the attendance which extended to all parts of the Presidency except Sind and Aden. Girls' schools, on the other hand, showed a decline of three, which however was more apparent than real and was due to the transfer of two

schools from the girls' school lists to the boys' school lists owing to there being more boys than girls in them and to the exclusion of the railway school at Lanowli, returns for which were not received before the close of the year. Generally speaking, these schools attained a fair average of efficiency during the year.

Primary education.

The total number of primary schools in the Presidency rose from 8,354 to 8,615 and the attendance at them from 477,031 to 484,124. The increase in the number of schools was mainly due to the opening of new schools by Native State in the Northern Division and of additional aided schools in Sind. Though there was a decrease in the number of Local Board schools in Sind and the Southern Division, there was a steady increase in the number of pupils attending them in all the divisions of the Presidency. The improvement was most marked in the Northern Division, but at the same time, it must be noted, was hardly proportionate to the increase in the number of schools, possibly owing to the extreme unhealthiness of the year and the large number of marriages celebrated in it. The schools under the management of the Bombay Municipality were very efficient; but in other parts of the Presidency school management by Municipal Boards was by no means a uniform success. In the larger towns, especially Karáchi, Tatta, Sukkur and other places in Sind, the Municipal schools were all that could be desired; but in the smaller towns, want of system and laxness in supervision on the part of Municipal Commissioners naturally had a prejudicial effect on the efficiency of the schools. Primary education in Native States made great progress, 74 new schools being opened during the year. The number of girls' schools increased by 15, of which 9 were in the Northern Division and attendance improved everywhere except in the Southern Division and Sind. In the Northern Division, however, the attendance was hardly as good as it might have been, owing, it is imagined, to the operation of the same causes as in the case of the boys' schools, an unhealthy season and a large number of marriages, which combined to reduce the attendance.

Special education.

The number of pupils at the Rájkumár College, Rájkot, showed a slight decline; but the results of the examination, conducted by the Director of Public Instruction, were satisfactory. The Garásia school at Wadhwán was flourishing during the year; that at Sádra was hardly so successful owing to troubles with the teaching staff. The number of Muhammadan boys and girls in the schools continued to improve; and there was also an increase in the number of schools for aboriginal and hill tribes and in the attendance at them, which was specially noticeable in the Rájpipla State and in the schools under the Mahi Kántha Agency. The number of institutions for special instruction rose from 47 to 49, owing to the opening of a new drawing class and industrial institution. The results of the working of the various training schools throughout the Presidency were without an exception satisfactory, and there was a large increase in the number of trained head masters. There was a falling off in the number of students at the Sir Jamsetji Jijibhai School of Art and consequently in the fee-receipts; but the number of pupils in schools for general education, who learnt drawing, continued to increase, although there was a decline in the number of certificates granted. Notwithstanding a slight decline in the number of pupils attending the various medical schools in the Presidency, the number of those who passed the third year examination increased. The number of pupils at the Bombay Veterinary College was the same as in the previous year; they were, however, on the whole, of a class more suited to veterinary work. Five passed the final or diploma examination, all of whom obtained employment on salaries varying from Rs. 75 to Rs. 125 per mensem. The working of the Hyderábád Agricultural Class continued to be satisfactory and three students of the Engineering

Class attached to the Sind Arts College passed the final examination during the year. The industrial schools achieved excellent results during the year, especially the David Sassoon Reformatory and Ratnágiri School of Industry; but the number of pupils attending the Victoria Jubilee Technical Institute showed a serious falling off, notwithstanding the large number of scholarships awarded.

Literature.

There was a further decline in the number of literary publications registered during the year 1892, the total being 1,368 against 1,408 in 1891. The general character of the productions was much the same as in previous years, the predominance of works connected in some way or other with education and the absence of artistic and scientific publications being, as usual, very marked. Original works of fiction were very few in number, the bulk of the productions of this class being translations from English or French works, or in some few cases from Persian and Sanskrit; they were, however, of a generally inoffensive character. Poetical and dramatic compositions were decidedly below the level of former years both in point of numbers and literary merit; but biographical works, especially those in the Marátha language, showed a marked improvement in these respects. The subject of social reform was almost entirely neglected, one work only in this connection having been produced during the year; history also received but scant attention. The publication of one work in each of the Burmese, Konkanin (a mixture of Portuguese and Marátha), Afghán and Nepaulese languages in addition to works in 15 other languages and dialects is interesting as showing the extremely polyglot character of the literature of the Bombay Presidency. Taking the literary productions of the year 1892 as a whole, it cannot but be admitted that they were below those of the two previous years both in point of quality and quantity; indeed it would seem that apart from journalistic productions, the amount of original vernacular literature annually published in the Presidency shows a decided tendency to decline, a fact which in view of the enormous extension of vernacular education it is impossible to explain.

The Native Press.

The number of newspapers and periodicals published in the Presidency rose from 160 to 176 during the year under review, twenty-five new periodicals being started while nine ceased to exist; but there was no appreciable improvement in their circulation. The comments on Government measures by the papers published in the Presidency town, though inclined to be free, were on the whole inoffensive; but the Mofussil papers very often exceeded the limits of fair criticism, and there was what may be described as an epidemic of libellous and venomous writing among a section of the Marátha press, in connection with the accidental shooting of a native woman by a British officer, which ended in the conviction for defamation of the editor of one native organ, the *Pratod*. The untimely death of Prince Albert Victor, Duke of Clarence, called forth an universal expression of sympathy and regret on the part of the whole press. Much enthusiasm prevailed over the proceedings of the Indian National Congress, the programme formulated by that body meeting with general approbation; but the publication of Mr. Hume's circular letter to its members called forth a difference of opinion, the better class of journals declaring against the views expressed in it. In matters of taxation the views of the press differed little from those of previous years, the collection of the income tax and the introduction of revision settlements raising the assessment on the land in various districts, calling forth a good deal of adverse criticism. Among the legislative measures of the year, the Indian Councils Bill met with qualified approval, the general opinion being that the value of concessions granted by the bill was minimized by the small number of the popular representatives on

the new Council; at the same time the fact that the bill had passed was considered to be a matter for general congratulation. The bill to amend the Bombay Abkári Act with a view to regulating the traffic and possession of mowra flowers in the Thána and Kolába districts met with unanimous opposition, but has nevertheless been passed by the Provincial Legislative Council, and approved by the Governor General in Council and the Secretary of State in Council. Among educational questions the alleged withdrawal of the Provincial grant to the Fergusson College, Poona, and the reduction of the annual grant to the Bombay University were made the text for a tirade against the educational policy of the Government, who were accused of starving advanced education. Questions connected with social reform continued to receive a good deal of attention, the resolution passed by the social conference at Nágpur condemning polygamy and advocating re-marriage of child widows meeting with general approval; but opinion was divided as to the action of certain leading Bráhmans in undergoing the penance laid down by the laws of their caste, after drinking tea at a mission-house in Poona.

Literary Societies.

Considerable additions both of books and coins were made during the year to the library and museum of the Bombay Branch of the Royal Asiatic Society; from a financial point of view, also, the society was flourishing. The number of members of the Gujaráti Dnyan Prasárak Mandli showed a slight decrease, but the finances of the society were in a satisfactory condition. Seven lectures were delivered during the year under the auspices of the society, the expenses of which were defrayed out of the annual Government grant. Three lectures were also delivered in the Sassoon Mechanics' Institute; but there was a marked decline both in the number of members and in the receipts of this society.

Museums.

There was a large increase in the number of visitors during the year to the Victoria and Albert Museum at Bombay. Several valuable additions were made to the collections in the Natural History and Anthropological Divisions, and the library was enriched by the addition of several valuable works of reference. A thorough examination was made of all the collections in the museum and preservatives used where necessary. The collections and books belonging to the Karáchi Municipal Library and Museum were removed during the year to the new building called the Victoria Jubilee Museum which has been constructed for their reception, and a new curator was appointed to keep them in a thorough state of order and preservation. Several additions were made to the collections during the year.

Archæology

The Archæological Survey Party of Western India commenced the season by a tour in the Central Provinces, undertaken in order to collect information as to the antiquarian remains existing there, with a view to a more systematic survey in the future. Starting from Nágpur the party proceeded to Chánda and from there to Amráoti. From here a visit was paid to the Jain temples of Muktágiri, north of Ellichpur. Passing through Burhánpur and Khandwa, the party next proceeded to the sacred town of Mandháta on the Narbada, and made an exhaustive examination of the ancient temples there. Visits were then made to Hoshangábád and Pachmarhi; at the latter place a survey of the celebrated Mahádeo caves was made. At this point, the party, finding that owing to the proximity of the party under the charge of the Director General of the Archæological Survey of India and other reasons, further researches in this district would not be productive of much good, returned to Poona. It was then decided to proceed to Kánara with the object of examining the antiquarian remains there. Starting from Bhatkal in the extreme south of the Presidency the party passed through the district from south to north, the most important remains examined

being some ancient temples at Bhatkal, Gersappa and Annavatti. The last month of the season was spent in a survey of remains in the Kolhápur State. With the survey of Kánara, the Archæological Survey of the Bombay Presidency has been completed, at least as far as field operations are concerned. The work of recording and publishing its results is, however, as yet incomplete. Considerable attention was paid during the year to the preservation of interesting remains in the Bombay Presidency, and a sum of over Rs. 14,000 was expended on repairs to ancient buildings, principally at Ahmedábád, Bijápur and Chámpáner.

Ecclesiastical.

The effective strength of the establishment of chaplains of the Church of England was well maintained during the year, no important station having ever been vacant. A new church was opened at Igatpuri during the year. There was no change in the establishment of the Church of Scotland.

Stationery.

The value of stock received from all sources by the Stationery Department amounted to rather more than Rs. 3½ lákhs and stock worth Rs. 3½ lákhs was issued. The value of stores of country manufacture purchased during the year was Rs. 2,68,053 as compared with Rs. 2,44,212 in the preceding year; but the resulting saving to Government was only Rs. 63,413 as compared with Rs. 99,741 in the previous year.

Government Printing Presses.

The earnings of the Government Central Press during the year showed a net increase of Rs. 21,593 over those of the previous year, a result due to an increase in the amount of work done for Government offices and to a larger outturn from the Foundry. The gross earnings and expenditure were Rs. 3,75,199 and Rs. 2,75,960 against Rs. 3,44,843 and Rs. 2,67,197 respectively in 1891-92, giving a net profit to Government of Rs. 99,239. There was a decrease, on the other hand, of Rs. 4,580 in the value of the work done by the Government Press at Karáchi, which was Rs. 34,015 only against Rs. 38,595 in 1891-92. The earnings of the Press exceeded its working cost by Rs. 6,281. The profits of the Photozincographic Office, Poona, amounted to Rs. 23,856 or Rs. 1,494 in excess of those of the previous year, a result mainly due to an increase in the receipts from the sale of maps supplied to Government officials and from commission on maps prepared by the Surveyor General of India. The total realisations amounted to Rs. 93,617 and the expenditure to Rs. 69,761 against Rs. 81,155 and Rs. 58,998 respectively in the previous year.

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

Area Aspect Climate Products.

Chap. I. GEOGRAPHY. INTRODUCTION.

Bombay, the Western Presidency of the Indian Empire, including the Portuguese Possessions of Goa Daman and Diu and numerous Native States, extends from 13° 53′ to 28° 45′ north latitude and from 66° 40′ to 76° 30′ east longitude with an area of about 200,000 square miles and a population of nearly 30,000,000. For administrative purposes the area is distributed over four revenue divisions, the province of Sind and the Northern Central and Southern Divisions of the main body of the Presidency. Of the whole Presidency the districts include about three-fifths (122,558 square miles; 18,857,044 people) and the states, inclusive of the Portuguese possessions and of Baroda, about two-fifths (74,403 square miles; 11,044,908 people).

The Presidency of Bombay is bounded by the Panjáb on the north, by Rájputána on the north and north-east, by the states of the Central India Agency West Berárs and a portion of the Nizám's dominions on the east, by the Madras Presidency and the state of Mysore on the south; on the west by the Arabian Sea and on the north-west by Baluchistán. Except Sind which is bounded on the west by Baluchistán, the Bombay Presidency forms an irregular belt stretching eastwards from a north and south coast line, unbroken save by the two great gulfs of Cutch and Cambay and the smaller gulf known as Bombay Harbour. During the south-west monsoon, that is from mid-May to mid-September, the only safe harbours along the whole of this coast are Karáchi Bombay Marmagao and Kárwár.

Of the main natural divisions of the Presidency, Sind the Indus Valley, except where watered and in the hilly west, is a waste of sand or of salt. The bushy sand hills of eastern Sind pass southwards into the barren salt flats that surround the hills of Cutch. South of Cutch, all but islanded by the gulfs of Cutch and Cambay, is Káthiáwár from whose lofty centre the great granite mass of Girnár is approached on all sides by ranges of low hills divided by rich and level lowlands. East of Káthiáwár lies the garden of Gujarát. And further east and south up the Tápti the hot rich valley of Khándesh swelling west to Násik and the north Sahyádris and south to the broad bare tableland of the Dekhan. From south Khándesh, except where grooved by the Godávari and the Bima, the thick bare flows of the Dekhan trap spread about 200 miles gradually thinning till they cease in the richer and better watered sandstone plains of the Southern Marátha districts of the Bombay Karnátak. Westwards the whole Dekhan and Southern Marátha plain rises to the lofty Sahyádris. Beyond the main range of the Sahyádris, between them and the sea, in the south lie the stately evergreen forests and shady pepper gardens of Kánara. And, further north, the cocoanut groves and rice lands of Goa, the barren over-tilled ironstone plateaux and thin-soiled uplands of Ratnágiri, the broken bushy spurs and rich rice valleys of Kolába, the island-studded harbour of Bombay, and the lofty ranges and deep forests of inland and the salt-marsh sugarcane and palm lands of coast Thána leading north to Daman and Balsár where once more begins the garden of Gujarát.

SIND.

Sind, in the extreme north-west of the Presidency, lying between 23° and 28° 40′ north latitude and 66° 50′ and 71° east longitude, is the lower valley and the delta of the Indus. The province comprises the five districts of Karáchi, Haidarábád, Shikárpur, Thar and Parkar, and the Upper Sind Frontier together with the native state of Khairpur (6,109 square miles; 131,937 people) in the north-east, the whole representing an area of about 53,000 square miles with a population of about 3,003,711. Sind differs widely from any other part of the Presidency in physical features and climate no less than in the language dress and customs of the people. The natural isolation of the province is remarkable. On the south it is accessible only by sea or by a toilsome march across the Ran of Cutch. On the east the Indian desert restricts intercourse with Rájputána, and on the west the Kirthar range which rises to 7,200 feet bars all access except through a few difficult passes. On the north alone the way lies open to the Panjáh. The country within these limits comprises three well-defined tracts; the Kohistán or hilly country which lies as a solid block between Karáchi and Sehwán and is thence continued north as a narrow fringe along the skirts of the Kirthar range; Sind proper, the central alluvial plain watered by the Indus; and the Registhán or Thar, a band of so-called desert on the eastern border where rolling sand hills alternate with valleys which are often fairly wooded and extensive level tracts of pastureland. The Kohistán consists of ranges of bare rugged hills of a general reddish hue which often present scenes of a peculiarly wild beauty. This tract is dependent entirely upon a rainfall, which though heavier than that of Sind proper is scanty and precarious. In good seasons the valleys are covered with grass, which, with the leaves of stunted trees and bushes, furnish abundant fodder for large herds of cattle, sheep, goats, and camels. Cultivation is scanty and is carried on either within embankments which are raised to impound the scanty rainfall or on water-courses which distribute the water of the hill streams or *nais*. Some of these *nais* are of a considerable size and are perennial; others fail during dry seasons. The most important are the Khenji nai and the Gaj nai which after breaking through the central ridge of the Kirthar range in its loftiest part emerge on the plains of Sind, where, after heavy rain, the water which is usually entirely used up by irrigation channels spreads out over the flat country and is either absorbed by the soil or goes to fill natural depressions, thus forming lakes or *dhandhs* which are often of great extent. The Bárán, draining the creeks of the main block of the Kohistán, falls into the Indus below Kotri; and the Malir

rom the underground streams of whose sandy bed the city of Karáchi draws its water-supply, flows into the Gháro creek, about twelve miles from Karáchi. The Hab, which may almost be called a river, though in the dry season it becomes a string of unconnected pools running from north to south, falls into the sea beyond Cape Monze and forms the boundary between Sind and Baluchistán. The alluvial plain traversed by the lower Indus and its branches may be described as Sind proper. A Baluch of the Kohistán or a Samo of the Thar always speaks of going to Sind, that is to the country watered by the Sindhu the ancient name of the Indus. The river enters Sind fifty miles sou h of Mithankot and flows with many windings in a southerly direction. Between Sakhar and Rohri it passes through a gap in a small range of hills, which rising from the plain around Sakhar is continued across the river from Rohri for about thirty-five miles south-east. In the midst of the pass stands the picturesque island fort of Bakhar. Thence the river's course is unimpeded until it reaches the Laki pass and the fine peak of Bagatora which forms a bastion at the north-east corner of the main block of the Kohistán. From this point to Haidarábád the river skirts the Kohistan very closely, the strip intervening on the right bank between the riv and the hi ly tract which is never more than twelve miles broad, sometimes disappearing altogether. From Kotri to Jhirak where it again meets a projecting corner of the Kohistán, and thence to Thattha, the hills on the right bank are never out of sight and sometimes approach t ie river very closely. Thus there are four points which may be regarded as more or less constant where the river is kept in its course by rock: (1) the Sakhar pass, (2) the Laki pass, (3) Kotri, and (4) Jhirak. Between these the river swings about in the plain eroding on one side and forming vast alluvial deposits on the other. By the constant deposit of silt it raises its bed above the level of the surrounding country; breaks away sometimes for many miles and forms an entirely new channel. Large tracts of country are frequent y flooded and though the spill water is kept in check by a fine system of embankments like the levees of the Mississippi, the river itself is uncontrolled and uncontrollable. If a contour map were prepared of the face of the country the old beds of the river would appear as a mass of interlaced ribbons. As the river approaches the sea, and the fall becomes less while the current is affected by the tides, its course becomes still more erratic and the numerous mouths by which it reaches the sea are constantly shifting. The head of the Delta was in ancient times at the mouth of the Fuleli, twenty miles north of Haidarábád. The Fu eli, once a mouth of the river whose course can be clearly traced to the Ran of Cutch, is now a fine canal. Later the Pinyári now a large canal which takes off on the left bank eight miles below Jarak, formed a mouth. Within the last forty years the Baghár which takes off ten mi es below Thattha was a mouth of the river in full operation up which the river steamers passed. It is now closed and the old channel is used as a canal. The true head of the Delta is now opposite Sháhbandar where the first mouth of the river the Mall takes off on the left bank. The present main channel on which stands the present port of Keti Bandar is the Ochito or Sudden which derives its name from the quickness with which it was formed; but the river has of late been changing its course and the port of Keti will probably be deserted. During the cold weather the river presents a somewhat monotonous aspect. On the one side a high bank, on the other bare flats, and there is a strange dearth of animal life. But in full flood the vast volume of water rushing along between high banks or rugged hills on one side and thick forest on the o her offers a magnificent spectacle. Along the extreme south-east border of the Registhán or eastern desert the Ran of Cutch stretches a bare grass-less waste over 9,000 square miles in area. The extreme barrenness of this tract is due to its flooding from June to September when the sea is heaped up by the constant force of the south-west wind. When in November the waters dry the salt-crusted waste shows no sign of life save herds of gazelles and wild asses. In the extreme west the end of the Pab hills forms Cape Monze. Throughout the rest of its extent the coast line is a series of low flat mud banks covered at springtides. Outside the mud swamps the shallow sea, broken by a bank which generally dry at low water stretches from Karáchi to Cutch, is hard of approach to vessels of any size. With the exception of the Kohistán, the Eastern Desert, and the level tract (*pát*) skirting the western hills where crops are grown on a scanty and precarious rainfall, the whole of Sind is dependent on the water of the river Indus, the yearly rise of which is watched with as much anxiety as the rise of the Nile in Egypt. The river, fed by the melting snows of the Himálayas, begins to rise in March; later on the supply is augmented by the summer rainfall which swells the rivers of the Panjáb, and the maximum height is rea hed about the middle of August, after which the river begins to subside. The low-lying alluvial tracts on each side of the river which are submerged in the inundation season, and large areas at a distance from the river which are swept by the spill water, retain sufficient moisture when the water subsides to permit of the growth of the finest late crops without the aid of artificial irrigation. But for the most part the cultivation depends on canals which take off from the river and distribute the fertilizing silt-laden water throughout the thi sty land. The Canal system is of great antiquity and in all essentials is the same to-day as it was a thousand years ago. Some canals have been constructed since the introduction of British rule, notably the Desert canal Unharwah and Begári which have changed the Upper Sind Frontier district from a barren waste into a flourishing tract; and the Eastern Nára supply channel which forms a constant stream into the bed of the Eastern Nára along which the water is carried a distance of 150 miles into the Thar and Párkar district. But the main efforts of the British administration have been directed towards the improvement of existing canals by increasing and regulating the supply of water and making better provision for its distribution. The success which has attended these efforts is apparent in the great expansion of the area under cultivation and in the steady growth of the revenue. Almost all the canals are what are known as inundation canals, that is they carry water during the flood season only and are dry in the cold weather. The Sakkar canal and the Eastern Nára supply channel, which have permanent heads in the rock above Sakkar and Rohri, alone have a perennial supply. The principal difficulty in maintaining the system arises from the vagaries of the river which in its constant changes may desert the mouth of a canal altogether, or throw up a bank in front of it, or injure the mouth by erosion. In order to diminish the uncertainty many of the more important canals have been provided with alternative heads. The water of the Indus is loaded with silt, part of which is deposited in the canals and necessitates annual clearances. Under native rule these clearances were effected by forced labour which was abolished soon after British rule was established. Though the silt causes much expense it is of immense benefit to the country, for it renews and fertilizes the soi and enables the cultivators to dispense with manure for all ordinary crops. The canal water is brought on to the land by branch canals and water-courses; and according to the level of the fields either flows on to the land by gravitation (*mok* irrigation), or is lifted on to it by the Persian wheel (*charkhi* irrigation). The principal Canals are the following: On the Right Bank; The Desert canal, the Unharwah, and the Begári irrigating the Upper Sind Frontier district. The Sukkar canal irrigating the northern portion of the Shikárpur district. The Ghár, which waters the garden of Sind and the Larkhana division of the Shikárpur district. The Western Nára, which taking off twenty miles south of the Ghár passes through the south of the Shikárpur district and the northern tálukas of Karáchi, and flows into the Manchar Lake. The Baghár which takes off ten miles below Thattha. On the Left Bank; The East Nára supply channel. The Thar Mithrao canals which derive their supply from the Eastern Nára, not from the river direct, and water the western tálukas of Thar and Párkar. The Nasratwah, Dadwah, Naolakhi, Mehrabwah, Sarfrazwah, and Renwah, irrigating the northern part of the Haidarábád district. The Fuleli with its numerous branches, which takes off north of

Haidarabád and supplies the whole of the Tando sub-division. The Pinyári which is the main canal of the Shahbandar division of the Karáchi district. The Soil of Sind is a plastic clay readily susceptible to change. With water it develops into a rich mould: without water it starves into desert sand. Especially in the south it is strongly impregnated with salt and largely charged with saltpetre. The Climate of Sind is extra tropical with an average temperature of 95° Fahr. during the hot months (April - September) and of 60° during the cold. During the hottest season as much as 120° of heat are registered: the lowest cold-weather record is about 28°. Sind is a country where the mango pomegranate and date yield to perfection, where the apple begins to be eatable, and the balsam tree gives copious resin; where in the heats tropical grains and fruit and in the bracing cold European grains and vegetables flourish: where the local vegetation is one-third Arabian and Egyptian and two-thirds Indian. On the verge of two monsoons Sind is unrefreshed by either. The south-west monsoon stops at Lakpat in Cutch in the south-east: the north-west passes no further than Karáchi in the extreme south-west. The rainfall averaging 8·42 inches is most irregular. The record of a series of almost rainless seasons is broken by a sudden excessive fall. Of sudden deluges the most notable is at Haidarabád in 1865, 10 inches in 24 hours (August 6th). The home Trees of Sind are the *babul* Acacia arabica, *bahan* Populus euphratica, *kandi* Prosopis spicigera, and ironwood Tocoma undulata. The *nim* Melia azadirachta, *pipal* Ficus religiosa, and *bor* Zizyphus jujuba also occur. The *babul* is the staple tree, its wood yielding timber and fuel, its bark tanning, and its leaves and pods fodder for camels and goats. The *bahan* Populus euphratica common to Upper Sind furnishes a light soft wood used in house-building and in the manufacture of the celebrated lacquer boxes of Hála and Khánot. The *kandi* Prosopis spicigera is a straight-growing tree much valued by Sindians for articles of furniture. The shores of the Indus delta abound with low mangr ve thickets which yield good fuel and fodder. Of stranger trees are the blackwood *tali* Dalbergia sissu and the tamarind Tamarindus indica. Sind enjoys two yearly Harvests, the spring sown from August to October and reaped from February to April and the autumn sown between May and July and reaped between October and December. Of the spring or *rabi* harvest the leading products are: of grains wheat and barley; of pulses Bengal gram and other vetches; of oilseeds mustard and safflower; of vegetables garlic onions radishes carrots and turnips; of dye-plants indigo; of drugs hemp and senna. Of the autumn or *kharif* harvest the leading products are: of grains millet *bájri* Penicillaria vulgaris, Indian millet *juár* Sorghum vulgare, rice *sáriyun* Oryza sativa, panic *nágli* Eleusine coracana, and *rági* Cynosurus coracanus; of pulses *urad* Phaseolus radiatus, *chaori* Dolichos sinensis, and *mung* Phaseolus mungo; of oilseeds sesame *til* Sesamum indicum; and of fibres cotton *rui* Gossypium indicum. The common fruits are the date, plantain, mango, lime, orange, pomegranate, citron, fig, grape, apple, tamarind, mulberry, and melon. To these have lately been added the apricot nectarine and peach, the last of which alone reaches perfection. The Animals of Sind are: of domestic animals the one-humped camel of which immense numbers are reared; the buffalo in great herds in the Delta swamps yields the *ghi* or clarified butter known over Western India as *sindhan*; the fat-tailed sheep and the goat abound on the borders of the Shikárpur Pat; the horse small hardy and carefully bred by the Upper Sind Baluch is prized for strength and endurance and by local chiefs for its easy inborn amble or *rehwál*; the mule is large strong and quick; and the donkey especially in Thar and Parkar is large strong and active; the Sind cow is small and the bullock is chiefly used for draught or for turning water-wheels. Of wild animals the tiger was formerly killed in the Upper Sind jungles, but is now extinct. The leopard or *chita* and the black bear (*mam*) are found on the hills. The *gurkhar* or wild ass is found in south Thar and Párkar, the hyæna, wolf, jackal, wild-hog, and hog deer are widely distributed and the hare and porcupine are common. Of birds of prey are the eagle especially the ring-tailed fishing eagle and the osprey, the vulture and several falcons, and of other birds the flamingo, pelican, stork, crane, Egyptian ibis, bustard in Thar and Párkar, rock grouse, sand grouse, quail, partridge, and green parrot. During the cold months the lakes are covered with waterfowl, the wild goose, duck, teal, curlew, and snipe. Of reptiles venomous snakes cause a large yearly mortality. Scorpions lizards and centepedes are common. Sea fish abound along the coast. The principal are the sardine (Clupea neohowii) which comes in shoals in February, the shark, sawfish, ray, skate, *rinjan*, *sird* a cod, *sir*, *caratho*, and red snapper. Of freshwater fish, which are of much more importance than the sea fish, the chief are the *pala*, *dhambro* a carp, *singhára*, *jhirkhan*, and *gandan*. The otter, turtle, porpoise, long-snouted alligator, and various water snakes abound.

CUTCH.

Cutch or Kachchh, between Sind and the peninsula of Káthiáwár, extending from 20° 47′ to 24° north latitude and from 68° 26′ to 71° 10′ east longitude, is surrounded on the north-east and south-east by the great salt waste known as the Ran. Exclusive of the Ran, Cutch has an area of 6,500 square miles, a population of 558,415, and a gross yearly revenue of about Rs. 16,72,990. Its almost complete isolation, cut off from the Indian continent by the Ran on the north and east, on the south by the gulf of Cutch, and on the west by the Arabian sea and the Kori mouth of the Indus, combined with the special appearance of its people and their peculiar dialect, give Cutch more of the character of a distinct nationality than any other portion of Western India. From the sea on the south and west, and from the Ran on the north and east the Cutch coast is in some places very slightly raised and fringed with mangrove swamps, in other parts it stands either in sand hills or in broken rocky cliffs. Inland towards the south and east stretch broad plains some deep-soiled others bare and furrowed with water-courses. Beyond the plains rise the central lands, mostly brown waving uplands deep in loose sand, broken by naked peaks, and bordered by ridg s of dust-coloured hills in parts relieved by bright-hued rocks and patches of tillage. The Rock formation of Cutch varies from the most recent pleistocene to metamorphic crystalline and trappean irregularly thrust through the wide-spread underlying jurassic. Though none of them rise more than 1,073 feet above the Ran the Hills of Cutch form one of its chief features. The highest, the fabulous Cutch volcano, is Dhinodhar twenty-four miles north-east of Bhuj. Next come the Thura hill about ten miles north-east of Bhuj, the Varav about five miles south, the Vichia, the steep-sided Jhandaria about seven miles east of Bhuj, and, about six miles north of Jhandaria, the Halmán, the central or Chorád hills with Dhrabva at the west end of the range. The southern or Dhola range has no peaks of interest. The Vágad hills in the south-east form a broad group stretching east and west. The Rivers of Cutch, taking their rise from the central hills, have not water enough to flow throughout the year. Of the north-flowing streams the chief is the Khári with a course of thirty miles. Rising from the Chorád hills it flows past Bhuj and receiving the Mithi from the right after a course of eight more miles falls into the Rán. Of south-flowing streams the Mádh and the Tera with courses of about thirty miles across the Abdása plain fall into the gulf of Cutch near Jhakau. Besides these local rivers the Banás from Mount Abu and the Luni from the Aravalli hills and Ajmir pass through Cutch and falling into the Ran inund te it during the rainy season, while in the west the Kori mouth of the Indus meets the sea north of Lakhpat. Of Reservoirs Cutch possesses the Saror meaning lake a round valley about 2½ miles broad with a dam thrown across its narrow eastern outlet. The neighbourhood of Sindhi in the west of the gulf of Cutch has from the time of Alexander the Great (B.C. 325) been a fresh or salt water lake, a muddy

CUTCH.

hollow, or a salt marsh according as the Indus waters have or have not been able to reach it. Encircling the province on the north and east, its level broken by four rocky islands, stretches the Ran or waste, the raised bed of an arm of the sea, supposed to cover about 9,000 square miles. From April to October the whole area is flooded one to three feet deep. A bitter salt little used, its only product, generally crusts the surface to a depth of one to three inches. Though known for more than 2,000 years as *irina* or the salt marsh the Ran seems more than once to have been under water. Alexander the Great (B.C. 325) fo nd the western Ran a great lake. Nearly 600 years later at the time of the Periplus (A.C. 250), though shoal and hard of access, the Ran seems to have been navigable, and for many centuries more a great part of the Indus waters crossed the Ran on their way to the sea. When the Ran was last navigab e has not been fixed. It seems to have been a salt waste in A.C. 1025 when Mahmúd of Ghazni crossed it and again in A.C. 1360 when it all but proved the grave of the army of Ferus Tughlak, Emperor of Delhi. The peninsula of Cutch lies almost beyond the rain-bringing influence of the south-west monsoon. Its scanty supply, averaging 10·55 during the eight years ending 1893, comes from the north and north-west round by north and east to south. The chief Minerals of Cutch are coal, alum, salt, and building stone. The coal is inferior both in quality and in quantity. Iron was formerly smelted, but the cheapness of the imported metal keeps the Cutch iron mines unworked. Cutch is a land of few Trees. The *nim* Melia azadirachta, *pipal* Ficus religiosa, and *bábul* Acacia arabica are occasionally found near villages. The tamarind Tamarindus indica and the banyan Ficus indica are more rare, the mango requires care and even on the coast the cocoanut Cocos nucifera is difficu t to rear. The date Phœnix sylvestris is common but does not yield fruit equal to the date of Arabia. The chief domestic Animals of Cutch are the horse, camel, ox, cow, buffalo, sheep, goat, and ass. Though the increased ease of importing Arab and other horses has much reduced the value of the Cutch breed, Cutch horses were long held in India in proverbial esteem. The somewhat slightly made Cutch camel, better fitted for the saddle than for burden, is famous for its fleetness. Of wild animals, though they have now disappeared, lions and tigers were plentiful in the beginning of the century. The panther is still found. The hyæna, the wolf, the jackal and three varieties of the fox, the wild boar, the somewhat rare black buck, the red antelope, the blue bull, the gurkhar or wild ass (Equus onagar) peculiar to Cutch, and the hare also occur. The chief Agricultural Products are of early or *kharif* crops, millet pulse and cotton; and of late or *rabi* crops, wheat barley gram and rapeseed. Rice is not grown.

PÁLANPUR.

Pa'lanpur, including the two first class states of Pálanpur and Rádhanpur and eleven petty states, lies to the east of Cutch between 24° 41′ and 23° 25′ north latitude and 72° 46′ and 71° 16′ east longitude, with a total area of 8,000 square miles, a population of about 645,526, and an estimated gross yearly revenue of about Rs. 16,58,221. Pálanpur forms the north-west corner of Gujarát. It is bounded on the north by Márwár and Sirohi, on the east by Mahi Kántha, on the south by His Highness the Gáikwár's territory and Káthiáwár and on the west by the Ran. The country is a plain with waving sand ridges separated by black-soil hollows. On the north it is broken by forest-clad outliers from Abu and Jásor: to the east it is woody and undulating and through a level slightly-wooded centre falls west and south into a salt waste and sandy plain. In the north-east the Jásor hills, with a central peak 3,500 feet high, are thickly clad with forest, chiefly bamboo. A mile south of the Jásor range the Chiklodar Máta hill (2,500 feet) stretches east. The other leading hills are the Karimábád hill near the village of Karimábád in east Pálanpur, and, at the western end of the Surbhákri hills, the Ráni Turik, a mile and a half from the town of Dántiwáda, the romantic scene of the ancient loves of Máru and Chandan Sodha. The chief Rivers are the Banás and the Sarasvati or Kumárika. The country is without natural lakes and except in Rádhanpur has few large ponds. The water which close to the hills is sweet and near the surface sinks far underground and becomes brackish in the western plains. During the eight years ending 1893 the rainfall at Pálanpur averaged 30 inches. Besides those given under Cutch the chief Pálanpur Trees are: of fruit trees the *bel*, the *mhowra*, the *temru*, the *ámla*, the *jámbú*, the woodapple, the mango, and the *ráyan*. Of timber trees besides the *bábul*, are the blackwood, the *khájro*, and the *arjan*. Of shade trees the *ádwso*, the *gundi*, the *gulur*, and the *vad*. The large forests in the north and north-east of Pálanpur might, if well managed, yield a considerable revenue. Of domestic Animals the oxen of Kákrej have from the time of the Emperor Akbar (A.D. 1600) been highly esteemed. They are the finest animals of their kind in Gujarát, if not in India. Buffaloes, cows, sheep and goats, camels, horses and asses are also bred. Of domestic birds hens are reared by Wághris. Of wild animals, besides the lion which is almost extinct, are the tiger, the panther, the bear, the hunting pard, the hyæna, the wild boar, the hare, and the wolf. Of deer are the stag, the spotted deer, the antelope, the black buck, the ravine deer, the blue bull, and the Indian gazelle. Of game birds, the florican, the *karmor*, the bustard, the painted and the gray partridge, the common the jack and the painted snipe, the wild goose, the sand grouse, and the pelican. The district abounds in waterfowl, being specially rich in the variety of its wild duck. The chief fish found in the rivers ponds and pools are the *maral*, the *pádia*, the *dhebar*, the eel, and the *singára*. Snakes both harmless and venomous are found, the average yearly death-rate from snake-bites being about twenty. About three-fifths of the whole area is under tillage. Of the remaining two-fifths, one is arable waste the other unarable. The Soil produces the usual Gujarát cereals and pulses, and of fibres cotton in the rich black-soil of the Sami sub-division of Rádhanpur, hemp, and *munj* Saccharum munja. Sugarcane and small patches of tobacco are also grown in Pálanpur.

KÁTHIÁWÁR.

Ka'thia'wa'r, to the south of the Gulf of Cutch and the Little Ran and the south-west of the Pálanpur Superintendency, and eastwards cut off from continental Gujarát by the Gulf of Cambay, stretches westwards into the sea further than any portion of the coast line of India. In shape the peninsula of Kathiawar is an irregular semicircle, its northen face broken by the sweep of the gulf of Cutch, lying between 20° 40′ and 23° 25′ north latitude and 69° 5′ and 72° 20′ east longitude. It has an area of about 20,496 square miles, a population of about 2,752,404, and an estimated gross yearly revenue of Rs. 1,49,97,969. Of these totals 1,320 miles of area and Rs. 2,66,000 of revenue belong to the Gogha and Dhandhuka sub-divisions of the Ahmedábád collectorate; about 7 miles of area and Rs. 38,000 of revenue to the Portuguese settlement of Diu; and about 1,320 miles and Rs. 1,09,000 of revenue to the Amreli and Okhamandal districts of His Highness the Gáikwár. Besides these separate territories Káthiáwár includes seven first class states, Junágadh, Navánagar, Bhávnagar, Porbandar, Dhrángadra, Morvi, and Gondal; seven second class, Vankaner, Palitána, Dhrol, Limbdi, Rájkot, Wadhwán, and Jáfarábád; six third class, and eleven fourth class. The Physical Features of Káthiáwár suggest that it was once a group of volcanic islands. Along its northern border stretch the shallow waters or the salt-encrusted surface of the Ran. Along the east between Káthiáwár and the mainland a belt of salt lands and the long lagoon of the Nal mark the line of depression, which, unless the evidence of travellers is unusually at fault, until recent times during the rains

KÁTHIÁWÁR.

formed a connecting link between the Gulf of Cambay and the Little Ran. Three travellers of authority, all of whom visited Cambay, speak of Káthiáwár as an island. The first of these, Varthema, A.D. 1503 - 1508 (Badger's Edition, 105), says that the city of Cambay lies three miles inland close to the mouth of the Indus: Baldæus, A.D. 1672 (Churchill's Voyages, III. 566), states that Cambay stands on one of the largest channels of the Indus: Hamilton, A.D. 1690 - 1721 (New Account, I. 131), states that one of the largest branches of the Indus running into the sea at Cambay makes Gujarát an island. Still more difficult to consider a mistake is Captain MacMurdo's statement in 1813 (Journal Royal Asiatic Society, I. 41), 'a tract similar to the Ran and known partially by the same name connects the gulf of Cutch and Cambay forming an island of the peninsula of Gujarat for six months in the year.' From the coast Káthiáwár rises to a central tableland where all the rivers of the peninsula take their rise. The silt of the old eastern branch of the Indus and of the rivers Luni, Banás, Sarasvati, and Rupen, gradually filling the sea bed, perhaps with some help from the great upheaval of 1820, has joined north-east Káthiáwár with mainland Gujarát. Except this eastern alluvial, the surface of Káthiáwár is everywhere undulating and broken into hills. The highest eminences lie in an arc across the south of the peninsula, the loftiest summits from west to east bring the Bardas of Porbandar, the Osham hill near Dhoráji, Girnár at Junágadh, and Satrunjaya near Pálitána. North of this arc lying south-west and north-east a rough tract, nowhere more than 700 feet high, falls to the north but again rises to 1,173 feet and ends in the Chotila hill. From Chotila a rolling plain broken by the Mandhao range merges northward in the Ran and eastward in the Nal. The surface rocks are limestone in the south and sandstone in the north. The splendid central crown of Girnár is granite and the lower ranges are trap and basalt. Lying midway between the dry deserts of Sind and the moist woodlands of the Konkan, Káthiáwár partakes of the nature of both. Its shores resemble the coast round the head of the Arabian sea. From the sandy western tracts of Okhamandal and the eastern cactus-covered Jhálavád to the perennial streams and romantic glades of the southern Gir, from the desolate barren waste of the Ran to the shady groves and green fields of the south-western seaboard, from the desolate parched and salt-charged plains of the east and west to the garden villages of the south, from the bare dwarf hills of Hálárto the temple-topped peaks of Girnár, and from the roadsteads of Cambay gulf to the snug harbour of the island-rock of Diu the peninsula of Káthiáwár shows every variety of scenery. Káthiáwár has nine leading Rivers, the Bhádar, the Shatrunji, the Machchhú, the Aji, the Bhogávás, the Sukha-Bhadar, the Keri, the Ghela, and the Kalúbhár. Except the Bhádar and Shatrunji none of these rivers are of considerable size. Of salt water Creeks the most important are the Hansthal connecting the outer and inner gulf of Cutch, Bhávnagar forming the channel between that town and the gulf of Cambay, the Sunárái eight miles north of Bhávnagar, and the Bávliáli two miles north of the Sunárái creek, and the Dholera leading from the gulf of Cambay ten miles inland to the town of Dholera. Except Bet, the extreme north-west corner of the peninsula where boats can lie during the south-west monsoon, Káthiáwár, notwithstanding its extent of coast, has no really good harbour. The principal Ports are: in the gulf of Cutch, Vavániya Jodia Beri and Saláya; in the gulf of Cambay, Dholera Bhávnagar and Gogha; and on the south and west coasts, Mahuva, Jáfarábád, Diu, Verával, Mangrol, Navibandar, and Porbandar. During the eight years ending 1893 the rainfall at Rájkot averaged 25 inches. The chief Islands are: Pirám in the gulf of Cambay, Chánch Shiál and Diu off the south coast, Bet in the west, and the Chanka islets in the gulf of Cutch. Of Lakes the chief are the Nal, an extensive sheet of slightly brackish water along the north-east frontier, and the Ghed on the south-west coast near Mádhavpur. With the help of the Nal two Rans or salt wastes nearly encircle the east and north-east of Káthiáwár, the Little Cutch Ran and the Ran of Cambay stretching about thirty-five miles north from the mouth of the Sábarmati. Káthiáwár abounds in Minerals and is particularly rich in building stones. Its principal metal is iron, but owing to the scarcity of wood and the cheapness of European iron the ore does not repay the cost of working. A coal shale has been found but is not of a kind likely to prove useful. Pearls of good quality but in lustre inferior to Basrah pearls, and white coral of no market value are found near Navánagar. Except among the Girnár hills, in the Junágadh Gir and in the Barda hills under Porbandar the early forests of Káthiáwár have disappeared. A beginning of re-wooding has been made in Mahuva under Bhávnagar. Of fruit excellent mangoes are grown in Mahuva from Bombay grafts. And of liquor-yielding trees all along the south coast the cocoa-palm grows rapidly and bears steadily, and the wild date is fairly common over the province. Of domestic Animals, Gir and Barda buffaloes are famous and Káthiáwár cows are considered good milkers. Though of late the breeders have not carried on their business with the same zest as of old, the famous Káthiáwár horse, owing his excellence to repeated crosses with the Arab, is still not uncommon. Camels also are reared and the breed of asses is particularly fine. Sheep and goats receive little attention. Of wild animals the most famous is the lion. The panther still finds shelter in the hills though he has disappeared from the plains, and the hunting pard or *chitah* is sometimes found. Other wild animals are the hyæna, the wolf, the fox, the lynx, the Indian badger, the ant-eater, the wild cat, the wild pig, the mongoose, and the monkey. The *sámbar* or stag is found in the Girnar, the spotted deer, the antelope, the four-horned deer Tetraceros quadricornis, the Indian gazelle, and the wild ass. Of reptiles, the Indian python, the cobra, the whipsnake and others abound, and the land tortoise is common. The Soils of Káthiáwár are classed under the two heads of black and red. Besides the usual Gujarát cereals, pulses, fibres, vegetables and fruit, cotton is largely grown, and, except in Jhálávád, sugarcane forms an important crop. The betel vine is cultivated in Chorvád in the south, at Mangrol in the south-west, and at Mahuvá in the south-east.

NORTH BARODA.

North Baroda, the rich central lands between Rádhanpur in the west and Mahi Kántha in the east, an unbroken plain sloping gently from north-east to south-west, form the northern or Kadi-Pátan division (3,158 square miles; about 990,000 people; Rs. 30,15,770 revenue) of His Highness the Gáikwár's territories. Without any forest tracts the south-west portions of the Kadi-Pattan plain share the parklike appearance of the southern section of Central Gujarát with lines and groves of *váyan*, *mahuda*, and mango. Westwards the division passes into the monotonous black soil plain that well deserves its local name *rukh* or dreary. Except in Kadi where the surface water is brackish, and at Hanj, east of Rádhanpur, where it is as much as sixty feet below the surface, water is easily obtained and the light soil is highly cultivated. In general features and in products the division does not differ from Pálanpur in the north or Ahmedábád in the south. No portion of Gujarát has sturdier people, richer villages, or better-bred cattle than the Kadi-Pattan or northern division of Baroda.

MAHI KÁNTHA.

Mahi Ka'ntha, lying in the extreme north-east corner of mainland Gujarát, is bounded on the north by the mountainous Bhil districts of Sirohi and Meywár; on the east by Dungarpur Lúnávada and Káira; on the south by the Reva Kántha Agency, Káira, and a small part of Ahmedábád; on the west by Baroda territory; and in the extreme north-west by Pálanpur. The Mahi Kántha or Mahi bank is situated between 23° 5′ and 24° 35′ north latitude and 72° 21′ and 73° 45′ east longitude. In spite of the name the Mahi Kántha territories extend a hundred

MAHI KÁNTHA.

miles nort of the Mahi to the Sarasvati, being distributed over fifty-nine states with an area of 3,528 square miles, a population of 581,568, and a yearly revenue of about Rs. 12,53,824. Of Mahi Kántha states the largest is the first class state of I'dar, with a yearly revenue of over Rs. 2,50,000. Stretching from the hilly eastern border into the level centre of Gujarát, the northern and eastern portions of the Agency are rough and wild, broken by steep woody ranges and seamed by rivers whose banks are cleft into deep and difficult ravines. The land falls towards the south and west till, in the level well-wooded and tilled country near Sadra and Ahmednagar, the plain is hardly 400 feet above the sea. The north and east hills are steep and craggy granite ranges covered with bamboos and other trees and brushwood. Though they flow during the whole year none of the Mahi Kántha rivers has volume enough to be of use for boat traffic. The seven chief Rivers, all of which rise from the eastern highlands and flow south-west, are the Sarasvati, Sabarmati, Hathmati, Khári, Meshwa, Majam, and Vátrak. The waters of the Háthmati are largely used for irrigation. During the eight years ending 1893 the rainfall at Sadra averaged 30 inches. The two leading varieties of Mahi Kántha Soil, the light sandy and the black, are both of them rich. On the north and east the steep craggy hills of pink or gray granite, though ornamented by large feldspar crystals, do not yield a stone which is fit for building. Of Trees the Mahi Kántha has the *mahuda*, the *amba* or mango, the banyan, the *asopálo*, the *khirkhru*, the woodapple, the *nim*, and the teak. Of domestic Animals, the Mahi Kántha bullocks are weaker and smaller than those of north Gujarát, the buffaloes also are inferior, and neither the local sheep nor goat is in any way special. Camels, both for the saddle and baggage, are reared by Rábáris, horses by Rajputs, and asses by potters. The wild animals, many of which are becoming rare, are the tiger, the panther, the bear, the wo f, the wild boar, the hyæna, the jackal, and the fox. Of deer are the stag, the spotted deer, the antelope, the Indian gazelle, and the blue bull. The otter, hare, monkey, and wild cat are common. Snakes both harmless and venomous abound. The chief game birds are junglefowl, wild duck, snipe, green pigeon, rock grouse, partridge, bustard, and florican. The rivers are well stocked with fish, among them *maral*, *vanja*, *rohia*, *páhádi*, and *singali*. The chief Crops are, of cereals wheat, barley, chena, rice, *bájri*, and maize; of pulses gram, of fibres cotton, of oilseeds sesame, and of garden produce sugarcane. To the excellent qualities of a chalky sandstone found near Ahmednagar is in great measure due the minute carving and ornamentation which are the special merit of the mosque and temple architecture of Gujarát. The Idar quarries, from which most Ahmedábád mosques and temples have been hewn, ield at present a yearly revenue of Rs. 3,000.

AHMEDA'BA'D

Ahmeda'ba'd, the northmost collectorate of Gujarát, lying between 21° 25′ 18″ and 23° 37′ north latitude and 71° 21′ and 73° 28′ east longitude, with a total area of 3,819 square miles, a population of 921,712, and a gross yearly revenue of Rs. 30,87,999, is the country to the north and the coast strip to the west of the head of the gulf of Cambay. The main portion is bounded on the north by the Gáikwár districts of Dehgám and Kadi; on the east by the Mahi Kántha; on the south by Kaira; and on the west by the Ran and by Jhálavád in Káthiáwár. The coast strip is bounded on the west and south by the Káthiáwár states of Jasdan Wála and Bhávnagar, and on the east by the gulf of Cambay. Near Modása in the extreme north-east the long low spurs of the Dungarpur hills sink into a tract of rock overlaid by scanty soil. As the converging courses of several rivers show, the country slopes south-west with gradually deepening soil, into the Dehgám sub-division of Baroda, similarly the rocks of south-east Modása gradually pass westwards into the fertile fields of Kaira. To the west the rocks disappear in the waving sandy plain of Parántij sloping from the Háthmati banks into hedgeless, often treeless fields, always ferti e, and in places on the Khári and Meshwa even picturesque. Further west a more richly wooded tract crossed by the Hathmati canal and the Bokh breaks into precipitous heights and deep ravines. Twenty-five miles from the southern limits of this section stands Ahmedabad encircled by several miles of park land. Relics of former splendour, from the dome of Batva, the minarets of Sháhi Alam, the monastic courts of Puránah, the embattled fort of Káli, and the pillared palaces and shrine of Sarkhej down to the wayside tomb and the brick foundations of long forgotten suburbs meet the eye on every side, together with the signs of a prosperous present, highly cultivated fields, railways branching north and west, and neatly built schools and rest-houses. Except a few small hummocks the land is an unbroken level, and on every side but t e north the prospect is lavishly enriched with trees. Along the right bank of the Sábarmati the characteristics of Daskroi are prolonged into Dholka. Towards the west and south they disappear, shading off into the fertile but flat black-soil of the Bhál, slightly rising north-east of Viramgám into the sandy Chuvál, and sloping south and west in treeless stretches of rice and wheat to the Nal and the wide salt wastes of the Ran. Beyond the Bhogava river, without irrigation the rich black soil yields luxuriant crops of wheat and cotton, but neither tree nor hedgerow breaks the dead level. Compact villages stand out of level expanses of verdure which the blighting April sun turns to arid wastes. Round Dholera the flats are charged with salt and broken by marshes. Along the western border the land changes into a reddish but not unproductive soil of uneven surface, and a little further a narrow strip of the district runs right into the rocky interior of Kathiawar. The little isolated sub-division of Gogha, true to the characteristics of south-east Kathiawar, is broken into hills of crumbling limestone abounding in grass though the trees are few and stunted. Numerous small streams flow through the country and the valleys are fertile and well wooded. With the exception of some ridges of metamorphic rock, seldom more than 500 feet high, and in the west a series of low hills a few miles from Dhandhuka, the plain of Ahmedabad is unbroken by hills. The Khokra range in Ghoga with a height of 96 feet runs north and south parallel with the gulf towards which it throws out lateral spurs. Ahmedábád has two distinct River systems: one flowing south-west from the eastern highlands; the other flowing east from the Káthiáwár hills. To the first belong the Sábarmati, the Khári, the Meshwa, the Majam, the Shelva, and the Andhári; to the second the Bhogava, the Bhádar, the Utávali, the Nilki, the Pinjária, and the Adhia. The Bokh or Hollow, a broad and deep depression beginning near the meeting of the Hathmati and the Sábarmati and running south through Parantij, also ranks as a river. It is a chain of pools and morasses, the larger sheet, 156 acres in extent, being called the large, and the smaller sheet covering 35 acres, the small, Bokh. According to a local tradition the Bokh is a former channel of the river Háthmati, the stream of which is said to have been directed into the Sábarmati by an embankment made under the orders of Ahmadsháh (A.C. 1411 - 1443) to increase the water-supply of his newly built capital of Ahmedabad. The chief Creeks are Dholera, Bávliári, and Gogha. Of Lakes are: the Nal covering forty-nine square miles, the Chandola about two miles south of Ahmedabad covering 181 acres, the walled and stepped Kankaria lake about a mile south of Ahmedabad covering 72 acres the largest reservoir of its kind in India, the Malik Shaubán lake about two miles to the east of the city, the Sarkhej lake built by Mehmud Begada (A.C. 1459 - 1511), the Mánsar lake near Viramgám built by Minal Devi the mother of Sidhráj (A.C. 1094 - 1143), the Málar at Dholka built by the same queen (A.C. 1115), the Multán lake at Dhandhuka, the recently constructed lake covering sixty acres at Dholera, and the Sonária reservoir covering forty-eight acres at Gogha. The Mineral products are: of precious stones, the veined agate, and of building materials, limestone. Iron ore seems to have been worked in Gogha and considerable tracts in Viramgám and Dholera are covered with earth suitable for the manufacture of saltpetre. Ahmedabad has no forest. At the close of the last century (1787) a blackwood plantation is said to have existed near Ahmedabad and a sandalwood plantation near Dholka. The two chief Soils are the black and the light. Though in many parts of the district both these soils occur in the same village, on the whole the black soil is found chiefly in the west and the light soil towards the east. The light soils are so well supplied with

springs that with the help of manure the cultivator is able to raise a cold weather and even a hot weather crop after the early harvest has been reaped. The low *bára* lands of Dhandhuka and Dholka are too moist for cotton, but, when the rain-waters subside, wheat of a very good quality is raised. The best rice is grown in Daskroi, and next to Daskroi in Sinand and Dholka. Two minor soils are; an alluvial deposit of the Sábarmati, the most fertile in the district, and in Parántij in the north-east, and also in Rampur and Gogha in the south-west, a red stony soil like that of the Dekhan. During the eight years ending 1893 the rainfall at Ahmedábád averaged 30 inches. Ahmedábád is on the whole rather bare of timber, and except in the north-east is poorly wooded. The chief Trees are: the mango, the *rayan* Mimusops indica, the *mahuda*, and the *nim*. The Modása hills have a small store of inferior teak and bamboos and produce the *kher*, *bábúl*, *pipal*, *bordi*, and *khákhra*. The chief domestic Animals are: cows, oxen, buffaloes, sheep, goats, camels, horses, and asses. The Daskroi Dholka and Dhandhuka oxen are strong and well grown, but those of other parts are inferior. Sheep and goats are bred in the district and also imported in large numbers from Márwár and sent to Bombay. Ahmedábád is one of the best horse-breeding districts of the Presidency and a stud of Arab stallions is kept by Government. Horses are reared by large landowners and by Kabuli merchants, from Káthi and even Arab breeds. Camels are reared by Rajputs and Rabáris. There are two breeds of asses, the local and the big Halári ass. The wild animals are the tiger, panther, black bear, hyæna, wolf, and jackal. Formerly tigers infested the neighbourhood of the city, now they are rarely found even in east Modása and the Máhi Kántha border. Of the deer, the stag, the blue bull, the spotted deer, the antelope, the Indian gazelle, the *bhakar* or four-horned deer are found, and of smaller animals the hare otter and badger. The district is rich in game birds the chief of which are: in the west the large sand grouse a noble bird measuring two to three feet across the wings, the common sand grouse, the common peacock, the painted and the gray partridge, six varieties of quails the rock-bush the jungle-bush the gray the rain the bustard and the button quail, the Indian bustard, the lesser florican; of plovers four kinds. Of water birds are three kinds of snipe, storks, coots, geese, and duck. The rivers reservoirs and pools are well stocked with fish. The chief Crops are: of cereals wheat, *bájri* or millet, rice, *kodra*, *vari*, and maize; of pulses gram *math*, *mung*, *gunár*, *udad*, *tuvar*, and *val*; of oilseeds sesame rapeseed and mustard; of fibres cotton and *sun*; and of miscellaneous crops, safflower tobacco and indigo.

KAIRA.

Kaira to the south of Central Ahmedábád, between 22° 15′ 25″ and 23° 10′ north latitude and 72° 33′ 40″ and 73° 27′ east longitude, including the small state of Cambay in the extreme south-west (3350 square miles; 89,722 people; Rs. 7,83,703 revenue) from the head of the gulf of Cambay, with a breadth of twenty-five to forty miles, stretches sixty miles north-east along the right bank of the Mahi. To the north from the Sábarmati to the Mahi, no natural boundary divides Kaira from Ahmedábád the Mahi Kántha and Bálásinor, while on the east south-east and south the Mahi river separates it from the Panch Maháls Baroda and Broach. On the south-west it is bounded by Cambay and on the west by the river Sábarmati. To the north and east, except for an occasional Mahi Kántha village, the Kaira collectorate forms a compact tract. From the west a broad wedge of the Gáikwár's territory thrusts itself nearly into the centre of the district, and the villages of the Borsad sub-division towards the south are interlaced with those of Baroda and Cambay. The total area of the district is 1,609 square miles, the population 871,589, and the yearly gross revenue Rs. 38,45,965. Except a corner of hilly ground near its northern boundary, and in the south-east and south, where along the Mahi the surface is furrowed into deep ravines, Kaira is an unbroken plain sloping gently south-west. Though almost all of it is fit for cultivation the land varies greatly in quality, the north and north-east, except patches of rich rice land, lies fallow, and is covered with low brushwood. In the central most fertile and well tilled Charotar the people are skilful and rich cultivators living in well-built comfortable houses. The fields, yielding the choicest crops, are guarded by high hedges, and the whole country, clothed with rows and clusters of trees, continues to deserve its Moghal (A.C. 1580) title of Garden of India. Westwards this belt of rich vegetation passes into a bare though well cultivated tract of rice land. Towards the south, as it approaches the gulf of Cambay, the land grows barrener and more open, and between the fields stretch unfruitful salt-poisoned patches. In the small state of Cambay Kaira passes to the top of the gulf between the mouths of the Mahi and Sábarmati an open country flat except near the rivers where the banks are carved with water-courses and piled in earth cliffs forty to eighty feet high. Especially north and west to the Sábarmati the land is somewhat bare of trees. Still except in the hot months it is beautifully rich and green. Kaira has two chief Rivers, the Máhi running along its eastern and southern boundary for nearly a hundred miles, and, on its north-west, the Sábarmati, touching the district only for a few miles, but taking along the channels of the Shedhi and Wátrak the bulk of the local drainage. The Khári rising in the Idar hills passes through a few villages in the extreme west of Kaira on its way to join the Sábarmati. Though its average yearly rainfall is not more than 38 inches, since the earliest years of British management Kaira has been liable to suffer from floods. Two low tracts, one between the Shedhi and the Sábarmati in the west, the other in the south-west and south, including parts of Nadiád Petlád and north Borsad, are at times swamped with water from the raised lands along the right bank of the Máhi. In the absence of natural lakes Kaira is well supplied with ponds or reservoirs covering a total area of 14,553 acres. Except some large heaps of iron slag in the neighbourhood of Kapadvanj Kaira has no trace of Minerals. In the bed of the Majam near Kapadvanj are found varieties of agate and moss-pebbles. In the Mahi are masses and boulders of trap, and a rock useful for road metal is plentiful in the east near where the Mahi enters the district. Limestone in nodules occurs near most of the Kaira rivers and sand fit for mortar is found in the Mahi as well as in some of the lesser streams. In the low broken ground near Kapadvanj a white crust of impure carbonate of soda is collected and used in making glass and soap, and as a mordant in dyeing cloth. Agriculture supports about 67·62 per cent. of the people. The Soils of the district are of four chief kinds: the light, medium, black, and alluvial. The light or *gorát* is the prevailing soil. The richer variety of this soil known as the *gorádu besar* contains a large proportion of organic matter and to a great extent seems artificial, the result of many centuries of careful tillage. The medium soil is generally distributed. The Kaira black soil, as a rule, is poor. The alluvial chiefly near the Wátrak, year after year, without dressing or fallow, yields rich crops of tobacco the finest in Western India, safflower, and other garden produce. Though one of the best wooded parts of the Presidency, Kaira has no forest. The chief Trees are the *mahuda*, *rayan*, mango, custard apple, and *karanj*. The chief domestic Animals are the same as those of Ahmedábád. The Bhálaj breed of Nadiád oxen is famous for size strength and endurance. The buffaloes are fair milkers and are exported to Surat and Bombay. Sheep and goats are reared by Rabáris and Bharwáds. Horses are bred by rich cultivators and landowners and a stallion of the Government Ahmedábád stud is stationed at Kaira. Camels are bred by Rabáris and large numbers are brought to graze from Márwár and Káthiáwár. Of wild animals tiger

KAIRA.

formerly common in the rough country near the Mahi are now rarely met with. A few panthers are still found. The other animals are the wolf, the hyæna, the wild boar, and of the deer tribe the blue bull, the antelope, and the Indian gazelle. Of wild birds, the goose, the blackbacked goose, many sorts of duck and teal, snipe, bustard, florican, two sorts of partridges and quails, sand grouse, cranes, plovers, spoonbills, bitterns, peafowl, and green pigeon are common. The two chief poisonous snakes are the cobra and phursa. The rivers abound in fish. Of thirty-one kinds nine are found in the Mahi within tidal limits. The chief Crops are: of cereals, millet, rice, *kodra*, *banta*, wheat, barley, maize, *kang*, and *váj garo*; of pulses, *math*, gram, *mug* and *gunár*, *udad*, *chola*, and *vál*; of oilseeds sesame and *sarsav*; of fibres, cotton and Bombay hemp; of miscellaneous crops tobacco is extensively grown and to a less extent safflower, sugarcane, cummin seed, and indigo. The collectorate of Kaira includes the first class native state of Cambay with an area of 350 square miles, a population of 89,722, and a gross yearly revenue of Rs. 7,83,703. The boundaries of the state which is situated at the head of the gulf of Cambay, with Kaira to the north, the Kaira sub-division of Borsad and the Baroda máhal of Pitlád to the east, the gulf of Cambay to the south, and the Sábarmati river separating it from the Ahmedábád district to the west are very irregular. Some Cambay villages are entirely surrounded by British territory while some British and Gáikwár villages are entirely within Cambay territory. The country is flat and open, interspersed generally in the vicinity of villages with mango tamarind and pipal groves. From the position of the state between two large tidal rivers the land, except towards the north and east where there are stretches of fine black soil, is generally salt-soaked and the water brackish.

CENTRAL BARODA.

Central Baroda to the south-east of Kaira, in the centre of mainland Gujarát, is the head-quarters of the central division of His Highness the Gáikwár's territories. The main portion of this central division, lying between the Mahi and the Narbada, is fairly compact. It includes a large share of the red loam of north Gujarát as well as of the rich black lands of the southern half of the province. In the north-west the appearance and products are similar to those of the Kaira sub-divisions of Nadiád and Borsad. Eastwards Central Baroda passes into poorer and rougher lands, the same in character as the western Pándu Mehvás and the southern Sankheda Mehvás villages of the Reva Kántha. Towards the south-east and south-west the western portions pass into the bare black-soil plain of eastern Broach. The products of these Baroda lands do not differ from those noted in the neighbouring districts.

PANCH MAHÁLS AND REVA KÁNTHA.

Panch Mahals and Reva Kántha. From the Mahi Kántha to the Tápti the joint charge of the Panch Maháls and the Reva Kántha occupy the entire east of Gujarát.

The Panch Maháls or five sub-divisions lying between 22° 30′ and 23° 10′ north latitude and 73° 35′ and 74° 10′ east longitude, have a total area of 1,606 square miles, a population of 313,417, and a gross yearly revenue of about Rs. 36,11,884. Associated and intermixed with the Panch Maháls, the Reva Kántha or Narbada Bank states consist of the first class state of Rájpipla, five second class, four minor and fifty-one Mehvás estates, lying between 21° 23′ and 23° 33′ north latitude and 73° 3′ and 74° 18′ east longitude, and including, besides lands stretching about fifty miles along the south bank of the Narbada, an irregular band of territory from ten to fifty miles broad, passing north to about twelve miles beyond the Mahi, and an isolated strip on the west lying chiefly along the left bank of the Mahi. Its extreme length from north to south is about 140 miles and its breadth from east to west varies from ten to fifty miles. The Reva Kántha is bounded on the north by the Meywár states of Dungarpúr and Bansváda; on the east by the Jhálod and Dohad sub-divisions of the Panch Maháls and by the Ali Rájpur state of the Bhopávar Agency and part of Khándesh; on the south by Baroda territory and the Surat district; and on the west by Broach, Baroda, the Panch Maháls, Kaira, and Ahmedábád. The Reva Kántha has an area of 4,980 square miles, a population (1891) of 753,506, and a gross yearly revenue of about Rs. 24,08,004. In the outlying villages to the west along the Mahi, and in the north and south where Reva Kántha stretches into the plains of Gujarát the country is open and flat; but generally the Agency is hilly. Lying in the extreme east of Gujarát, the Panch Maháls consist of two groups separated by a hilly and forest-clad strip of the Báriya state varying in breadth from about nine miles in the north to thirty in the south. The western or larger group comprises the sub-divisions of Godhra in the north and of Kálol and Hálol in the south. Except the Kaira district beyond the Mahi to the north-west, this western group is on all sides surrounded by native territory, having Baroda to the west and south, Báriya to the east, and Sunth and Lunáváda to the north. The eastern group including Dohad and Jhálod is surrounded by Lunáváda and Sunth in the north-west, by the Meywár state of Kushálgadh in the north and north-east, by the Málwa state of Jhámbua on the east and south-east, by the Bhopáwar state of Áli Rájpur on the south, and by Báriya on the south-west and west. For administrative purposes the district is distributed into three sub-divisions, Godhra in the centre, Kálol including the petty division of Hálol in the west, and Dohad including the sub-division of Jhálod in the east. The western division of Godhra Kálol and Hálol is a plain rising gradually to the east. It is little cut into by rivers, and except in the north by some small hills and in the south where at Chámpáner the great mass of Pávágadh rises 2,700 feet high, is broken only by occasional granite-topped mounds. The western division includes three belts, a northern a central and a southern. In the northern belt, which is about twenty miles broad, lies Godhra rich and well-tilled in parts, but on the whole wild and rudely cultivated, much of it covered with brushwood and forest, and broken in the north and east by bare patches of granite rock or peaks of strangely piled granite boulders. The central belt, about ten miles broad, is formed by the highly tilled lands of Kálol studded with rich brick-built villages, laid out in hedged fields, dotted with mango and *mahuda* groves and marked by rows of palmyra palms. In the southern belt the country grows gradually wilder till, after about eight miles, near Hálol the plain breaks in o the spurs and ridges that centre in the massive hill of Pávágadh. So far the villages are rich and well-built and surrounded by carefully kept fields. But near the Pávágadh spurs and south-east about fifteen miles further to the borders of the petty state of Nárukot or Jámbughoda the country is covered by a low growth of forest timber. To the east of the Godhra-Kálol division and, separated from it by a rough wooded belt of Báriya land, and higher by seven or eight hundred feet than the Godhra plain, Jhálod and Dohad form a compact block of about forty miles north to south and twenty miles east to west. The eastern plain presents a waving surface seamed by water-courses and roughened by a succession of low abrupt ridges separated by rich moist valleys narrowing south-wards. The uplands and valleys are opener and barer than in the western division. Though scantily wooded and much of it waste, the country is well watered by pools and streams and is not devoid of beauty. In the cold season the hedgeless gram and wheat fields are unbroken stretches of rich deep-green varied by bamboo and brushwood-clad mounds and bare snow-white quartz-capped knolls. The view seldom wants a back-ground of soft woody hills, relieved here and there by compact well-built villages, or on rising ground, detached

Bhil dwellings enclosed by a creeper-covered bamboo trellis. Later in the season the effect is enriched by the gold of the ripening wheat fields and in former years was brightened by stream-banks fringed with belts of gay white and red poppy. In the hot months, though scorched and bare, long stretches of the scarlet-blossomed *khákhra* (Butea frondosa) enliven the landscape. The Reva Kántha states to a great extent have the same characteristics and varieties as the Panch Mahále with which they are intermixed. To the north Bálásinor and Lunávada are somewhat wilder and more outlying. Godhra, and, to the north-east, Kadána Sunth and Sanjeli have the same low woody hills and sandy plains as western Jhálod. In the rock-cleft passage of the Ma ii, through three ranges of small hills a few miles north of Kadána the lofty cliffs and the deep channel of the river form a scene which for interest sanctity and beauty holds its own with either of the two chief sights of eastern Gujarát, the scarps of Pávágadh, or the rapids of the Narbada. Báriya roughened by the parting between the water-sheds of the Mahi and Narbada is wilder and more forest-clad than any portion of the P nch Mahále. The valleys nd low bare ranges of Chota Udepur g in dignity and interest as they pass eastwards to the lofty hills and rich wild gorges that lead to Hamph, the beautiful place of pilgrimage above the rapids of the Narbada. The lower reaches of the Narbada and the clay cliffs of the Or river give grace and picturesqueness to much of the otherwise dull Sankheda Mehvás. And across the Narbada, stretching as far as the Tápti, Rájpipla includes every variety of feature from the black plain villages of Broach to the woody alluvial lands on the Narbada, and east among the western spurs of the Sátpudás to tracts of hill and forest as wild as any in Gujarát. The main ranges of hills are within Reva Kántha limits. The chief is in Rájpipla, the west end of the Sátpuda range, the water-parting between the Narbada and Tápti valleys. Of the two ranges of western Sátpudás, a northern flanking the Narbada and a southern flanking the Tápti, the northern except one outlying spur from the south alone lies within Rajpipla limits. The northern hills steep and rugged, with Dev Satia (2,000) and other difficult peaks, spread west for about forty miles with an average breadth of about twelve miles covered with timber and giving shelter to tigers panthers and bison. Near Ratanpur in the extreme west, in a fringe of older tertiary rocks, are the famous agate-yielding beds. Two other ranges deserve notice, the water-parting of the Narbada and Mahi that, about 800 feet high, dividing Báriya from Chota Udepur, runs west from Ratanmál forty miles to Pávágadh, and the water-parting of the Mahi and Anás that, 800 to 1200 feet above the sea, runs north from Ratanmál separating Báriya Sanjeli and Sunth on the west from Dohad and Jhálod on the east. Within Panch Mahále limits neither the low steep ridges in Dohad nor the granite-topped mounds in Godhra can rank as hills. But the country is redeemed from plainness and enriched with historic interest by the ancient capital and fortress dear to the Hindus as Pávágadh the Cleanser and to the Musalmáns as Pavangadh the Wind Fort. About two miles to the south-east of Hálol this worshipful hill, from a massive base whose spurs and buttresses roughen a circuit of over twenty-six miles, rises into a clear-cut line of rock about 2,500 feet above the plain. The stunted timber that covers its spurs and lower slopes disappears as the hill rises into the bare trap cliffs that on all sides, except the walled and bastioned north-east corner, support the flat top on which rests Kálika Máta's temple-crowned citadel of rock. Many hands have been laid on Pávágadh since the days of the early religious settlers, the cave-dwellers at the south foot and the skilful carvers of the small hill-top Jain shrines perhaps of the ninth century. First the legendary Gaur or Tuar. Then the historic Chohán the colonisers and fortifiers of the north-east slopes and builders of the Shaiv hill-top temples. Next the Great Mehmud Begada (A.D. 1498) the builder of north Chámpáner at the foot, the strengthener of the lower nd the maker of the upper fortifications. Then the sudden soon-loosened grasp of Humáyun (A.D. 1530), and the second hold of the Ahmedábád kings (1530 - 1573), passing to Akbar (A.D. 1583) and held for the Moghals till the triumphant progress of the eighteenth century Maráthás. Next in 1803 it was seized by Colonel Woodington and almost at once handed to Sindia, and, after fifty years, finally passed into the hands of the British. Except of two of these holders the Chohána and the Ahmedábád Sultáns almost all local trace has perished. In the three lines of fortifications that protect the lower and middle forts, in the remains of the mint and of the Mehdi pond and palace, nd in the Sát Mehel or seven-storied cliff-cut palace, though concealed and confused by Musalmán additions, the bulk of the work is Chohán. On the other hand to the Ahmedábád Sultáns belong almost the whole fortifications of Maulya, the Lord of the hill-top, and at the hill-foot the whole of the great and beautiful citadel walls mosques and tombs of deserted Chámpáner. Almost the only trace of the Maráthás is the flight of steps nd the massive marble-floored temple of Kalika Máta which with its guardian Musalmán roof-tomb crowns the crest of the top-most rock. Except a portion of the west and south-west which drains into the Baroda Vishvámitri both the eastern and western divisions of the Panch Mahále slope towards the Mahi. Over most of the western division the streams flow west and north-west, while in the east the slope is north-east, the drainage passing to the Mahi through its tributary the Anás. The district is well supplied with water from Ponds and Streams. The Mahi which for eighteen miles forms the west boundary of Godhra is the only large river. The Pánam on its way north to the Mahi through east Godhra is a considerable stream, at times during the rains difficult to cross. In Kálol the Karád passing west to the Mahi flows throughout the year. The Kuni in central Godhra, the Mesri to the south of Godhra town, and the Goma close by Kálol, are minor streams that take their rise in the highlands west of the Pánam valley and after courses of nearly fifty miles fall into the Mahi. The Vishvámitri from Pávágadh and the Dev Nadi from Báriya flow south and west, the Vishvámitri falling into the Dhádhar at Pingalváda fifteen miles south of Baroda and the Dev Nadi a little higher up. In the eastern division the Anás a considerable river flowing from Málwa with a northerly course east of Dohad and Jhálod falls into the Mahi at the extreme north-east corner of the district. Of minor eastern streams are: the Damaj on which Dohad stands, the Khán, Káli, Gangári, Kanari, Barod, and the Machan which flows by Jhálod. The chief feature of the Reva Kántha is the Narbada, about ninety miles of whose course from close to the railway bridge at Broach to Hámph, ten miles above the rapids, lies within Reva Kántha limits. In the forty miles up to the sacred meeting of the Or river at Chándod the Narbada is navigable. Above Chándod for about twenty miles to the first rapid at Chudo-Mudo, with the Sankheda Mewás on the right bank and Rajpipla on the left, the river maintains much the same character as below Chándod winding between low banks of sand and shingle or massive yellow-earth cliffs piled forty to sixty feet and in places 80 to 120 feet above the fair weather water. The channel is a set of long still reaches separated by cheering rapids down which the pure pale-green water bubbles and dances over a sparkling gravel slope or dashes swirling and swelling through a deep channel close under a high sand bank. The next eleven miles from the first rapid at Chudo-Mudo to the Kál-Bhairav rocks, with Rajpipla territory on either bank, is rockier and less winding through a wilder more hilly country. Beyond Kál-Bhairav, with Rajpipla on the north and Khándesh on the south, the river winds along a rock-cut channel through the narrows of the Haran Phal or Deer Leap about four miles to the Mukri falls, where the river dashes over a rocky steep ten to fifteen feet high. For about five miles above the Mukri falls the channel passes through what seems a half-drained lake, its bed rough with masses of rock, its borders ragged with rows of crags. Above the lake-like reach follows a mile of rapid to the holy nook of Surpán on the left or Khándesh bank at the meeting of the Dev nd the Narbada. Above Surpán between Khándesh on the left bank and Chhot Udepur on the right a deep channel winding between lofty cliffs nd

PANCH MAHÁLS AND REVA KÁNTHA.

hill sides leads about ten miles to Hemph, a famous place of pilgrimage at the limit of Réva Kántha. For beauty and interest at all seasons and for coolness and health during the hot months perhaps no part of Western India owes so much to a river as the Reva Kántha owes to Mother Narbada. The Reva Kántha is without any large Ponds or Reservoirs. In the Panch Mahals the western division is well supplied with ponds, four of them in Godhra and one in Kálol of special size. Of the four Godhra Lakes that at the town of Godhra has an area of 70 acres, the second at Kánelév about two miles east of Godhra has an area of about 87 acres, the third the Orvada lake about twelve miles east of Godhra covers 110 acres and is said never to be dry, and the fourth the Shera lake about twelve miles north of Godhra is 120 acres in area. The fifth at Máláv about five miles east of Kálol, covering 133 acres, is an embanked and partly masonry built reservoir with sluices. In the eastern division the Chhaba lake at Dohad is a large reservoir with masonry walls and flights of stone steps at two ends and a masonry outlet for waste water. Jhálod and Dohad have many small ponds most of them natural but some masonry built. Of these only the largest hold water throughout the year. In the eastern division of the Panch Mahals, though black and clay Soils occur, the surface is chiefly a somewhat shallow light-red soil much mixed with gravel. The Rocks are trap, schist, limestone, millstone, grit, and in small quantities marble. In the western division, near Godhra, all the surface rocks are metamorphic, and in other places metamorphic rocks alternate with beds of quartzite sandstone. The geological survey of the south-west of the district shows two chief geological features, the great trap rock of Pávágadh and a group of semi-metamorphic beds chiefly quartz or quartzite and sandstone. The group of quartzite-sandstone beds has been traced for about twenty miles east of Pávágadh and eight miles south of Chámpáner. The other beds are mostly slates conglomerates and limestones. Some of the slate appears so fissile that it might probably be used for roofing. South of the belt of hills near Kadvál and about Jámbughoda nearly all the surface rock is granite. North-west and west of this plain, the hills of Nárukot and Dándupura consist of quartzite and conglomerate. South-west of Jámbughoda the rocks though somewhat similar in composition are more highly metamorphosed, the bedding in places being obliterated. At Másábár hill near Pepia, a spur running to the east consists of very quartzose gneiss with large rounded masses of quartz and other rocks. The range of the hills at the extremity of which is Nárúkot is formed of a fine granular quartzite sandstone. South of Nárúkot, granite and gneiss occur in the valley and in the hills to the south. At Anandpur slates and conglomerates come in. South of the Narbada the Rájpipla traps are much disturbed apparently showing that Rajpipla was a centre of volcanic action. In the south-west corner near Ratanpur is a fringe of old tertiary beds with nummulite-bearing rocks. At two places near Tuva, ten miles west of Godhra, Hot Springs occur, one in a river bed the other in a marsh. The water of the marsh springs is sacred to Máhádev and the place is adorned with a temple. Except that in the eastern division the Rains begin somewhat later the seasons are the same over the whole district. During the eight years ending 1893 the rainfall at Godhra averaged 38 inches. The Panch Mahals are richer in Minerals than other Gujarát districts. Its hills contain iron lead and talc and only the cost of carriage prevents the use of its great store of building-stone. Rich iron ore is found in the Godhra village of Pálanpur and at Jámbughoda and Sivrájpur in Nárúkot. Traces of iron smelting remain both in the Panch Mahals and in Nárúkot. Lead ore is found in Nárúkot near the iron ore and at the Khineláo lake two miles east of Godhra. Talc, of which the plates are too small to have any commercial value, is found in some of the Nárúkot hills. Of stones, sandstone, trap-quartz, coarse granite, basalt, limestone and lime-gravel are found in many parts of the district. Of the Reva Kántha states Chhota Udepur is rich in limestone, in granite, and in marble, and west Rájpipla has mounds of iron slag and the long-famed mines of agate and carnelian. Except that the east is rather bare of Trees, the Panch Mahals are well wooded. Large tracts in the centre of the western districts are covered with woodland and forest and in the west the highly-tilled fields of Kálol and parts of Hálol are shaded by rows of well-grown trees. Of the field trees the noble *mahuda* for some months of the year supplies food and drink to the Bhil and other poorer population and furnishes the towns with excellent timber. The *ráyan* or *kirni* Mimusops indica, a somewhat stunted tree in the Konkan and Dekhan, grows with the greatest freedom in beautiful clusters. Its fruit forms the chief food of the Kunbi and the other poorer classes during the hot months and its small close-set leaves give a deep and grateful shade. Its tough hard wood supplies the cultivator with his cart-wheels and the oilpresser with his mill. Of the Panch Mahal forest trees, besides the *mahuda*, the most abundant are the teak Tectona grandis and the *khákhra* Butea frondosa. The not very common *chároli* Buchanania latifolia is a specialty of the district. The teak though plentiful grows to no great size and is chiefly used for rafters and beams. The *khákhra*, seldom more than a big bush, puts forth in the hot weather gorgeous masses of scarlet flowers. A waving well-wooded country set thick with scarlet-flowering apple-trees, gives some idea of a Panch Mahals landscape during the *khákhra* season. The graceful *nim* Melia indica, prized more for its shade than its wood, besides in towns and villages is found in the forests. Except when planted on the roadsides the *babúl* Acacia arabica does not grow in the Panch Mahals. The bamboo Bambusa arundinacea, though not large is plentiful and in several parts of the district once formed large forests. Of shrubs, the custard apple Anona squamosa, said to be a foreigner, grows wild but does not bear eatable fruit. The gaudiest Panch Mahals shrub is perhaps the *ceal* Cassia auriculata, whose handsome yellow flowers make many a waste look like an English gorse-clad common. The feathery Tamarix ericoides, well-known on English sea-sides, grows commonly in the beds and on the banks of rivers. The Panch Mahals Forests (197 square miles) are chiefly confined to the centre of the district. The west though well-wooded has few forests and the east is bare of timber. The central Godhra woodlands stretch over waving plains and clothe the sides of small granite hills. The Hálol forests cover the plains, rocky uplands, and lower slopes of the Pávágadh hill. In the Reva Kántha states the chief forests are in Rajpipla and Bariya. Of domestic Animals sheep and goats are plentiful. In the eastern district they are poor, leggy, and bony, but in the Panch Mahals as well as in Balasinor, Lunavada, Sunth, and Bariya they are better bred and yield fairly close and fine wool. They are reared by Rabaris Bhadwáds and Kamalias, wandering herdsmen, who, besides selling clarified butter wool and blankets, export the sheep from the north-west of the district to Nimach and Mhow and from the south-west to Baroda. Every year after October camelmen called Raykás or Raváris from Meywar and Malwa bring camels to graze in Kálol, Hálol, Lunávada, Sunth, and Bariya. As late as the seventeenth century (A.C. 1616-1645) the Dohad forests were so famous for their wild elephants that in 1616 the Emperor Jahángir (A.C. 1605 - 1627) came to Gujarát expressly to hunt them. In the Rajpipla forests wild elephants continued to be hunted for nearly a century longer. Twenty years ago, though all traces of elephants had passed away, the Panch Mahals and Reva Kántha besides of the deer and other smaller animals, was the resort of tigers panthers and bears. Panthers are still not uncommon but tigers and bears are now scarce. In the Rajpipla forests tigers panthers and bears are still common and the bison is found in Ságbára in the extreme south-east. The birds of the Reva Kántha and Panch Mahals differ little from those of Kaira. In the large rivers the alligator is common and in the Narbada is sometimes dangerous. The chief fish of the larger rivers are the *mahsir*, *marel*, *palva*, *boi*, *dangri*, *roi*, *surmai*, and *singa*. The Panch Mahals and the Reva Kántha states have a great variety of Soil. In the north-west of Godhra near the Mahi is some alluvial land, south of this a belt of dull black, and beyond the black a large tract of light soil. To the north and north-east of Godhra, a rich medium black bears heavy crops of wheat and gram. Except in the black-soil south and in a few villages of dark clayey medium the Kálol soil is throughout light. From the abundance of water

the soil of the eastern division both light and black is of high quality. The light soil with a number of varieties yields two, and if watered, three crops a year. Within Reva Kántha limits, Lunávada and Bálásinor in the north have light-brown or *gorádu* soil, Báriyá in the centre black and brown, and the Pándu Mewás in the west and much of Rájpipla in the south rich black cotton soil. During the eight years ending 1893 the rainfall at Rájpipla averaged 38 inches. Among the Crops both in the Reva Kántha and in the Panch Mahále, maize *makái* Zea mays the staple local food-grain holds the first place, *bájri* millet Penicillaria spicata holds the second, and rice *dángar* Oryza sativa the third. Wheat *ghau* Triticum æstivum is a leading and increasing cold weather product. Sugarcane *sardi* Saccharum officinarum is grown in small quantities in Godhra and Kalol, but is neither so rich in juice nor quality as in Kaira. *Nágli* Eleusine coracana, and *juwár* Sorghum vulgare, are grown in the western sub-divisions. Of pulses gram *chana* Cicer arietinum is a favourite cold weather crop. Of oilseeds *til* Sesamum indicum is largely grown. Bombay hemp *san* Crotalaria juncea is grown chiefly in black soil by all classes of husbandmen. Chillies, onions, cucumbers, gourds, melons, pumpkins, and other garden produce are raised in river-bank fields, and both potatoes and tobacco have of late been successfully grown.

BROACH.

Broach, lying between 21° 25′ 45″ and 22° 15′ 16″ north latitude and 72° 34′ 19″ and 73° 12′ 15″ east longitude, has an area of 1,463 square miles, a population of 341,490, and a realisable land revenue of about Rs. 36,11,684. On the north the river Mahi separates Broach from Cambay and the district of Kaira, on the east Broach borders on the territories of His Highness the Gáikwár and the state of Rájpipla, on the south the river Kim cuts it off from the district of Surat, and along the whole of the west it is washed by the gulf of Cambay. For administrative purposes Broach is distributed over the five sub-divisions of Jámbusar, A'mod, Vágra, Broach, and Anklesvar. The lands of the district which slope gently west to the gulf of Cambay form an alluvial plain fifty-four miles from north to south and in breadth spreading from thirty miles in the north to over forty miles and again narrowing southwards to twenty miles. The rivers Dhádhar and Narbada divide the district into three sections, Jambusar between the Mahi and Dhádhar; A'mod Vágra and Broach between the Dhádhar and Narbada; and Anklesvar between the Narbada and Kim. As regards character and appearance the Broach plain consists of three belts running mainly parallel to the gulf of Cambay. The first, the coast strip, is a narrow belt of sand; the second is a low salt waste; the third beyond the reach of tidal waters is a rich well-cultivated plain. The coast strip is a good pasture land for herds of deer and flocks of sheep. It is dotted with little tree-clothed hills cultivated and protected by hedges. Among and behind the sand hills lies a salt waste during the rains brightened with patches of salt grass and in the hot months a bleak dust-swept desert. Beyond the influence of the tidal lagoons the less bitter soil is, after the rains, a green stretch of wheat, till, in early March, the ripening grain draws flocks of crane and herds of antelope, and, when the busy harvest time is over, it passes into a lifeless waste. Further inland the soil becomes richer and the water sweeter and more plentiful. Though still treeless, the monotony of the level is broken by groups of tree-sheltered villages. Still even in the best of the black-soil villages a month or two before the rains the country is most bleak, the ponds dry, and the parched earth bare, baked, and seamed by the scorching sun. Though about nine-tenths of the Broach plain is black cotton soil, in the north-east where Jambusar borders on Kaira and Baroda, on the right bank of the Narbada estuary along the margin of the river near the town of Broach, and in the extreme south-west below Hánsot are woody well-hedged oases of light soil. The chief Rivers of Broach are the Mahi, Dhádhar, Narbada, and Kim. Besides the Mahi which forms its northern and the Kim which forms its southern boundary, Broach is crossed by the Dhádhar running east to west about twenty miles south of the Mahi, and between the Dhádhar and the Kim by the broad and sacred waters of the Narbada. Since the days when their silt built up the plain of Broach, these rivers have changed from depositing to denuding streams, wearing away the clays and the gravel, carving deep channels through alluvial deposits, and seaming the land near their banks into a net-work of ravines. Their high banks prevent the waters of the Broach rivers being used for irrigation, and, except the Narbada and for a short distance the Dhádhar, none of them are navigable. The Dhádhar rises behind Champaner, and with a course of seventy miles and a drainage area estimated at 1,850 square miles falls into the gulf of Cambay. About 30 miles north-west of Broach, the Narbada, or Reva, the chief river of Gujarát, has a course of seven to eight hundred miles, a drainage area estimated at 36,400 square miles, and in times of maximum flood a discharge of about two and a half million feet a second. To hold the waters brought by the Narbada during a thirty-inch or average rainy season would require a lake 324 square miles in area, and one hundred feet deep, that is upwards of one-eighth part of the capacity of the gulf of Cambay. The hill of Amarkantak in the Bilsapur district of the Central Provinces, the source of the Narbada, is 3,500 feet above the sea. After descending from the hills, for about 500 miles the river stretches west between the Vindhya range on the right and the Satpuda hills on the left. During its course westward the Narbada passes through five stages. The first from its rise in Amarkantak to its fall about nine miles below Jabalpur into the deep-cut channel of the marble rocks; the second a great basin, supposed to have once been a lake, stretching nearly two hundred miles from Jabalpur to Handia; the third from Handia to Haranfal about a hundred and eighty miles, where the river begins to force its way from the tableland of Málwa to the lowlands of Gujarát; the fourth, eighty miles from the Málwa Haranfal to Mukri the scene of the last fall; and the fifth, the passage of a hundred miles across Gujarát to the gulf of Cambay. The influence of the tides is felt as far up the Narbada as Rájyanpur about twenty-five miles above Broach, where the rise is said not to exceed a span. The Kim, with a course of seventy miles and a drainage area estimated at 700 square miles, rising in the Rájpipla hills, falls into the gulf of Cambay about ten miles south of the estuary of the Narbada. The high banks of the Broach rivers make its drainage depend on Creeks and Backwaters. These backwaters and creeks run inland either directly from the coast line or from the banks of rivers below the line of tidal influence. Of the salt water creeks or backwaters the three most important are: the Mota, breaking off from the Dhádhar about six miles west of A'mod; the Bhukhi, running inland from the right bank of the Narbada about fifteen miles west of the town of Broach; and the Wáno, an inlet from the gulf of Cambay about eight miles north of the mouth of the Kim river. The backwater known at its mouth as the Mota becomes about three miles further up the Achhod creek and after five miles more the Nahier creek. The Bhukhi backwater drains the Broach sub-division, and the Wáno drains central Anklesvar. Except in one or two places near the south, the Broach plain from the sea to about twenty miles inland is unbroken by rocks. Inland from the coast-fringe of blown sand hills the plain is covered with alluvial clays passing at the surface into a highly fertile black-cotton soil. Gravels and clays of the nummulitic series first appear from beneath the alluvium, and from under these, a little inland, the traps crop out. The alluvium of the plain is formed of conglomerates gravels and sands and near the surface of nodular limestone containing brown clay. This clay standing in cliffs along the main river-banks and seamed into deep side-ravines lies frequently over large areas either perfectly horizontal or slightly waved by the scouring of floods. Except in the south branch of the Kim river, where is an outcrop of ferruginous sandstone, the first rock to appear eastward is trap resting upon laterite. Occasional showers fall in December and January. But as a rule the whole supply of Rain comes between June and October. During the eight years ending 1893 the rainfall at Broach averaged 38 inches. From October to December the rainfall is supplemented

BROACH.

by heavy dews and is said to be sufficient for the flat, absorbent, imperfectly drained black-soil of the Broach plain. The climate is as healthy as that of any other part of Gujarát and pleasanter than some of the more inland climates. In December January and February the mornings are sometimes chill even to freezing after a season of heavy rainfall. The heat is greatest during the latter days of March and the month of April. During May and June near the sea a steady south-westerly breeze tempers the heat. . In October the easterly inds again set in, but after a few weeks lose their strength. Conglomerate and limestone are the only Mineral products of Broach. It is remarkable that a district without forest, even bare of trees, should contain what is, at least what was the largest tree in Western India. This is the Kabir Bar or Kabir's banian in an island about twelve miles up the Narbada from Broach. Since 1819 when it covered three or four acres the tree has decayed and the island has become a thorn-brake out of which stand isolated fragments of the great ruined banian grove. The Soils of Broach belong to the two main classes of light and black. Among the Crops cotton holds the first place, Indian millet *juwár* the second, wheat the third, rice the fourth, and millet *bájri* the fifth. One of the most profitable crops is tobacco grown without irrigation, and in some villages on the Mahi and Narbada hemp yields a good return. The chief domestic Animals are cows and oxen, buffaloes, horses, asses, sheep, and goats. Owing to scanty fodder the cattle are of inferior quality. The best buffaloes come from Nadiád Borsad and A'nand in Kaira, the best bullocks from north Gujarát, and the best cows from Káthiáwár. Broach is no breeding-place for horses, and except some bred by Girásiás and landowners, the best horses of the district hardly rank above ponies. Asses are kept by potters and rice-huskers or Golas. The belt of sandy soil along the coast is the only pasture ground for sheep. Goats are kept by Musalmáns for their milk and flesh. The chief wild animals are the wild hog whose number the increase of tillage has of late greatly reduced. The wolf is found in the salt plains in the south-west of the Jambusar sub-division. Antelope, the chief game of the district, abounds in the northern sub-divisions and on the grass-covered knolls and hillocks in the Rájpipla limits not far from the Broach boundary. Hares are plentiful. Of domestic fowl there are hens of two kinds, ducks turkeys and tame peacocks. Though less rich in game birds than north Gujarát, wildfowl are more lentiful in Broach than in Surat. The chief varieties are: the florican, the sand grouse, the partridge, the quail, the blackbacked goose, duck, snipe, curlew, plover, and crane. The rivers abound with fresh-water salt-water and migratory fish. The fisheries are of three sorts: local, sea fisheries, and monsoon fisheries, and a considerable trade is done in salted fish.

SURAT.

Surat, lying between 20° 15′ 0″ and 21° 28′ 0″ north latitude and 72° 38′ 0″ and 73° 30′ 30″ east longitude, has an area of 1,653 square miles, a population of 649,989, and a gross yearly revenue of about Rs. 6,49,989. The district includes, for descriptive as well as for administrative purposes, the states of Dharampor and Bánsda in the south-east and in the centre nineteen Sachin villages with an area of forty-two square miles, a population of 19,337, and a gross yearly revenue of Rs. 2,15,048. The Sachin villages differ in no respect from the Surat villages of the Chorási sub-division and the Navsári villages of His Highness the Gáikwár's southern division by which they are enclosed. The lands of Dharampúr with an area of 794 square miles, a population of 120,498, and a gross yearly revenue of Rs. 3,90,841, and Bánsda with an area of 215 square miles, a population of 41,373, and a gross yearly revenue of Rs. 3,47,451, are the older and rougher easterly continuation of the eastern lands of the Chikhli Balsár and Párdi sub-divisions. They spread east far into the Sahyádris and are mainly composed of forests and hills with a poor population almost entirely belonging to the early forest tribes locally known as *Káliparaj* or *praja*, meaning Black People. The lands of Surat stretch about eighty miles along the shore of the Arabian sea, from the Kim river south to the Daman Ganga. On the north a line following for about forty miles the course of the Kim, and then passing eastwards for fifty miles till it ends in one of the southern spurs of the Rájpipla hills, separates Surat from Broach and the Gáikwár's sub-division of Wasrávi. The eastern boundary at its northern extremity leaving Rájpipla to the left runs south to the Tápti, where, after a short turn westwards along the left bank of the river, it again runs south, leaving Gáikwár territory to the left. Here a belt of Baroda land cuts westwards into the Surat district. But again beyond this break, keeping Bánsda and Dharampúr to the left, the Surat boundary passes south, drawing gradually westwards until at the extreme south of the district it approaches within fifteen miles of the sea. Leaving the Portuguese possessions of Daman, and the district of Thána to the south, the boundary line turns north and runs along the shore of the Arabian sea till it reaches the estuary of the Kim. Not the whole area included within the above boundaries belongs to Surat. One belt of land about fifteen miles broad, running north to south, and a second belt of about the same breadth crossing it east to west, divides the district into three sections. Of these the north-west section, about twenty-five miles long by twenty broad, consists of the rich alluvial lands on either side of the estuary of the Tápti; the second about thirty miles long and five to twenty broad, forms the north-east corner of the district; the third twenty-five miles long and fifteen to twenty broad, comprises the south of the Surat plain hemmed in along the east by the Bánsda and Dharampúr hills. Except the north-eastern division each of these tracts contains native territory, Baroda villages in the north-west and Sachin villages south of Surat city and an eight-mile strip of Gáikwár territory in the south. For administrative purposes Surat is distributed over eight sub-divisions, Olpád, Mándvi, Chorási, Bárdoli, Jaláipúr, Chikhli, Balsár, and Párdi. Surat is an alluvial plain stretching eighty miles north to south and sloping gradually from the eastern highlands to the shores of the Arabian sea. Along the delta of the Tápti the plain stretches about thirty miles from east to west. Further south the great rugged meeting of the Sátpudás and the Sahyádris narrows the plain land till in the extreme south it tapers to a strip not more than fifteen miles broad. As it narrows the land changes from the smooth rich alluvial of the Tápti to rocky uplands and poor torrent-gashed hollows. In all but the narrow south the plain passes from west to east through three stages: Along the sea a barren stretch of salt marsh and sand drift, behind the sand and the salt marsh rich highly cultivated fields, and east of the rich lands a poorer opener tract rising gradually into hill and forest. Undulating sharply or rising in widespread uplands, the elevation of the surface of the district in no place averages more than 150 feet. Chains of flat-topped hills, 200 to 300 feet high, outliers from the Sahyádris, starting from Tadkesar on the right bank of the Tapti, stretch northwards towards the Rájpipla finish of the Sátpudás. South of the Tapti, a number of highlands running north-east from the Sahyádri mountains to the left bank of the Tapti separate the plains of Surat and Khándesh. Further south the Sahyádris broaden westwards till their summits come within sight, and the plain, nearly across to the coast is roughened by their spurs and outliers. Besides by the eastern highlands the plain is broken by isolated peaks from fifty to six hundred feet high. Of these one, four miles from Mota, fifteen miles east of Surat, rises a hundred feet above the plain. In the south, twenty-two miles north of Daman and six from the coast, a group of small hills, fifty to eighty feet high, give their name to the village of Dungri. Twelve miles further south the hill-fort of Párner rises about five hundred feet above the plain. And about five miles further the ruined fort of Párdi built, it is said, by the Portuguese, stands on a slight eminence. A rocky continuation of the Párdi hill crops up at intervals southwards to the Daman coast. Six miles to the south of Pardi on the right bank of the Kolak river rises the small hill, topped by the fort of Bagwada, and near it two saddle-back ridges, each about 420 feet high. Except in the north the

Kim, with a course of seventy miles and a drainage area estimated at 700 square miles, and the Tapti or Tápi, with a course of about 450 miles and a drainage area of about 30,000 miles, Surat has no river of any size. The southern streams, the Mindkola, the Purna, the Ambika, the Auranga, the Pár, the Kolak, and the Damanganga, rising in the eastern highlands, flow westwards over broad rocky beds swollen torrents in the rains and a chain of deep pools in the dry weather. At the limit of the tide about ten miles from the coast navigable by fifty-ton boats they turn into estuaries whose mouths form excellent fair-weather harbours. Of Creeks, the northernmost formed by the Sina river has on its right bank, about four miles from the coast, the harbour of Bhagwa. Near the south of Olpád, about eight miles north of the Tápti mouth, the Tena creek passes for about eight miles inland. Four miles north of the Ambika in the west of Jalálpur is the large inlet known as the Kanái creek. And in the south the Kothal creek runs between the Pár and the Kolak. The district contains no natural Lake, and, except the Pálan reservoir covering 153 acres, the numerous ponds are small, most of them dry by March. Three Geological formations occur within the Surat limits. Of these the lowest is the infra-tertiary represented by trap, the middle is the tertiary represented by gravel conglomerates sandstone and limestone with and without nummulites, and the highest is the recent represented by cotton soil and river-beds. In the matter of Climate Surat may be divided into two parts: an eight to ten mile belt within the influence of the sea-breeze of equable temperature and moderate rainfall and an inland tract subject to great variations of heat and cold and to a heavy rainfall. During the eight years ending 1893 the rainfall at Surat averaged 47 inches. From December to February the winds, though changeable, blow generally from the north-east. From March to May these winds grow hotter and in the afternoons give place to a western sea-breeze. May is the hottest month in the year, and, except in the towns, the healthiest. From June to September westerly winds prevail. They lose force in September, and, in October, the stillness and the heat make the climate unpleasant and unhealthy. In November with the return of the north-eastern winds the climate grows colder. With so large an area of hills and rocks Surat is well supplied with building stone. Iron stone is said to be found in Balsár and Párdi and in the Mándvi sub-division. Though of the industry no trace remains, specimens of native slag have been picked up. The metallic sand which is used for drying up ink gathers at the mouths of all the rivers. Of Trees the toddy-yielding wild date Phœnix sylvestris grows over the whole district. And near village sites there are groves of the mango which in some Surat gardens in flavour and sweetness approaches the Bombay Alfonso and Peiri. The *bawal* Acacia arabica grows freely in grass lands. Though, on the whole well wooded, the Surat district does not contain much revenue-yielding forest. The Surat Forest area (1893) is 66 square miles all of it reserved forest. A few hills and some land in the south are covered with teak coppice. In the Chikhli sub-division an area of 809 acres, with a natural growth of teak, has been set apart as a forest reserve. A rough hilly tract in the east and north-east of the Mándvi sub-division is the only area suitable for forests. The domestic Animals are oxen, cows, buffaloes, horses, sheep, goats, and asses. Of oxen the indigenous middle-sized breed called *Talaba* is used for agricultural purposes. North Gujarát traders bring droves of large muscular oxen which are purchased by better class cultivators and by townsmen for their carriages. Cows and buffaloes of Chorási Olpád and Jalálpur are much esteemed, the cows for the neatness of their forms, the buffaloes as milkers. Surat is also famous for a diminutive breed of bullocks called *Genia* used for driving, singly or in pairs. There is no good breed of horses. The Balsár sub-division is famous for its breed of *Patiri* goats which are good milkers and are highly prized in Bombay. To the breeding of sheep little care is given. Asses are kept by potters and by Golás or rice-huskers. The chief wild animals are the tiger, the panther, the black bear, the wild boar, the wolf, the hyæna, the jackal, and the fox. Of deer the *sámbar*, the spotted, and the four-horned deer are found in the Mándvi sub-division. The antelope has been on the increase and occurs all over the district. Of domestic fowls hens and ducks are reared by Musalmáns and Párais, and of wildfowl the spurwinged goose and many kinds of wild duck, the snipe, the Indian bustard, the lesser florican, partridge, quail, grouse, peafowl, junglefowl, and the demoiselle crane, are found; but the district does not offer the plenty and variety of small game that is obtained in north Gujarát. Though there are no regular fisheries the rivers are well stocked and a considerable trade is done in salted fish. Agriculture, the most important industry of the district, supports 55·18 of the population. The Soil belongs to three chief classes, each including several varieties. The three chief classes are the black or cotton soil, the light, and the *besar* uniting the qualities of the black and light soils. The black soil, producing the most luxuriant crops in rapid succession, is common in the Olpád the Chikhli and the Párdi sub-divisions. The light soil is commonest on the banks of the Tápti the Ambika and the Auranga rivers. Patches of the *besar*, considered good and fairly productive, are found over almost the whole district. Two special varieties also require notice, the coast marshes, and, in Párdi, a soil more like the Konkan than Gujarát. Among Surat Crops, rice holds the first place, millet *juwár* Holcus sorghum the second, cotton the third, *kodra* Paspalum scrobiculatum and *náglí* Eleusine coracana the fourth. Sugarcane is the staple produce of the garden lands chiefly of the Jalálpur and Balsár sub-divisions, and in the southern portion of the district the castor-oil plant is very extensively cultivated. Millet *bájri* Holcus spicatus, which belongs to a drier climate, is little raised. Of pulses *wál* Dolichos lablab and *watána* Pisum sativum are extensively produced.

South Baroda.—Intermixed with Surat are the villages of the southern or Navsári division of Baroda (1,940 square miles; 287,549 (1881) people; Rs. 19,60,662 (1879-80) revenue). In the north between the Kim and the Tápti the villages of this southern division are in the east woody and hilly and in the west are as rich and well tilled as Anklesvar or Olpád. South of the Tápti the seaside sub-divisions have the character of the coast line and of the fertile central belt of the Surat country. The inland sub-divisions for the most part are poor undulating lands interspersed with tracts of forest. To the north and north-east of Navsári the country is thickly wooded; Gandevi and Navsári are garden lands, rich in fruits vegetables and sugarcane; while eastwards the plain gradually passes into forests hill and dale. The people of the division are not less varied than its aspect. North of the Tápti the sturdy and enterprising Sunni Bohora cultivates and trades with the Mauritius and Rangoon. In the south the intelligent Pársi builds houses and lays out gardens. And in the forest and hilly east the people are the wild and timid forest tribes locally known as the *Káliprajа* or black-folk. SOUTH BARODA.

Khándesh, between 20° 8′ and 22° 7′ north latitude and 73° 42′ and 76° 28′ east longitude, has an area of 10,907 square miles, a population of 1,460,851, and a realisable land revenue of about Rs. 41,70,103. Khándesh stretches along both banks of the Tápti which runs through the district from east to west. The district is bounded on the north by the Sátpuda hills; on the east by the Central Provinces and the Berár; on the south it is divided from the Nizám's territories by the Ajanta KHÁNDESH.

KHÁNDESH.

or Sátmála hills; and on the south-west from Násik by the smaller Arva and Galna ranges. As far north as the Tápti the western boundary of the district is formed by a spur of the Sahyádris which crossing the Tápti and skirting the Akráni states continues north to the Narbada. For administrative purposes Khándesh is distributed over sixteen sub-divisions, Amalner, Bhusával, Chálisgaon, Chopda, Dhulia, Erandol, Jámner, Nandurbár, Nasirábád, Páchora, Pimpalner, Sávda, Sháhada, Shirpur, Taloda, and Virdel. With Khándesh, on the west and north-west, are associated three groups of petty states, the Dángs, the Mewás (1,623 square miles, 59,055 people, Rs. 1,30,000 revenue), and the Surgána state (360 square miles, 12,398 people, Rs. 19,116 revenue). The political control of the last mentioned district rests with the Collector of Násik. Of these states the Dángs or hill-lands, with an extreme length from north to south of fifty-two and a breadth from east to west of twenty-eight miles, is, with the exception of some huge fantastic pinnacles in the main Sahyádri line to the east and south, a mass of steep, wooded, flat-topped hills. The steep sides and narrow valleys of the lower ranges are clad with forest. In the west or lower Dángs the valleys and ravine-sides are so densely wooded that the hamlets and tillage lie on the open flat-topped spurs and ridges. The Mewás group, consisting of the six petty states of Chikhli Gawháli Káthi Singpur Nál and Navalpur, lies in the extreme west of Khándesh, partly in the western extremities of the Sátpudás and partly on the low ground below the hills. This well-watered land is broken wild and more or less forest covered. Surgána in the south-west corner of Khándesh is full of spurs of hills and waving uplands once covered with dense forests, now partly cleared and stripped of most of the valuable timber. Spreading eastwards from these wild western states Khándesh forms a low upland basin with a westerly slope draining into the Tápti. The district includes most varied tracts of country, wild hill and forest, rich garden and grove, barren plain and rolling rocky hills. Three well-marked belts run east to west parallel with the Tapti. The first and northmost consists of the wild and high Sátpuda region, the second and central is the rich Tápti valley, and the southern and south-western the bare ridges and rich well-watered valleys flanked on the south by the Ajanta and on the west by the Sahyádri hills. The portion of the central belt on both sides of the high and bare Tapti banks is seamed by tributary streams. At intervals the Sátpudás throw out from the north spurs that reach close to the river and beyond the river rise again in low barren hill ranges. Except for these cross-ridges and uplands the central plain from Burhánpur to Nandurbár is a stretch of deep alluvial soil. The well-tilled eastern and central parts abound in large and prosperous towns and villages surrounded by mango groves and gardens, and, except in the hot season, by green fields of varied tillage. In the west though the soil is rich the large area of forest and brushwood makes the climate unhealthy. The northern belt consists of the twenty to thirty miles of spurs and uplands between the Tápti plain on the south and the steep southern face of the Sátpudás on the north. Though it has now only a few scattered Bhil hamlets, the remains of villages and sugar mills in the forest table-land of Pál Tappa, fourteen miles north-west of Ráver, and, further west, the brushwood-covered ruins of Amba show that this was once a well-peopled tract. The north-western cool waving uplands of Akráni are well-tilled and thriving, peopled by prosperous Pávrás living in homesteads, each in its plot of field sheltered by mhowra and mango groves. The southern belt is more varied. In the extreme east, between the Hátti hills on the east and broken rolling ground on the west stretches the partly waste and bush-covered Purna valley. Further west rise the low thorny uplands and between the uplands the rich valleys studded with large villages and mango groves drained by the Vághur Girna and Bori. The rich valleys of the Pánjhra the Ráo and the Borá open east across the plain separated by quaintly-cut hill ranges. Though cool and pleasant, the extreme west is wild and hilly, its climate except in the hot season feverish, and its people poor and unsettled. Khándesh has four chief Hill Ranges, the Sátpudás in the north, the Hátti hills in the south-east, the Ajanta or Sátmála range in the south, and the Sahyádris in the west. The Sátpudás is a broad belt of mountain land stretching in a wall-like line along the north bank of the Tapti, and from a height of 2,000 feet at the central crest sloping gradually north to the Narbada. The grandest hill in the range about twenty miles south of Sultánpore is Turanmál, a rather narrow strip of table-land 3,300 feet high and sixteen square miles in area, once the seat of the Málwa rulers of Mándu, of whom traces remain in a large and beautiful lake and several Jain and Bráhman temples. The Hátti hills bounding the Purna valley on the east run north-west and south-east. They rise to nearly 4,000 feet and finally merge in the Nágpur hills. Within Khándesh limits their sides are in places sufficiently covered with brushwood and timber to shelter bears panthers and tigers. The Sátmála or Ajanta range, breaking from the Sahyádris in the north-west of Násik, runs east in a series of strange basalt pinnacles. Then after a gentle depression near Mánmád it again rises about 600 feet above the plain, and skirting the south of Khándesh for about eighty miles to a few miles east of Ajanta, turns south and merges into the southern highlands of Berár. The bare slopes of the Sátmálás were formerly skirted by a belt of wasteland many miles broad, but during the last twenty years tillage has spread to the sides of many of their northern spurs. The Sátmálas are interesting as containing the Shringir-Chauri caves in the deserted valley of Pátna ten miles south-west of Chálisgaon, and, about thirty miles east, the famous painted Buddhist rock-temples and monasteries of Ajanta. The Sahyádris, bounding the south-west corner of Khándesh, at the northern extremity of the range turn sharply to the east leaving the broad Tápti plain between them and the Sátpudás. They have no well-marked peaks within Khándesh limits. The chief feature of the district, the line to which almost the whole of its surface drains, is the river Tápti. With a course of 450 miles and a drainage area of about 30,000 square miles, the Tápti, flowing west from the Central Indian highlands, falls into the gulf of Cambay near Surat. The present entrance of the Tápti into Khándesh is said to be a new channel. According to local accounts the river once flowed further north along a deep gully which may still be traced. For its first 150 miles in Khándesh the valley of the Tapti is flat and well-tilled. At Prakásha in the west of Sháhada the forest begins and villages and fields grow fewer. Ten miles further west at Kukarmuda and during the ten remaining miles spurs from the Sahyádris and Sátpudás stretching close to the river form banks in places 200 feet high. Over three or four miles of this tract, almost to a line drawn from the Tápti south to Nandurbár, patchy tillage has lately spread. West of this the country is a thick forest full of wild beasts, and, except for small clusters of Bhil huts, uninhabited. After passing for about fifteen miles south-west through Gáikwár territory, the Tápti again for seven miles forms the boundary of Pimpalner. The river of Khándesh next in importance to the Tápti is the Narbada, which for about forty-five miles skirts the north-west corner of the district. Its chief connection with Khándesh is that it has sometimes been found useful in carrying timber to the coast. All the varieties of Soil that come under the three orders, black red and stony, are found within Khándesh limits. The central belt of the Tápti valley consists either of loam or of a black alluvial clay. This deposit soil of unsurpassed richness yields wheat year after year without manure or change of crop. Skirting this rich tract the soil along the base of the Sátpudás is inferior. On the south-east, red soil, including brown and gray, predominates with patches of coarse black overlying trap, deteriorating towards the south-west where it is found of less depth and much mixed with lime nodules. As far outh as the Tápti to which the special geological survey of Khándesh has been limited, the area of varying breadth between the Tápti and the Sátpudás is chiefly covered by alluvium. The only other formation is trap, which forms the hills. The Sátpuda streams have no infra-trappean pebbles. As trap rocks rise in many places to the south of the Tápti, this formation sometime occurs in the bed of the river. Besides the alluvium and the

trap a fossilless limestone occurs about five miles from Burhánpur. At one end of this outcrop of limestone an upright white sandstone rock like decomposed gneiss is a portion of an infra-trappean formation brought up by a dyke or a lava upflow. South of the Tápti, especially in the range separating Khándesh from Násik, the columnar structure of the rocks is peculiar. The hilly portions are covered with a stratum of dark basalt containing traces of felspar hornblende and iron ore. Khándesh has four Hot Springs, three in Chopda and one in Shirpur. The Khándesh Seasons are the rainy months from the middle of June to the middle of October, the cold months from the middle of October to the middle of February, and the hot months from the middle of February to the middle of June. From the variety of height position and character the climate varies greatly in different parts of the district. Among the western hills and forests and in the Sátpudás the rainfall is heavy, but over much of the centre and the south it is scanty and insufficient. During the eight years ending 1893, the rainfall at Dhulia averaged 26 inches. Except when cloudy the cold season is bracing and pleasant. During the hot months the air is extremely dry. In the east burning winds blow far into the night, the south and west are cooler, and the western uplands and valleys, not less than 1,500 feet above the sea, have in the hottest weather cool and refreshing nights. As regards the general population the hot weather is the healthiest and the cold the most unhealthy season. Except trap for road metal, *kankar* or nodular limestone, gravel and clay, Khándesh has little Mineral wealth. Khándesh is one of the leading Forest districts in the Presidency. Its Government reserves stretch over 1,899 square miles or 18 per cent of the entire area. Of domestic Animals, except the Kilhári herd or cattle of west Khándesh which are prized all over the Dekhan Khándesh possesses no breed of special excellence. Up to the seventeenth century the hilly tracts to the north of the district were a great breeding ground for wild elephants. The tiger Felis tigris, which up to 1862 roamed and destroyed in the very heart of the district, is now no longer found in the plains. In the hills tigers bears and panthers are still not uncommon. Of rare beasts of prey the lynx Felis caracal is occasionally found in the Khándesh hills. Agriculture, the most important industry of the district, supports about one-half of the population. The Khándesh Soils are composed of all grades from the deep rich black of the Tápti valley to the poor stony red and white of the low trap ranges. The local husbandmen divide it into four classes: *káli* black, *pándri* white, *kharán* salt, and *burki* white and salt. Of Khándesh Crops Indian millet *jrári* Sorghum vulgare holds the first place, spiked millet *bájri* Penicillaria spicata the second, wheat *gahu* Triticum æstivum the third, and rice Oryza sativa the fourth. Of pulses, gram Cicer arietinum, *tur* Cajanus indicus, peas Pisum sativum, *udad* Phaseolus mungo, and *mung* Phaseolus radiatus, are also grown. Of oil-plants are sesame, linseed, mustard, safflower, the earth-nut, and the castor plant; and of fibres, cotton long one of the chief of Khándesh crops, brown hemp, and Bombay hemp less widely grown than brown hemp. Of dyes are the Indian madder or *al*, indigo, and turmeric. Tobacco forms a small crop. Of sugarcane Khándesh produces five varieties and has a large area devoted to its growth. Chillies Capsicum frutescens, forming part of the people's food, are also extensively grown, as are brinjals sweet potatoes and other garden produce. The cultivation of the betel vine Piper betel, a common industry, is carried on with astonishing success in the garden lands of Khándesh.

Na'sik, between 19° 33′ and 20° 53′ north latitude and 73° 16′ and 75° 6′ east longitude, has an area of 5,940 square miles, a population of 843,582, and a realisable land revenue of about Rs. 18,04,027. It is bounded on the north by the Dángs and the Khándesh district, on the east by Khándesh and the Nizám's territory, on the south by Ahmednagar, and on the west by Thána. For administrative purposes Násik is distributed over twelve sub-divisions, Málegaon, Nándgaon, Yeola, Niphád, Sinnar, Igatpuri, Násik, Peint, Dindori, Kalvan, Báglán, and Chándor. Except the rugged low-lying half-Konkan Peint in the extreme west Násik is the northern portion of the Dekhan plain sloping from about 2,000 feet near the Sahyádris east to a level of about 1,300 feet. One natural division of the district is into the valleys of the Girna and of the Godávari to the north and south of the Sátmála or Ajanta range. A second less clearly marked division runs north and south, separating the Dáng or western hill tract from the Desh or open eastern plain. The Násik Dáng tract, stretching eastward from the Sahyádris, is composed throughout of rough hilly ground seamed by torrents and with valleys which gradually grow smoother and opener as they approach the Desh plains. In Báglán, north of the Sátmálarange, the land crowded with high hills separated by short narrow valleys has an abundance of streams with banks covered with gardens or mango orchards, and the hill sides, bare of trees, but so rich in fodder that they form the chief grazing ground in the district. In the east and north-east, though one or two upland tracts partake of the nature of the Dáng, the soil is poor and light, and the surface cut with deep stream beds is in the untilled parts covered with a stunted growth of *anjan* Hardwickia binata. The Desh is an open, but, except towards the east, is not a level tract of country. The water-sheds of the smaller rivers are wider, and the country is broken by a few flat-topped isolated hills. Fertile for grain cultivation and in some parts with shady mango groves, as a rule scarcely a tree, except here and there a *pipal* shading a well, breaks the flatness of the plain. In the north and north-west the villages are tile-roofed surrounded by trees. Further east where no rafter-producing forest is at hand, the villages are low flat-roofed houses of sun-dried bricks surrounded by walls of the same material. The patches of tillage scattered over the plain country, fenced by low cactus hedges, except that they are relieved almost throughout the district by a background of mountains, are tame and monotonous. Except the Sahyádris the general direction of the Násik mountains is from west to east, the higher portions being nearer the west. In the extreme north is the Selbári range the higher points in which vary from 3,100 to 4,200 feet. Nearly parallel with these a few miles to the south is the Dolbári range varying from 3,700 to 4,700 feet, with one peak, the fort of Sáler, 5,293 feet high. The Satmála or Ajanta range with its summits visible from every part of the district forms a prominent landmark. Its chief peak Dhodap is 4,761 feet high. Several of its minor peaks are of religious and historical interest, having many forts such as Ankai-Tankai with curiously jingling names. To the north of the mass of Dhodap a low range separates Díndori from Násik. Among its summits is the once celebrated fort of Rámsej, and the conical Jain-caverned hill known as Chámbhár Lena, or the tanner's cave. South-west of Násik, Trishirsha the eastmost of a row of isolated hills, has the important Buddhist cave temples known as the Pándu Lena. Between the Anjanira range and the southern limit of the district are several detached ridges over 3,000 feet high, whose chief summits are the hill forts of Bhaula and Kávnai and the unfortified peak of Mhordan. The range that from north Báglán stretches eastwards from the Sáhyádris is the most rocky and precipitous in the district, containing Kalasubái 5,400 feet, the highest summit in the Dekhan. Almost every mountain in these ranges ends in a fort, of which perhaps the largest and best known is Patta, with its base in Násik and its summit in Ahmednagar. Násik is drained by two chief River systems, those of the Girna to the north and those of the Godávari to the south of the

NÁSIK.

NÁSIK.

Ajanta or Sátmála range. The Girna rising in the west of the district with many tributaries and much irrigation, passes into Khándesh where it turns north to meet the Tápti. The Godávari rises in the Trimbak range to the west of Násik and after entering the talukas of Násik and Niphád passes south and east to Ahmednagar and the Nizám's territories on its way to the Coromandel coast. Of west-flowing streams the Damanganga and the Vaitarna drain small portions of the hilly west on their way to the Gháts. The Geological features of Násik are simple. It forms a part of the great trap region of the Dekhan. Except certain infra-trappean sedimentary beds in the east and north-west, the whole surface is of volcanic formation, consisting of compact stratified basalts and an early trap. The westward descent to the Konkan is precipitous; the eastern slope is gradual by a series of steps. As the tabular strata of hills many miles apart lie exactly at the same height above the sea, it is surmised that the hill ranges once formed part of an immense plateau similar to the hills further south towards Sátára. A curious feature in the geology of the district is, except at the Thal pass near Igatpuri, the absence of the laterite which caps the summits of the hills further south. Some of the valleys that separate the ranges of trap hills are wide, others are narrow. The breadth of the valleys which seem too wide to have been worn by the present rivers can be explained either by volcanic convulsions and subsequent filling by the falling away of debris from the sides, or by the suggestion that the rivers that flow down their midst formerly rose much further west and that the broad plains were once many miles from the river-sources. The Climate of Násik itself and of the whole of the west of the district is the best in the Dekhan. It varies in different parts, but on the whole presents greater extremes of heat and cold in the east than in the west. In January extreme cold and in April extreme heat are experienced. During the rest of the year, constant breezes from the west and south-west equalise the temperature. During the eight years ending 1893, the rainfall at Násik averaged 30 inches. This Násik fall is a medium between an average of about 125 inches on the Sahyadris and about twenty-three inches at Yeola in the east. During the south-west monsoon, from June to October, though strong winds are experienced in the east they are unusual in the neighbourhood of Násik. Násik's only Minerals are building trap and lime nodules. Except an occasional mango grove or a patch of *bábúl* the cultivated parts of Násik are bare of trees. The Násik Forest circle with a total area of about 1,278 square miles includes three groups, the Girna the Godávari and the Peint forests. The reserves are of four chief classes: scrub-forest, teak coppice, evergreen forests, and *bábúl*. There are no special breeds of domestic Animals in Násik, nor has it any wild animals worthy of note. Agriculture supports a little more than one-half of the population. The arable land is of two classes, hill or Dángi land below or near the Sahyádris and plain or Deshi land in the open east. Four Soils are recorded, black *káli*, red *mál*, red and black *koral*, and light brown *barad*. The Crops are millet Penicillaria spicata, the staple food of the district, *gahu* wheat Triticum æstivum, Indian millet Sorghum vulgare, *nagli* Eleusine coracana, rice Oryza sativa, gram Cicer arietinum, *tur* Cajanus indicus, black gram *udad* Phaseolus mungo, peas Pisum sativum, lentils *masur* Ervum lens, green gram *mug* Phaseolus radiatus, and of oilseeds sesame and linseed. Cotton is occupying an increasing area, and tobacco of inferior quality is raised in small quantities over the whole district, and care is given to the cultivation of sugarcane. Among garden products the vine Vitis vinifera, of three varieties, has long been grown by Násik Kunbis and Mális. Guavas potatoes and groundnuts, and, in selected tracts, the betel vine are also cultivated.

AHMEDNAGAR.

Ahmednagar, between 18° 20′ and 19° 5.)′ north latitude and 73° 40′ and 75° 43′ east longitude, has an area of 6,645 square miles, a population of 888,755, and a realisable land revenue of Rs. 19,49,492. In shape resembling a standing cross with a length of 120 and a breadth of 125 miles, Ahmednagar is bounded on the north by Násik, on the north-east by the Nizám's dominions, on the south by Sholápur, on the south-west and west by Poona, and on the north-west by Thána. For administrative purposes Ahmednagar is distributed over eleven sub-divisions, Kopargaon, Nevása, Shevgaon, Nagar, Karjat, Shrigonda, Párner, Sangamner, Akola, Ráhuri, and Jámkhed. The Ahmednagar or north-west section of the elevated table-land of the Dekhan has a general slope from west to east. The west of the district abutting on the Sahyádris is the highest part of the Dekhan, averaging 2,500 feet above the sea, sloping east with a gradual fall till in the extreme east it is only 1,500 feet above sea level. The western or hilly portion of Ahmednagar, touching the Sahyádris, is a region of heavy rainfall which washes the soil of the slopes down to the valleys, where mud banks and stone walls stay its further progress and turn the bottoms into rice lands. The shallower soil of the steep hill slopes strengthened by woodish manure yields the coarser cereals. The better class villagers of the west live in houses built of baked earth and the poorer population in frail oval-shaped wattle-and-dauh huts. The transition from the hilly to the champaign country is somewhat sudden. The eastern plain is full of variety. It includes the wheat-growing alluvial lands of the Godávari valley, the less fertile Bhima valley, and the belt of bare hill and cultivated dale between the two rivers. In parts the plain is rich with mango and tamarind groves, in others it is bare of trees but rich in grain. In most parts stand out naked summits and scarped hill slopes strewn broadcast with basalt boulders or bushy with patches of stunted *khair* Acacia catechu. The type of village is throughout much the same, flat-roofed and compact, in some cases surrounded by bastioned walls of baked clay. In spite of the variety noted above, the want of trees, the ruinous village walls, and the bare hills combine to make the general aspect of the district cheerless and waste. This cheerlessness is heightened in the hot season when the removal of the crops leaves the country bare bleak and hideous. The chief Hill ranges of Ahmednagar are the Sahyádris forming a continuous wall between Thána and Ahmednagar; the Kálsubái range forming the boundary between Ahmednagar and Násik; the Báleshwar range, the water-parting between the Pravara and the Mula; and the Harishchandragad range, the water-parting between the Godávari and the Bhima. The Sahyádri mountains, viewed from the low level of the Konkan, appear a dark wall of rock, 2,000 to 3,000 feet high, relieved by horizontal belts of green bush and forest, surmounted by isolated peaks and rocky bluffs rising in places to a further height of 1,000 to 1,500 feet. Of these masses the three forts of Kulang Ratangad and Harishchandragad are the most striking. The Kálsubái range, presenting an appearance of a continuous wall of rock, has a fort with cisterns and granaries in almost every hill. The Báleshwar hill has Báleshvar (3,828) as its central mass whose summit is crowned with a ruined Hemádpanti temple. The Harishchandra range has among its chief summits Gorakhnáth (2,982) Mánjarsumba and Gunjala. At the foot of Mánjarsumba is a little glen whose secluded beauty has gained it the name of the Happy Valley. The tomb of Salábat Khán gives importance to another hill in the valley of the

AHMEDNAGAR.

Sina 900 feet above and six miles to the west of the town of Ahmednagar. Besides these leading ranges are many hills, both isolated and in long ridges, the water-sheds of streams. Of the Rivers that drain Ahmednagar the two chief are the Godávari and the Bhima, a tributary of the Krishna. The water-shed between the Godávari and Bhima is the great Sahyadri spur which branching off at Harishchandragad stretches east completely across the district. The Godávari rises near Trimbak about twenty miles south-west of Násik and after a course of 900 miles empties itself into the bay of Bengal. It is styled the Ganga or Ganges of Southern India, and is held in high veneration by the Hindus. It has many tributaries. The Bhima drains the whole of the southern portion of the district, and after a continuous south-eastern course falls into the Krishna near Raichur. Its chief tributaries are the Ghod and the Sina on whose left bank stands the town of Ahmednagar. The whole of the Ahmednagar district forms part of the great trap region of the Dekhan, precipitous in the west and descending eastwards by broad terraces. The trap rock is distinctly stratified throughout the district and the alternate beds of basalt and amygdaloid which have both a slight easterly dip preserve a striking parallelism to each other. A limestone outcrop at several places on the west side of the Kánhur plateau proves the existence of inter-trappean rocks of the cretaceous system. At Kothal in Shrigonda, on the exposed edge of a hill crowned by a temple of Khandoba, vertical and horizontal fissures detach rude columns of close-grained homogeneous basalt, eight or ten feet high and four or five feet in diameter, composed of three or four huge geometrical blocks. In the watercourses in Párner are columns of a bluish gray basalt, compact in texture, vitreous in hue, and sharp in fracture. Columns also occur in the Nagar sub-division and to the east of Párner. The basaltic dykes are all vertical and do not occasion any disturbance or dislocation of the strata through which they pass. Another distinctive feature is the occurrence of re ochreous rock underlying basalt or amygdaloid. A third feature is the occurrence of quantities of basalt stones of all sizes standing loose as if showered on the land; also masses of rocks piled into heaps as if by human labour. The Climate is on the whole genial. The cold season from November to February is dry and invigorating. A hot dry wind from the north-east then sets in lasting from March to the middle of May when sultry oppressive weather succeeds, till, with the break of the south-west monsoon about the middle of June, the climate again becomes temperate and continues agreeable till the close of the rains either in early or late October. During the eight years ending 1893 the rainfall at Ahmednagar averaged 25 inches. In the Shrigonda sub-division numerous veins of quartz and chalcedony with agates, colourless quartz, and crystals cover the ground. Coarse agates and cornelian-like stones are found in the rocky plain or table-land west of Ahmednagar city. Trap suitable for building is found all over the district. A variety of compact dark-blue basalt is worked near Ahmednagar. Limestone also occurs in large quantities. The area reserved as Forest land is 870 square miles or about 14 per cent. of the district. Of this, with the exception of Akola and part of Sangamner, very little is wooded. About four-fifths of the forest lands are on hills and about one-fifth on the plains. The Akola and Sangamner teak forests yield rafters poles and firewood, a supply consumed mostly by the local market. The minor produce includes grass, *kúrvi* Strobilanthus grahamianus, bamboos, myroholans, *bábul* pods, *bor* berries, tamarind pods, and mangoes. The Akola sub-division, in the west of the district, has a great variety of trees. Some of them yield excellent timber for house-building and furniture, others make capital firewood, while the fruit pods bark or roots of many possess chemical and medicinal properties. Of wild Animals, though the tiger and panther are daily growing scarcer, the wolf Canis pallipes has of late increased in the sub-divisions of Párner and Karjat. The black buck Antelope bezoartica has also with grass-land reservation begun to increase. The supply of game birds is fair. The chief domestic Animals, the oxen, cows, buffaloes, sheep and goats, horses, and asses decreased considerably during the 1876-77 famine, but are reported to be regaining their former strength. The introduction of *tongas* or pony carriages during the last twenty years has interfered with the breed of fine cream-white straight-horned *kunám* oxen formerly used for riding or for drawing carts. Efforts are being made by Government for the improvement of the famous breed of Bhima-valley horses which was allowed to degenerate after the establishment of British supremacy in 1803. About forty years ago Ahmednagar was the chief breeding ground for the useful and hardy breed of Dekhan pony. Before the opening of railways these animals were numerous, but though still in great demand for drawing pony carriages, they have become scarce. Some Dhangars or shepherds have a class of specially good ponies, which are known as Dhangaris. Sheep are numerous, and goats, though not nearly so numerous, are kept by all except the richer and higher classes. Agriculture supports about 64·72 per cent of the population. The chief Soils, including many sub-divisions, are *káli* black, *támbat* red, and *barad* gray including *pándhri* white. Under Government water-works come the Bhatodi lake and the Ojhar and Lákh canals. The Bhatodi lake, an old work, built by Salábat Khán, the minister of Murtaza Nizám Sháh I. (A.D. 1565 - 1588), was restored by Government in 1871. When full it has an area of 310 acres and an available capacity of 149 millions of cubic feet. The Ojhar canal with the head-works at Ojhar, ten miles below the town of Sangamner, draws its supply from the Pravara river. The Ojhar canal is nineteen miles long, with a discharge at its head of 119 cubic feet the second, and commanding an area of 20,088 acres. It was begun as a relief measure in 1869 and completed in 1879. The Lákh canal with head-works twenty-eight miles below those of the Ojhar canal is twenty-three miles long, commanding 23,026 acres. It was completed in 1873-74. The Ahmednagar Crops differ little from the Poona crops. The staple grains are Indian millet Sorghum vulgare the chief early light soil grain, and millet *bájri* Pencillaria spicata. The others are, *gahu* wheat Triticum æstivum, rice Oryza sativa grown in the western valleys and in the east of the district as a change crop, *nácháni* Eleusine corocana, barley Hordeum hexas ichon, and maize Zea mays; the pulses are, cajan pea Cajanus indicus, gram Cicer arietinum, green gram *mug* Phaseolus mungo, black gram Phaseolus radiatus, horse gram *kulthi* Dolichos uniflorus, the lentil Ervum lens, and the pea Pisum sativum. Of oilseeds, sesame Sesamum indicum, linseed Linum usitatissimum, and castor seed Ricinus communis. Compared with other Dekhan districts but little cotton is grown. Sugarcane and to a less extent tobacco are the most important watered crops. In the garden lands near Ahmednagar the vine Vitis vinifera, and in Karjat and other sub-divisions the betel vine Piper betel, are grown.

POONA.

Poona, between 17° 54′ and 19° 22′ north latitude and 73° 24and 75° 14′ east longitude, has an area of 5,369 square miles, a population of 1,067,800, and a realisable land revenue of Rs. 18,05,183. The district of Poona is bounded on the north by Ahmednagar, on the east by Ahmednagar and Sholápur, on the south by Sholápur and by Phaltan Wái and Bhor in Sátára, and on the west by Roha in Kolába, Bhor in Sátára, and Pen Panvel and Karjat in Kolába. Except two isolated blocks in the Bhor state, one in the west and another in the south, the whole area within the above limits belongs to Poona. Besides the city of Poona, which forms a separate sub-division, the district is for administrative pur-

Poona.

poses distributed over eight sub-divisions, Junnar, Khed, Mával, Haveli, Sirur, Purandhar, Bhimthadi, and Indápur. Between the rough hilly west and the bare open east lie two more or less hilly belts, ten to twenty miles broad and seventy to eighty miles long. Beyond the second belt the plain narrows to fifty and then to about twenty miles and stretches east for about ninety miles. The western belt, called Mával or the sunset land, consisting of a series of table-lands or steppes, separated by deep-winding valleys and crossed by hills, stretches ten to twenty miles east of the Sahyádris. Except a stunted growth of underwood the rugged boulder-strewn hill-sides during most of the year have no vegetation. Here and there on hill-side ledges or in deep dells are patches of ancient evergreen forest. The people live in slightly built thatched or tile-roofed houses grouped in small hamlets generally on some terrace or mound. The central belt is roughened by chains of smaller hills which gradually sink eastwards into the plain. The valleys are straighter and broader and yield luxuriant crops. Though the plateaux are bare their outlines redeem the view from dulness. And the lowland, studded with mango banian and tamarind groves, enriched with gardens, and, along the banks of the Mutha canal, green with sugarcane, make this belt one of the most pleasing parts of the Dekhan. East of Poona the district narrowing from fifty to twenty miles changes from valleys and broken uplands into a bare plain. The table-land becomes a soilless rolling upland yellow with stunted spear-grass and black with boulders. The lowland with mangoes and other evergreens in favoured spots though somewhat less bleak than the uplands is still dreary. The Hills of Poona belong to two distinct systems. The Sahyádris, running north and south, and the broken crested bluff flat-topped eastern spurs. At the pass or ghát heads the crest of the Sahyádris falls to about 2,000 feet, that is almost to the level of the eastern plateau. Between the passes lofty ridges and isolated hill-tops rise 1,000 or 2,000 feet higher. The leading peaks are Hariahchandragad (4,000) in north-west Junnar. The massive rock of Jivdhan in the Kukdi valley, commanding the Nána pass; three miles south of Jivdhan the very prominent hill of Dhák; ten miles south-west of Dhák the outstanding bluff of Ahupe (3,000 to 4,000); and eight miles south of Ahupe Bhimashankar the sacred source of the Bhima river. Fourteen miles south of Bhimashankar a second Dhák rises high massive and picturesque; five miles further, almost cut off from the Dakhan stands the famous double-peaked fort of Rajmáchi, ten miles south a slope ends westwards in a sheer cliff locally known as the Cobra's Hood and to Europeans as the Duke's Nose. About six miles south rises the rugged and lofty semicircle of the Jámbulni range with the Bhor peaks of Tung and Tikona behind. Further south are the isolated rocks of Kuari and Májgaon; then the prominent bluff of Sáltár, and, twenty miles beyond, Támhini the south-west corner of Poona. Of the four easterly belts of hills the first and third are parallel ridges ending eastwards in isolated blocks. The second and fourth belts are full of deep narrow ravines and gorges with terraced ides and broad flat tops. The chief peaks in the first belt are Betkeshvar, five miles north of Junnar, standing 2,000 feet, and Hadsar, a great fortified mass 1,200 feet above the plain. About four miles south-west of Hadsar, guarding the right bank of the Kukdi, the rounded wall-girt head of Chávand rises about 700 feet. Fourteen miles east stands Shivner 800 feet from the plain commanding the town of Junnar, its long waving ridge marked for miles by a flying arch standing out against the sky. Sixteen miles south-east, the line of water-parting between the Kukdi and the Mina, is the double-peaked outline of the ruined hill-fort of Narsyangad. South of this for about fifteen miles stretches the second belt of eastern hills, a confused mass of uplands with abrupt gorges, their steep ides covered with evergreen woods on the west, and with teak coppice on the east. In many places the slopes are broken by terraces containing patches of good soil often under the plough, and their tops stretch in wide table-lands. The highest peaks of this system are three conical hills, one in the village of Náyphad, the other two Shinga and Khondeshvar, at the southern end of the range. The third belt includes five chief spurs. The Tasohái ridge passing east to within a few miles of Talegaon-Dábhade; Shridepathár, twenty miles long, dividing the Andhra and the Kundali valleys; the Vehergaon spur; the Sákupathár plateau separating the Indráyani and the Pávana valleys and stretching as far east as the boundary of the Haveli sub-division; and further south within Bhor limits in the Pauna valley, the spur from which rise the two peaks of Tung and Tikona. The fourth belt of east-stretching hills is further south in the Mulshi petty division. It is almost as confused a mass as the third belt but less wooded and more tilled. South of Mulshi a belt of the Bhor state twenty-miles broad cuts off Poona from the Sahyádris. In this section of the district about ten miles south of Poona the Sinhgad range stretches east for seven miles starting in the fort of Sinhgad 2,000 feet above the plain and near the Kátraj pass dividing in two, one branch keeping east the other south-east. The east rn branch stretches about fifteen miles to the fortified peak of Malhárgad and from this nine miles to Dhavleshvar and from Dhavleshvar six miles to the famous temple of Bhuleshvar. The second branch turns south-east from the Kátraj pass for twelve miles and centres in Purandhar, with the fortified peak of Vajragad commanding the lower fort of Purandhar. Above the village of Jejuri at the end of the last ridge, the small plateau of Khárepathár is occupied by the ancient temple of Khandoba. Many Rivers, magnificent volumes of water during the rains and narrow threads during the hot season, rising in or near the Sahyádris, flow east and south through Poona. Of these the Bhima is the chief. Its main tributaries are, on the left the Vel and the Ghod, and on the right the Bháma, the Indráyani, the Mula, and the Nira. Besides the Bhima and tributaries, there are seven rivers, the Kukdi and the Mina tributaries of the Ghod, the Andhra a feeder of the Indráyani, and the Shivganga and Karha tributaries of the Nira. The Pushpávati, a minor stream with its feeder the Mándvi flows into the Kukdi, and the Pauna is a feeder of the Mula. The source of the Bhima, twenty-five miles north of Khandála, is marked by the temple of Bhimáshankar on the crest of the Sahyádris. Starting at a height of 3,000 feet above sea level for the first five miles the Bhima dashes over terraces of rock. Then flowing south-east through the narrow and rugged Bhimner valley it receives from the right near Pimpalgaon the waters of the Bháma and at Tuláپur the waters of the Indráyani; then bending south along the Haveli sub-division it receives the Vel below Talegaon-Dhamdhera, next turning north-east to Mahálungi, again running south and being joined by the Mula at Ránjangaon, once more bending south-east till it receives on the left the waters of the Ghod, next keeping east with a winding course and at Diksal north-west for some miles, it is at the extreme eastern corner of the district after a southward bend joined by the Nira. Except where it cuts deep into the soft mould or where its course has been obstructed by a ridge of basalt, the banks of the Bhima are low, and, after its meeting with the Indráyani, alluvial. The second river the Vel rising at Dhákle in a spur of the Sahyádris in the centre of the Khed sub-division, after a course of forty miles almost parallel with the Bhima, falls into it five miles below Talegaon-Dhamdhere. Third the Bháma rising in the Sahyádris about six miles south of Bhimashankar, after a south-easterly course of about twenty-four miles, falls into the Bhima near Pimpalgaon. Fourth the Ghod rising near Ahupe nine miles north of the source of the Bhima after a course of fifty-five miles falls into the Bhima about twenty miles below Sirúr. Fifth the Indráyani, rising at the head of the Karvande pass, after a course of about sixty miles meets the Bhima near Túlapur. Sixth the Mula, formed of seven streams rising at different points along the Sahyádri slopes, after a course of twenty miles falls into the Bhima at Ranjangaon-Sandas. Seventh the Nira, rising from the Sahyádris in the Bhor state, after a course of about a hundred miles, falls into the Bhima near Narsingpur. Poona is well supplied by six artificial Lakes, of which two are in the Haveli sub-division, three in Bhimthadi, and one in Indápur. Besides these six lakes considerable reservoirs occur at Baur, Kambra, Khandála, Karanjgaon, Karla, Mundharva, Talegaon-Dábháde, Uksan, Valvhan, in the Mával sub-division; at Jejuri in Purandhar; at Páshán in Háveli; at Patás in Bhimthadi; and at Indápur. Almost the whole Rock of Poona is stratified trap. Beds of basalt and amygdaloid alternate

whose upper and lower planes are strikingly parallel with each other and apparently with the horizon. The soft amygdaloid wears into a slope well suited for the growth of trees, while the hard black basalt, though its base may be buried in earth and stones, rises from the wooded belt majestic, its black front shining from the fringe of green. These girdles of smooth basalt walls, rising one within the other, make many of the Dekhan hills natural forts of amazing strength. A characteristic feature of the Poona rocks usually found at the base of hills, buried in the rubbish of decomposing strata, are the basalt balls, rounded or oval masses of compact basalt with concentric layers like the coats of an onion. Of the upright basaltic dykes two intersect each other running obliquely across the Indrayani valley, thirty-five miles north-west of Poona. Layers of red iron-clay underlie thick strata of basalt or amygdaloid. Sheet rock abounds with narrow vertical veins of quartz and chalcedony. In digging wells in the Poona cantonment splendid specimens of ichthyophthalmite have been found, and near the Mutha-Mula fine heliotrope and coloured quartz occur. Common salt and carbonate of soda are also recorded from several parts of the district. The height of the Poona plateau (1,800 feet), its freedom from alluvial deposits, and the prevalence of westerly breezes make its dry invigorating air better suited to Europeans than any climate in Western India. The air is lighter, the heat less oppressive, and the cold more bracing than in almost any other district of the Presidency. November to February make the Poona cold season, March to June the hot, and June to October the wet. During the cold season cool land winds prevail with sea breezes mostly after sundown. The hot winds, the chief characteristic of the hot season, are over by the middle of May. Then the heat of the sun raises from the sea masses of vapour which carried by the winds across the Konkan and west Dekhan condense in heavy dews and refreshing mists and gather over the centre and east in great thunder-clouds, and, after oppressive days, sometimes at the close of May, driven by a strong blast from the north-east, break in thunder and heavy rain. The south-west monsoon begins about the middle of June and lasts till the end of September. The rainfall varies considerably in different parts of the district. At Poona during the eight years ending 1893 it averaged about 34 inches. Except iron which occurs in various places as hæmatite associated with laterite and in magnetic grains in stream beds the district produces no metallic ores. The trap rock, boulders being locally preferred to quarried trap, almost everywhere yields good building stone and road metal. A variety of compact dark-blue basalt capable of high polish is worked into idols and pedestals for wooden pillars. Quartz occurs throughout the trap in various forms, either crystalline or amorphous in the form of agate jasper and heliotrope. Stilbite, and its associate the still finer apophylite, though less common than quartz, are by no means rare. One magnificent variety consists of large salmon-coloured crystals two or three inches long. The other mineral products are common salt, carbonate of soda, sand for mortar, and limestone. The Poona Forest lands may be roughly grouped into three classes: hill, river-bank, and upland reserves. Except in the Sinhgad range the hill-reserves, consisting of mixed evergreen woods and teak-coppice, are found in the west. The evergreen woods yield little timber, but the teak-coppices, chiefly on the slopes and terraces of the easterly spurs, furnish a valuable revenue. The groves found along the banks of almost all the larger rivers consist mostly of well-grown *bábúls* Acacia arabica. The third class of forest lands, the upland or *mál* reserves are found in every sub-division but chiefly in Sirúr Bhimthadi and Indápur. The chief forest trees are: the mango Mangifera indica, the *ain* Terminalia tomentosa, the *nána* and the *bondara* Lagerstrœmia lanceolata and parvifolia two closely allied species, the *hedu* Nauclea cordifolia, the *kalamb* Nauclea parvifolia, the *ásan* Bridelia retusa, the *savi* Bombax malabaricum, the *dhavda* Conocarpus latifolia, the teak Tectona grandis, the *jámbhul* Eugenia jambolana, the *yela* Terminalia bellarica, the *dhaman* Grewia tiliæfolia, the myrobolan Terminalia chebula, and the bamboo. The area of land under forests is 7·43 square miles or 14 per cent of the district. The district is well furnished with domestic Animals. It has ten breeds of cows and oxen of which the Khilári, that is herd-cattle from west Khándesh, are the most valuable draught animals in the Dekhan. Buffaloes are common over the whole district and are of eleven kinds, the chief good breeds being from Sind Cutch and Gujarát. For rice field-work the Poona cultivator prefers the buffalo to the bullock and the cow-buffaloes supply most of the district milk. Poona has long been famous for its horses and there are few villages in east Poona without one or two broodmares. Of eight breeds of horses the local or Deshi horse bred on the banks of the Bhima and Nira were most esteemed by the Maráthás. The Dhangar pony, thick-set short-legged and strong very unlike the ordinary village pony is of the same breed as the Nira pony. Asses are used as load-carriers by stone-cutters lime-burners potters and washermen. Mules, proverbially strong, chiefly cast Commissariat animals, are used by charcoal-burners in carrying loads and in drawing carts. Of sheep large flocks are found in most good-sized villages, and goats are common everywhere. Of domestic birds, cocks and hens are the only local poultry, but turkeys geese and ducks are found in the large towns where also many Musalmáns and some Hindus breed pigeons for amusement. The spread of tillage and the increase of population have so much reduced the number of wild animals that the tiger Felis tigris, the panther Felis pardus, the leopard Felis jubata, and the bear Ursus labiatus, are found only in the Sahyádris and even there in small numbers. Though still found in the Sahyádris, the stag Rusa aristotelis, and the spotted deer Axis maculatus, are rare, and the bison *gava* Gavæus gaurus is now almost unknown. The wolf is found in small numbers over the whole district. The wild boar Sus indicus abounds in the *bábúl* groves on the banks of the Bhima and Ghod, in the western hill forests, and, since the opening of the Mutha canal (1873), in the neighbourhood of Poona. The antelope Antelope bezoartica and the Indian gazelle Gazella bennettii, and sometimes the hog-deer Axis porcenus, are found in the hills. The district is poorly supplied with game-birds. Except of quail, and on rare occasions of a duck and snipe, no large bags are made in the district. Snakes are numerous but harmless. The mortality from snake-bite is insignificant. The rivers and streams are fairly stocked with fish, about thirty kinds of fish being offered for sale in the Poona market. During the rains and still more towards their close when the waters of the streams dwindle into chains of pools, fish are caught in nets and traps by the chief fishing classes, the Marátha and Koli Bhois. Agriculture in Poona supports 597,968 people, or about 56 per cent of the population. Though about four-fifths of the landholders, belonging to the Lingáyat-Váni, Dhangar, Nhávi, Koli, Rámoshi, Mhár, Chámbhár, and Musalmán communities, till their own lands, the leading husbandmen are the Kunbis and the Mális. The Soil of the district is lighter in the west than in the east. It belongs to three classes, black or *káli*, red or *támbdi*, and coarse gray or *barad*. In some places each class of soil blends with the others in varying proportions and in turn is modified by sand, gravel, lime-salts, and other ingredients. Black soil belonging to the plain

POONA.

east rather than to the hilly west, covers wide areas near rivers and large streams. Excellent black soil, of small depth with its surface covered with black basalt stones is found on table-lands. These upland black soils being favourite lands for the late *rabi* crops, yielding all the produce of the Dekhan, are specially suited for the growth of wheat grain and sugarcane. The reddish or copper-coloured soils, shallower and coarser than the black and probably the ruins of the iron-bearing rocks, are commoner in the west. The best red soils are found near Pabal between Khed and Sirúr. The coarse-gray or *kirad* is found covering the higher slopes and tops of the lower uplands of the eastern plain. It is decomposed basalt with a mixture of iron ore. In seasons of heavy rainfall it yields spiked millet and the early pulses but does not bear wheat peas or any cold-weather crop. The reddish soils do not occur in the hilly west. The chief Water-works made or repaired by Government are: Lake Fife, the Mutha and Nira canals, and the Kásurdi, Mátoba, Shirsuphal, and Bhádalvadi reservoirs. The Mutha canals, with the storage reservoir of Khadakvásla or Lake Fife, ten miles west of Poona, were completed in September 1879 at a cost of Rs. 2,17,000. From Lake Fife two canals start, one on each bank of the river Mutha. The right bank canal, with a head discharge of 412 cubic feet which can be increased to 535 cubic feet the second, after a course of 69½ miles ends in the village of Pátas. The actual area under command is 94,080 acres or 147 square miles. The left bank canal commands an area of 3,500 acres and at the head has a full supply discharge of 38·5 cubic feet the second. The right bank canal passes through Poona station, while the left bank canal extends a short distance beyond Kirkee. The work supplies the city and cantonment of Poona and the Kirkee powder-wor s with water. Lake Fife formed by a masonry dam founded on solid rock is one of the largest works of its kind. Its contents are 4,911 millions of cubic feet and the area of the water surface is 3,535 acres or 5½ square miles. At the site of the dam the river has a catchment area of 196 square miles. The Nira canal, designed to irrigate the left bank of the Nira and part of the Bhima valley, has a length, exclusive of channels, of 103 miles, and commands 280,000 acres of arable land in ninety villages in the Purandhar Bhimthadi and Indápur sub-divisions. Its storage reservoir, at Bhátgar near Bhor, has an area of 7½ square miles, with a capacity of 4,641 million cubic feet increasable to 5,500 millions. The head-works of the canal are at Virvadi near Purandhar. The value of the Nira canal works, which were opened in 1884, was Rs. 5,90,365. The Kásurdi reservoir was made in 1838 at Kásurdi in Bhimthadi, 24 miles east of Poona. In 1843 the main embankment was partly washed away. Its restoration was begun in 1864 as a famine relief measure and finished in 1869 at a total cost of Rs. 47,496. It is a small reservoir dependent on the local rainfall and holding 14½ millions of cubic feet of water and furnished with two distributing channels commanding 585 acres. The Mátoba reservoir, in the village of Pimpalgaon in Bhimthadi, twenty-eight miles east of Poona, was made in 1876-77 to store the surplus waters of the right bank Mutha canal and water the land between it and the Mutha-Mula river, at an expenditure of Rs. 1,98,000, the actual value of the work executed being Rs. 1,40,000. It has an area of 470 acres and a capacity of 229 millions of cubic feet of water. The Shirsuphal reservoir, one and a half miles above the Bhimthadi village of Rávangaon, fifty miles east of Poona, has an area of 834 acres and a capacity of 367 millions of cubic feet. It was built for the irrigation of the lands on the left bank of the Rotimal Nála and completed in 1878, the value of the work executed being Rs. 1,45,000. The Bhádalvádi tank, about 64 miles east of Poona, in the Indápur village of Bhádalvádi, designed to water the lands of the Dalij and Palasder villages, has an area of 335 acres and a capacity of 222 cubic feet. It was completed in 1881, the value of the work being Rs. 48,000. Besides these works there is, about six miles south of Poona, the Katraj lake built in 1760 by Peshwa Báláji Bájiráo, covering an area of 5½ acres, and with a rubble masonry dam 1,000 feet long and 40 feet high. It holds water all the year and masonry conduits convey its supply to Poona. The Pátas lake, thirty-seven miles east of Poona in the Bhimthadi village of Pátas, was finished in 1879 at a cost of Rs. 34,000, with an area of 46 acres and a capacity of fifteen millions of cubic feet. The Supa reservoir, about one mile north-west of the Bhimthadi village of Supa, 35 miles east of Poona, was finished in 1877 at a cost of Rs. 2,200. It is a trifling work useful for cattle. The Pashan reservoir in Pashan, six miles west of Poona, was made in 1867-68 at a cost of Rs. 1,67,000 to furnish water for Kirkee and Government House, Ganesh Khind. It has an area of 153 acres and a capacity of seventy-three millions of cubic feet. The chief Crops of the district are of grains *bájri* spiked millet Penicillaria spicata, *jvári* Indian millet Sorghum vulgare, *bhadli* Panicum pilosum, and *bárti* Paspalum scrobiculatum, the two last grown almost entirely in the east of the district. Rice Oryza sativa, of eleven varieties, is the chief product of the west; wheat Triticum æstivum is grown in small quantities all over the district; *harik* Paspalum frumentaceum, a light-soil crop of the western hill sides; *makka* Zea mays, *nágli* Eleusine corocana, *vála* Panicum italicum, barley Hordeum hexastichon, and *sáva* Panicum miliaceum, are also grown. Of pulses the most largely grown is gram Cicer arietinum. Twelve other varieties occur: *dáng-charli* Dolichos sinensis, *kulthi* Dolichos biflorus, *lákh* Lathyrus sativus, lentils Ervum lens, *math* kidney bean Phaseolus aconitifolius; *mung* green gram Phaseolus mungo; *pávta* Dolichos lablab, *rán* Dolichos catjang, *túr* pigeon pea Cajanus indicus, *udad* black gram Phaseolus radiatus, *vál* Dolichos spicatus, *vatána* peas Pisum sativum. Of oil-seeds seven kinds are grown: *ambádi* brown hemp Hibiscus cannabinus, *bhuimug* earth-nut Arachis hypogœa, *erandi* castor-seed Ricinus communis, *alshi* linseed Linum usitatissimum, *karle* nigerseed Verbesina sativa, *kasumba* safflower Carthamus tinctorius, *til* sesame Sesamum indicum. Of fibre-plants, three: brown hemp Hibiscus cannabinus, cotton Gossypium herbaceum, and Bombay hemp Crotalaria juncea. Of dyes, four: turmeric Curcuma longa, *kasumba* safflower Carthamus tinctorius, *shendri* Bixa orellana, and *ál* Indian madder Morinda citrifolia. Of narcotics, three: *gánja* hemp Cannabis sativa, the betel-vine Piper betel, and tobacco Nicotiana tabacum. Of spices, eight kinds: ginger Zinziber officinale, sweet fennel Anethum fœnicatum, turmeric Curcuma longa, coriander Coriandrum sativum, chillies Capsicum annuum, *ova* Ptycotis ajowan, fennel Anethum sowa, and sugarcane Saccharum officinarum. Of vegetables twelve bulb-yielders, twenty fruit-yielders, four pod-yielders, and twelve leaf-yielders are grown. In the best garden lands the vine Vitis vinifera is occasionally found.

SÁTÁRA.

Sat'ara, at the western limit of the Dekhan table-land between 16° 50′ and 18° 10′ north latitude and 73° 45′ and 75° 0′ east longitude, has an area of 4,821 square miles, a population of 1,225,989, and a realisable land revenue of Rs. 24,93,529. Sátára is bounded on the north by the river Nira and the states of Bhor and Phaltan; on the east by Sholápur, the Atpádi division of the Pant Pritinidhi state, and the state of Jath; on the south by the lands of the Sángli branch of the Patwardhan family, by a few villages of Belgaum, by the river Varna, and beyond it by Kolhápur; and, on the west, by the Sahyádris and beyond them by the Ratnágiri and

Kolába districts. Of the six large jaghirs or feudatory estates that border Sátára on the north-west north-east and south-east, Bhor in the north-west has an area of 1,491 square miles, a population of 155,669, and a gross revenue of Rs. 3,59,100; Phaltan in the north has an area of 397 square miles, a population of 66,983, and a gross revenue of Rs. 2,48,289; Aundh in the east, an area of 447 square miles, a population of 65,146, and a gross revenue of Rs. 3,41,734; and Jath in the extreme south-east, an area of 884 square miles, a population of 71,443, and a gross revenue of Rs. 1,68,826. For administrative purposes Sátára is distributed over eleven sub-divisions: Wai, Javli, Sátára, Koregaon, Patan, Karád, Valva, Mán, Khatáv, Khánapur, and Tásgaon. Beyond the north-western limits of the district of Sátára the Bhor state, starting from the Mahádev hills, with a breadth varying from thirty-five miles in the south to fifteen miles in the north, stretches over the rough Sahyádri lands in south-west Poona as far as within six miles of the line of the Bhor pass. Towards the north beyond the Mahádev range lies Phaltan, a flat tract draining north to the Nira. Except a corner in the north and north-east which drains into the Bhima, the Sátára district is the head of the valley of the Krishna, an area about 100 miles north and south by eighty east and west. Down the centre with a general slope to the south and south-east, along a valley which slowly opens into a plain, the Krishna flows first to the south and then to the east, passing across the whole district from its north-west to its south-east corner. From the central plain of the Krishna eight valleys branch to the hills. Six of them on the right run west or north-west, flanked by spurs from the Sahyádris, and two of them on the left run north, flanked by spurs from the Mahádev range. In the west the district is rugged and well-watered; in the east, including the Atpád block of the Aundh state, it is flat and barren. Between the rugged well-watered west and the flat parched east the Krishna valley forms one of the richest tracts of the Bombay Dekhan. The possessions of the Aundh chief are scattered over some of this rich tract in Mán, Koregaon, Khánápur, Karád, and Tásgaon. In the extreme south-east, with the exception of a few small hills, Jath is a flat country, its land poor and thinly peopled, suited for little except cattle-breeding. The only well-wooded part of Sátára is in the west near Mahábaleshvar and the Koyna valley. The Mahádev hills, across the north of the district, are bleak and bare, even in the rains scantily draped with green. The western hills have bold sharp outlines, many of them flat-topped with lofty black scarps looking from a distance like fortress walls. The bulk of the Soil of the western or Sahyádri belt is iron-charged and poor, fit only for the coarser hill grains. The people are Musalmán labourers and Maratha Kunbis. Further east, small hamlets perched on knolls on high stream banks are inhabited by a people who grow their crops with the help of woodash manure. Stretches of valuable teak gradually give way to tillage as the narrow western dales open into broad valleys with *bábul*-fringed stream-banks and lines of roads shaded by lofty trees. Near the centre of the Krishna valley, on the well-watered black soil banks of the main stream, are large and shady villages peopled by skilful husbandmen who rear a succession of rich crops. Except in the extreme south near the Krishna, the east, including the sub-divisions of Mán Khatáv Khánapur and Tásgaon, is barren. The Sátára district contains two main Hill systems, the one centering in the Sahyádri range in the west, the other in the Mahádev range in the north. Especially in the north-west the tops both of the Sahyádri and Mahádev hills look like a succession of fortresses raised on a series of plateaux piled one on the other, the whole surmounted by a wall of rock. The Sahyádri range through a distance of sixty miles forms the western boundary of the district. From the high Dakhan table-land on the east the Sahyádris seem somewhat low and tame. But from the western edge of their crest they are wasted into great masses with bold wild outlines and cliffs with, in places, sheer drops of over 3,000 feet. In the length of sixty miles the highest point is the sanitarium of Mahábaleshvar, 4,710 feet. The crest of the Sahyádris is guarded by five forts, Pratápgad the northmost, Makarandgad seven miles south, Jangli-Jaygad thirty miles south of Makarandgad, Bhairávgad ten miles south of Jangli-Jaygad, and Prachitgad about seven miles south of Bhairávgad. The main line of the Sahyádris is crossed by eight Passes. The FitzGerald pass in the north-west of the district ten miles west of Mahábaleshvar, the Pár pass, the Hatlot pass, the Amboli pass, the north Tivra pass, the Kumbhárli pass, and the south Tivra pass. From the Sahyádris five spurs stretch east and south-east, beginning from the north, Kamálgad, Vairátgad, Hatgegad-Arlé, Bamnoli-Gherndatgad, and Bhairavgad-kandur. The Mahádev range in the north with its southern offshoots, the second system of Sátára hills, is crossed by three important passes: the Khamátki pass, and two breaks near Tadála. The three spurs that stretch south from the main Mahádev range are the Chandan-Vandan the Vardhanagad-Machindragad and the Mahimangad-Panhála. Within Sátára limits are two River systems: the Bhima system in a small part of the north-east and the Krishna system throughout the rest of the district. A narrow belt beyond the Mahádev hills drains north into the Nira, and the north-east corner of the district drains south-east along the Mán. The total area of the Bhima system including part of Wái, the whole of Phaltan, and the sub-division of Mán is probably about 1,100 miles, while the area of the Krishna system is 4,000 miles. Of the Krishna's total length of 800 miles, 150 are within Sátára limits. It rises on the eastern brow of the Mahábaleshvar plateau in 18° 1' north latitude and 73° 41' east longitude, four miles west of the village of Jor in the extreme west of Wái. In its course through Sátára the Krishna receives eight feeders, six from the right and two from the left. The six right bank feeders are the Kudali, Yenna, Urmodi, Tarli, Koyna, and Varna; the two from the left are the Varna and Yeola. Within Sátára limits its rocky channel and rapid stream unfit the Krishna for navigation, though in parts it is used for irrigation. Of the Bhima river system the chief Sátára representatives are the Nira in the north and the Mán in the north-east. The Nira rises within the limits of the Pant Sachiv of Bhor, and running through Wái Phaltan and Malsiras in Sholápur, after a total length of 130 miles, falls into the Bhima, five miles east of Tambve in the extreme north-east of Malsiras. The Mangangi rises in the Tita hills in the north-east of Mán, and, after a course of 100 miles, through Mán Sátára and Atpádi in Sátára, and through Sangola and Pandharpur in Sholápur joins the Bhima at Sarkoli, ten miles south-east of Pandhárpur. The whole of Sátára falls within the Dekhan trap area. As in other parts of the west Dekhan the hills are layers of soft amygdaloid trap separated by flows of hard basalt, and capped by laterite or iron-clay. Unlike the usual division of the year into four seasons Sátára has five Seasons: the rainy, from the 10th of June to the end of September, a close sultry time from the end of September to the middle of November, the cold season from the middle of November to the end of January, a dry hot time in which easterly winds prevail from the beginning of February to

the end of March, and the hot weather from the beginning of April to the 10th of June. During the south-west rains the fresh westerly breeze makes the climate agreeable. Rain falls in November and December, at the beginning of the north-east monsoon, in showers during the cool months, and again in May enabling the husbandman to sow his early crops. The hot weather though exhausting is not so trying as in most other parts of the Presidency. The average rainfall during the 8 years ending 1893 was 42 inches. Near the Sahyádris in Javli Pátan and Shirala, iron ore is found beneath the *murum* or broken trap below the laterite. Till recent times iron ore was smelted by a class of Musalmáns called Dhávads. Of late, partly from the want of fuel and partly owing to the cheapness of imported iron, the Dhávads have ceased to smelt iron. The other Mineral products are: building stone, trap in the plains and laterite on the hills, road metal, and limestone. Sátára Forests consist almost solely of hill-land. They are scattered over the whole district with a total area of about 694 square miles. In the west the belt of evergreen forest along the line of the Sahyádris is divided into six fairly compact forest ranges. The seven eastern forest ranges, bare hills with here and there a little scrub and teak, are much mixed with private and cultivated tracts. The Sahyádri forest lands belong to three groups: the evergreen of the main forest ranges, the slopes of the spurs that run east from the Sahyádris, and the bare or bush-sprinkled hills to the east of the Krishna. The evergreen forests contain many trees valuable for timber and firewood. Among them the *jámbhul* Eugenia jambolanum, *anjan* Memecylon tinctorium, *ain* Terminalia glabra, *umbar* Ficus glomerata, and *phanas* Atocarpus integrifolia. Of minor forest products are the bamboo and the myrobolan *hirda* Terminalia chebula. The second group of forest lands, on the spurs and slopes that branch east from the Sahyádris, are to a considerable extent covered by teak mixed with brushwood. The third group, the bare or bush-sprinkled hills to the east of the Krishna, including the south slopes of the Mahádev hills and two ranges running north and south parallel to the Krishna, are in some places covered with teak and scrub. Sátára has two breeds of cows and oxen, the local and the Khilári which is said to come from the east. Though larger and more muscular the Khilári is somewhat more delicate and shorterlived than the local bullock. There is no special breed of buffaloes. The valley of the Mán used to be famous for its horses. All interest in horse-breeding has now died and except by the chiefs and wealthy landowners the animals ridden by the people are seldom more than ponies. Sheep and goats are bred locally, few of them either coming into the district or leaving it. Goats are valued chiefly for their milk. One breed of goats whose long hair is twisted into ropes is kept by Dhangars. Surat goats are occasionally imported. Pigs are kept for eating by Vadars and Kaikádis, and donkeys as pack-animals by Vánis Kumbhárs and Vadars. Mules are used as pack-animals sparingly and camels are rarely seen. In the west near the Sahyádris chiefly in the Koyna valley and the Mala pass hills are found the tiger, panther, bear, *sámbar*, spotted deer, ribfaced or barking deer, hog-deer, and bison. In the east are the hyæna, wolf, fox, leopard, antelope or black buck, and the *chinkára* or Indian gazelle. Common to both east and west are the hare, porcupine, monkey, hog, and wild cat, including the civet cat and the tree cat. Of late years bison have increased in the Mala pass hills. Tigers and panthers are not so numerous as to do much damage, though occasionally a man-eating tiger appears. Sátára differs little from Poona in the number variety or harmfulness of its snakes. The Vena, Krishna, Koyna, and Várna have large pools that hold water throughout the year and are fairly stocked with fish. Of game birds the common sand grouse, the painted partridge, and the common gray partridge are plentiful. Fair bags of the gray and rain quail may be obtained on the Nira and on parts of the Krishna. Of plovers the courier and stone plover are common. From December to March the demoiselle crane is to be found in flocks on some of the rivers and reservoirs. Though the three varieties of snipe, jack common and painted, occur they are seldom found in numbers. Herons and egrets are common. Of the ibis four and of duck seven species are to be seen on the large Sátara rivers. The supply of birds other than game birds is large and varied. Agriculture supports about 70 per cent. of the people. The Soils belong to three main classes: red in the hills and black and light in the plains. The black soil, which is generally found in belts along the rivers, is most widely distributed in the Krishna valley making it the richest garden and dry-crop land in the district. Near the heads of the streams, which issue from the Sahyádris, the red soil of the valleys yields most of the rice grown in the district. The chief Irrigation Works are: The Revári canal on the Várna, originally partially built about 1781 by Náro Appáji, a distinguished officer in the Peshwa's service, completed by the British Government in 1849, and restored by Government about 1863 at a cost of Rs. 56,522. It came into use in 1865-66 and commands an area of 6,000 acres. The Yerla river works, begun in 1867 and finished in 1868, the right bank canal being nine and the left 8¼ miles long are supplemented by the Nehra lake finished in 1880-81, with a capacity of 523 millions of cubic feet. The whole scheme involved a cost of Rs. 6,20,533. The Gondoli canal, lying on the river Mán, known as the Upper Mán River Works, and begun as a relief work in 1867 was completed in 1872. The main canal, eight miles long, is connected with the Pingli lake, three miles above the head-works of the Gondoli canal. The whole undertaking was begun as a relief measure in 1876 and completed in 1878 with a capacity of 195 millions of cubic feet and a cost of Rs. 4,07,421. The Máyni lake on the Váng river, a feeder of the Yerla, finished in 1875-76 at a cost of Rs. 3,67,671, with an area of 380 acres, holding 190 millions of cubic feet of water, supplies a ten-mile long canal commanding 4,625 arable acres. The Chikhli canal, on the right bank of the Nándni, a feeder of the Yerla, partly made as a famine relief work at a cost of Rs. 53,803 and opened in 1870, commands 1,478 arable acres. The Krishna canal watering, besides certain villages of the Pant Pratinidhi and Sángli states, the lands of the Karád Valva and Tásgaon sub-divisions, has its head-works two miles above Karád. The drainage area at the site of the head-works is 1,247 square miles. The works, which cost Rs. 8,13,068, were opened in 1868. The canal supplies the town of Karád with drinking water, and has 25,523 acres under command. The Mhasvad lake, having a catchment area of 480 square miles and a full supply depth of sixty-seven feet, completed at a cost of Rs. 1,97,450, covers an area of six square miles and can hold 2,585 millions of cubic feet of water. It includes a large lake on the river Mán in the Mán sub-division and a thirteen-mile long high level canal commanding the area between the Mán and the Bhima. Besides at Karád two reservoirs at Sátára and Islámpur supply those towns with drinking water. The lake is on the Urmodi river close to the village of Kás in Javli and thirteen miles in a straight line west by north of Sátára. When full the lake covers 137 acres and holds 73,737,000 cubic feet of water. A canal, 15¼ miles long, brings the water of the lake to the Yavteshvar conduit about two miles west of the town. The cost of the whole works was about Rs 3,65,163. The Islámpur lake, a mile south of the town of Islámpur, constructed for the water-supply of Islámpur in the Valva sub-division, holds twenty-five millions of cubic feet of water. It was begun as a relief measure in 1876 and finished in 1879 at a cost of Rs. 66,939. The Crops of the district are in the order of importance: of grains *bájri* or spiked millet, Indian millet, *rági*, wheat, *sáva*, rice, Italian millet *rála*, maize, and barley. Of pulses gram, *tur*, *kulthi*, *udid*, *mug*, and *math*. Of oil-

seeds gingelly seed, linseed, nigerseed, and castor seed. Of fibres and dyes, brown hemp safflower and cotton. Tobacco and sugarcane are also grown.

SHOLÁPUR.

Shola'pur, between 17° 10′ and 18° 32′ north latitude and 74° 42′ and 76° 15′ east longitude, has an area of 4,542 square miles, a population of 750,689, and a realisable land revenue of Rs. 12,07,871. To the south-east of Sholápur is the Akalkot state with an area of 498 square miles, a population of 75,774, and a gross revenue of Rs. 2,81,948. Except Bársi in the north-east which is surrounded by the Nizám's country, Sholápur is bounded on the north by Ahmednagar and the Nizám's country; on the east by the Nizám's country and the Akalkot state; on the south by the river Bhima, the district of Bijápur, and the Patvardhan and Jath states; and on the west by A'tpádi Sátára Phaltan Poona and Ahmednagar. For administrative purposes the lands of the district are distributed over seven sub-divisions: Bársi, Sholápur, Sángola, Málsiras, Karmála, Mádha, and Pandharpur. The district lies in the basins of the Sina in the north, the Bhima in the centre, and the Nira and Mán in the south. North Bársi, west Mádha, and south-west Málsiras and Karmála are hilly; the rest is a flat or waving country rolling in long low uplands separated by hollows. The shallow uplands are suited for pasture and the deep-soiled lowlands under careful tillage yield the richest crops. In Karmála and Mádha in the north-west and centre, the water-shed that divides the Sina drainage on the north from the Bhima drainage on the south, is marked by low table-lands and small separate hills. Except this the Sholápur uplands are gently rounded swellings of trap overgrown with yellow stunted spear-grass. Low-lying villages are shaded by trees, and Bársi has large mango groves. The rest of the district is bare bleak and treeless. In Sángola where the soil is black and stony, the small villages stand generally on river banks. In Sángola and Málsiras most of the villages are open: in other parts as a rule they are walled. The Akalkot country is an open rolling plain, extremely bare of trees except the villages which are shaded by mango groves. Except in Bársi Karmála Mádha and Málsiras, Sholápur has few hills. The chief Hills are: Vadshi ghát, noted for its cave temple sacred to Rámeshvar in Bársi, Vaghoba (210 feet) and Bodki (190 feet) in Karmála, the *mala* or highland of Chinchgaon (300 feet) in Mádha, and in Málsiras the hill near the village of Gurvál, crowned by a temple of Tukai about 400 years old. The chief Rivers are: the Bhima with its right bank feeders the Nira and the Mán and its left bank feeder the Sina, which receives the Bhogávati from the north. During the dry season (December-June) all the rivers are fordable and during the monsoon (June-November) they are flooded. The Bhima, one of the chief feeders of the Krishna, rises in the Sahyádris in the Khed sub-division of Poona. It runs south-east through Poona Ahmednagar Sholápur and Bijápur, and, after a course of about 180 miles within Sholápur limits, falls into the Krishna about sixteen miles north of Raichur in the Nizám's territories. The Nira rises in the Bhor state in the Torna spur of the Sahyádris, and, running along the borders of Poona Sátára and Sholápur, after a total length of 110 miles, falls into the Bhima about five miles south-west of Tembhurni in Karmála. The Mán rises in a spur of the Mahádev range in the Mán sub-division of Sátára and running through Sátára the Pant Pratinidhi state and Pandharpur in Sholápur, after a course of about 100 miles, falls into the Bhima at Sarkoli, ten miles south-east of Pandharpur. The Sina rising fourteen miles west of the town of Ahmednagar falls into the Bhima near Kudál about twenty miles south of Sholápur after a course of about 110 miles. The Bhogávati rising in the Balaghát range north-east of Bársi after a course of about forty miles falls into the Sina about four miles north of Mohol in Mádha. Sholápur has seven Water-works, of which three, the Koregaon Ashti and Ekruk lakes, supply tillage water, and four, at Sholápur Bársi Karmála and Pandharpur, supply drinking water. Except the Koregaon lake which is old and recently improved, these are new works. Of the tillage water-works the Koregaon lake lies thirteen miles north-east of Bársi. As restored after 1878 at a cost of Rs. 12,000, it has a depth of fourteen feet, an available capacity of 81,298,114 cubic feet, and a full supply area of 8,793,017 square feet or 202 acres. The Ashti lake, twelve miles north-east of the town of Pandharpur in the Mádha sub-division, has an area when full of rather more than four square miles, and holds 1,499,470,085 cubic feet of water. From this lake two canals are led, the left bank canal 11½ miles long, discharging thirty cubic feet of water a second and commanding 12,258 acres; and the right bank canal, ten miles long, discharging ten cubic feet a second and commanding 5,624 acres. The work was completed in 1882-83, being worth Rs. 1,46,280 at normal rates. The total expenditure on relief works was Rs. 3,09,620. The Ekruk lake, one of the largest artificial pieces of water in the Bombay Presidency, lies five miles north-east of Sholápur. When full it has a depth of sixty feet and holds 3,350 millions of cubic feet. The area of water surface is 4,640 acres or 7¼ square miles. Of the canals one on each bank is at a high level designed for a four months', and the third on the left bank is at a low level designed for a twelve months' discharge. Of the two high level canals that on the right bank, which is eighteen miles long, discharges fifty cubic feet a second and commands 665 acres, and the left bank canal, which is four miles long, discharges twenty cubic feet a second and commands 856 acres. The low left bank canal is twenty-six miles long, discharges seventy cubic feet a second and commands 10,601 acres. The low level canal flows past the town of Sholápur. All the works connected with the lake were completed in 1881-82 at a total cost of about Rs. 12,12,620. Of the four town water-works the Sholápur distribution works of water raised by a steam pump from the low level Ekruk canal were opened in March 1881 at a cost of Rs. 2,17,184 paid by the Sholápur municipality. The available capacity of the two small storage reservoirs is 68,711 cubic feet. The Bársi storage reservoir, designed to contain nineteen millions of cubic feet, has a surface area of sixty-five acres and a drainage area of 1½ square miles. It was built close to the town in 1877 at a cost of Rs. 28,250. The Karmála water-works, to supply drinking water to the town of Karmála from springs in wells lying about three quarters of a mile to the south of the town, were completed in 1877 at a cost of Rs. 2,350. The Pandharpur storage reservoir about a mile south-west of the town was built in 1874 at a cost of Rs. 2,16,140 with a drainage area of ten square miles, a full surface area of 196 acres, and a capacity of 89,330,058 cubic feet. As in most of the Dekhan the general Geological formation is trap covered in many places with a shallow overlayer of very light soil and in parts by a good depth of rich loam suited for cotton. Except the hot months (March - May) the Climate of Sholápur is healthy and free from extremes of heat and cold. The year consists of three nearly equal seasons: the cold season from November to February, the hot from March to mid-June, and the rainy from mid-June to the end of October. The rainfall all over the district is scanty. The average in Sholápur city during the eight years ending 1893 was a little over 31 inches. Except trap or basalt used as building stone and for road metal, and nodular limestone used in cement, Sholápur has no Mineral products. The scattered dry and shallow-soiled forest area of Sholá-

SHOLÁPUR.

pur is ill suited for the growth of trees. The two main tracts of forest land are in the extreme north-east on the hills between Bársi and the Nizám's country and in the extreme south-east on the hills to the south of Málsiras and Sángola. Before the introduction of forest conservancy in 1871 Sholápur was extremely bare of trees and brushwood. Scattered over Sholápur, Bársi, Karmála, Mádha, Pandharpur, Málsiras, and Sángola are 278 square miles of forest lands of two classes, scrub forest found on the hills of Bársi Málsiras and Sángola, and *bábul* meadows all over the district. The chief scrub forest trees are the *khair*, *nim*, *apta*, *bábul*, *dhávda*, *bor*, *goti*, *kindi*, *lulia*, *shikákai*, and *taras*. For domestic Animals Sholápur is fairly off. The six breeds of oxen and cows are the Khilári raised by Dhangars, the Deshi local or Lamáni breed, a breed from Málwa, one from Gujarát, and one from Gokák in Belgaum. Of these the Khilári breed are the best and the local both oxen and cows the commonest. Of buffaloes there are two breeds, Gavli or milkman's and Deshi or local. Since the famine of 1876 and the Afghán war of 1879 Sholápur has lost its name as a pony-breeding district. The dry plains of the southern sub-divisions are specially suited for rearing sheep and goats. The Dhangars breed flocks of sheep, and the poorer classes keep goats for their milk. Asses are bred by Beldáre or quarrymen, and pigs are reared by Vaddars or earth-workers for eating. The Dhangars have a breed of strong brave shepherd dogs. Of poultry fowls only are reared by Musalmáns and lower class Hindus. The treeless plains of Sholápur do not afford cover for the larger beasts of prey. The common wild animals are the wolf, jackal, gray fox, and wild boar. Of deer the only species are the Indian antelope and the ravine deer. The small local demand for fish in Sholápur is met from the district rivers and reservoirs. The district affords fair game bird shooting. Two kinds of snipe, the common and jack, are found and the *kullum* Anthropoides virgo is plentiful. The reservoirs and rivers contain a fair supply of duck. The Soil of Sholápur is of three kinds, black coarse-gray and reddish. Except in Bársi where black soil is the rule and coarse-gray is rare, most of the district is either gray or red. Of Crops the chief are, of grains Indian millet *jvári*, spiked millet *bájri*, wheat *gahu*, rice *bhát*, maize, panic *káng*, and barley *jáv*. Of pulses *tur*, *harbhara*, *kulith*, *mug*, *udid*, lentils *masur*, and peas *vatána*. Of oilseeds linseed *alsi* and gingelly seed *til*. Of fibres, cotton *kápus*, Bombay hemp *sán* or *tág*, and common hemp *ambádi*. Of miscellaneous crops, *mirchi* chillies sugar-cane and tobacco Nicotiana tabacum, and *gánja* Cunabis sativa.

BIJÁPUR.

Bija'pur, between 17° 28′ and 15° 48′ north latitude and 75° 24′ and 76° 31′ east longitude, has an area of 5,668 square miles, a population of 796,233, and a realisable land revenue of Rs. 18,26,211. The district is bounded on the north by the Bhima which separates it from Sholápur and Akalkot; on the east by the Nizám's territory; on the south by the Malprabha which divides it from Dhárwár; and on the west by the states of Torgal Mudhol and Jamkhandi, the Athni sub-division of Belgaum, the Jath and Karajgi states, and Mangalvedha in Sángli. For administrative purposes it is distributed over eight sub-divisions, Indi, Sindgi, Bijápur, Bágevádi, Muddebihál, Bágalkot, Bádámi, and Hungund. The sudden passing from trap to sandstone causes a peculiar dissimilarity between the scenery of the north and of the south of the district. For some distance the Krishna running from west to east divides the two types but they meet in Muddebihál in the south-east. The Don valley in the centre furnishes a third type, not intermediate between the two, but closely related to the sterile trap country through which the Don passes. The northern belt extending some forty miles north of Bijápur and the greater part of Sindgi to the east of Bijápur has all the features of the open Dekhan trap country. It is neither flat nor hilly but a succession of low billowing uplands, bare of trees, gently rounded and falling into narrow intermediate valleys. On the uplands the soil is so shallow that tillage is mostly confined to the valleys which yield fair crops. The top of every third or fourth upland looks down a stream bed fringed with wild date trees and occasionally enriched with a cluster of *nims* or fine old mangoes and tamariuds. The villages lying generally on stream banks are seldom close to one another. A ruined wall with one or more gates encircles a cluster of houses built of trap plastered with mud, one-storeyed and flat-roofed with a blind wall running round each. In spite of its general barrenness the trap country has excellent water. During the rains when the uplands are green and the valleys are waving with millet the effect is not unpleasing. But, about March, when the crops are gone, when here and there the naked black trap shows in large patches, and burning blasts sweep across the treeless slopes the country appears little better than a desert. The Don valley or the central belt begins close to the south of the old city of Bijápur and with rich though scantily-watered soil crosses the district from west to east. The southern belt, lying to the south of the Krishna, is a rich plain crossed from west to east by two lines of sandstone hills 250 to 300 feet high covered with brushwood and prickly-pear. Within the space between the two ranges of hills lie several beautiful lakes notably those near Kendur and Mushtagiri. Below the dams of some of these lakes as at Kendur are pretty cocoanut and plantain gardens watered by channels fed by the leakage of the lake. Further south all over Bádámi and south-west Hungund are more and steeper hills. The black soil has given place to red sand and timber is frequent. Bádámi with its bold red cliffs capped with brilliant green, its sheet of water in the gorge between the cliffs, its caves, and its fine old towers is a scene of much interest and beauty. At Muddebihál Bidekhundi and Basarkod terraces of sandstone run out upon the granite and are in turn capped by the last flows of the Dekhan trap. Few Bijápur Hills are more than 300 feet high. The southern hills belong to the limestones shales and sandstones of the Kaládgi sain. The sandstone hills of south Bijápur form two main ranges, the North Ghatprabha and the North Malprabha hills running irregularly east and west. The North Ghatprabha range begins at the Sahyádris close to the north of Manohar fort about forty miles north-east of Belgaum. The North Malprabha range starts from the Sahyádris near the Tolkhat pass about thirty miles west of Belgaum. The most notable hills of this flat-topped brushwood-capped range are those at Guledgud about ten miles south of Bágalkot and those round Bádámi. About fifteen miles east of Bádámi a group of detached flat-

topped hills capped with sandstone resting on granitoid gneiss rise 300 to 500 feet above the surrounding country. The great plain to the north of the Krishna is unbroken except by a few bare uplands. In the south-west of Indi is a series of uplands covered with speargrass and a few *bábhul* shrubs. South-west of the town of Bágevádi bare trap uplands or downs culminate in two small flat-topped laterite hillocks which are conspicuous within a circuit of ten or twelve miles. In the north-east rise two ridges of low hills. One runs west from Kamankeri to Dindvád; the other of flat-topped laterite begins at a point a little to the east of Masvinhal. In the north-west corner of Muddebihál, a few hundred yards south of the village of Alkopa, is a low range of flat-topped sandstone hills. And in the south of Muddebihál on the north bank of the Krishna a series of low sandstone terraces run out from under the trap. Of the Rivers and Streams the most important are the Krishna and its feeders, the Bhima, the Don, the Ghatprabha, and the Malprabha. All of these are large rivers flowing throughout the year and during the rainy season crossed only by boats. The Krishna rises among the Mahábaleshvar hills on the eastern flank of the Sahyádris. It enters the district near Gehnur, and after a course through the district of about fifty-four miles passes into the Nizám's territory. In dry weather the river breaks into white threads which wind among huge masses of granite and sharp dykes of basalt. When in flood the river is fully a quarter of a mile wide and fills its bed from bank to bank. The Bhima, after passing through Poona Ahmednagar and Sholápur, enters Bijápur at Dasur. Below Dasur it flows east, and, separating Bijápur from Sholápur for about thirty miles, receives the Sina from the left, and leaving Sholápur and skirting Bijápur for fifty miles more enters the Nizám's territory and falls into the Krishna to the east of the Ságar district after a further course of about 150 miles. The ordinary bed of the Bhima is alluvial soil and the rock-bed is about ten feet below low-water level. In Indi the land along the banks of the Bhima is a rolling plain whose monotony is relieved only by the villages. The portion of the Sindgi sub-division on the Bhima banks is a black-soil plain with gentle undulations and is dotted with many rich villages. The Don rises in the Jath state and flows east and then south-east till it turns towards the town of Tálikoti in Muddebihál. South of Tálikoti it enters the Nizám's district of Ságar and after a total course of about 125 miles falls into the Krishna. Along its whole course the Don has steep banks of black soil more than ten feet high. It runs along a narrow valley, on the top of the water-shed between the Krishna and Bhima, whose deep black soil is famous for cold-weather grain crops. The Ghatprabha rises near the edge of the Sahyádris about twenty-five miles west of the town of Belgaum. After passing through Belgaum and the Southern Marátha States, it enters Bágalkot and running through the Krishna valley falls into the Krishna. Where it passes through black soil, the banks are steep and in Bágalkot are closely studded with villages. The Malprabha rises near the edge of the Sahyádris about twenty-two miles south-west of Belgaum and passing through Belgaum and Ráindurg enters Bádámi, and after flowing through Hungund falls into the Krishna at Kapila-Sangam. Where the Malprabha passes through the sandstone country the bed of the river is whitish sand and the water a lovely blue. The country bordering it is hilly, the flat-topped sandstone spurs occasionally stretching three or four miles from the bank. Geologically Bijápur forms four divisions, the gneissic in the south-east, the Kaládgi sandstone in the south-west, the Bhima or Karnál sandstones in the east, and the trap region, including the whole northern half of the district. Gneissic or metamorphic rocks occupy the south of the district east of a line drawn from near Muddebihál to Aiholi. In the main area of gneissic rocks in the south-east of the district, the two chief divisions of gneiss, the schistose and the granitoid, pass in great parallel bands with a north-west and south-east strike. Granite and syenite veins and intrusions are most numerous in the valley of the Krishna. South of the Ghatprabha river and west of Kaládgi is the greatest unbroken area occupied by the limestone series. Over two-thirds of the district the surface rock is trap. The general characteristics of the Bijápur trap area are low rolling downs and shallow valleys. Agates are found in large numbers on the weathered surface at Hanmápur; red bole at Torve near Bijápur, and large crystals of green glassy-looking olivine united with the porphyritic variety of the Dekhan trap. The two leading varieties of Soil are the red, a directly decomposed trap, and the black decomposed trap sandstone and gneiss mixed with organic matter. Soda and potash soils are rare. Large quantities of alkaline salts occur especially in black soil. The most marked instance of these salt soils is the valley of the Don, whose water is so salt that during the hot-weather it becomes almost undrinkable. The climate is dry and healthy. March and April are the hottest months. In May the intensity of the heat is slightly relieved by occasional thunderstorms and days of cloudy weather. The rainfall is extremely irregular varying greatly both in amount and in distribution. The rains begin in the middle of June and are not over till about the middle of November. At Bijápur, during the eight years ending 1893 the average fall was about 26 inches. At almost all times of the year most parts of the district, the Don valley perhaps more than others, are exposed to strong blighting winds. The district of Bijápur ranks relatively high in Mineral wealth. Gold is said to have been formerly found in the Malprabha. Near Kajadoni four miles south-west of Kaládgi are traces of copper. Iron ore is found in various parts of the district south of the Krishna, but as the cost of smelting makes it dearer than imported iron it is never able to command much sale. Small quantities are used for field tools. The several varieties of neiss, green-stone, quartzite, sandstone, limestones, clay-slate and trap are used for building purposes. The extremely beautiful granites and kindred rocks of great variety of colour are capable of taking a high polish. The Forest lands of Bijápur are mostly on the hills to the south of the Krishna and between the Krishna and Dhárwár. They may be divided into two sections, scrub forests and *bábhul* Acacia arabica reserves. The scrub forests are composed chiefly of stunted *mashoŏla* Chloroxylon swietenia, *kakkai* Cassia fistula, *nim* Melia azadirachta, *aval* Cassia auriculata, *hulgal* Dalbergia arborea, *khair* Acacia catechu, *ippi* Bassia latifolia, and *jaune* Grewia rothii. The *bábhul* reserves include the lands which yield *bábhul*, *nim*, bamboo, *jámb ul*, and *bor*. Good timber for building purposes is obtained from the Kánara forests. Besides a sprinkling of cocoa palm and palmyra the chief liquor-yielding tree is the wild date. Other trees found in the district are the mango, the tamarind, the jambul, the jujube, the plantain, the woodapple, the sour lime, the guava, the myrobolan, the papay, the sandalwood, and the African *báobáb* or monkey-bread-tree. Though there is no want of fodder, and though the climate is favourable for rearing animals, imported cattle are generally preferred to the local breeds. The finest district-bred cattle are found in villages bordering the river Krishna. Of oxen there are four kinds, Mudalshimi or eastern, Surti, Málvi, and Deshi or local. The finest of these the Mudalshimi come from Bangalor, Belári, Chitaldurg, and other places in Madras. Except that there are none of the Mudalshimi breed the cows are of the same breed as the oxen. Of buffaloes there are two kinds Gavláru or Gavlis and the ordinary *mhais*. The Gavláru buffalo comes from Nágpur. It has very long horns and is much stouter and gives better milk than the common

BIJA'PUR.

district buffalo. Of sheep there are three varieties Muralgini, Patalgini, and Bhatgini. The best sheep are found in the Bijápur sub-division. There are two kinds of goats, the Kengori which comes from Madras and the Kunyi or Gujarát goat famous for the quantity and quality of its milk. The district is a poor place for horse-breeding, but in many parts, particularly in the Indi and Sindgi sub-divisions, ponies are excellent and cheap. Camels are not bred in the district but are brought from the north and from a place named Ganvad in Sholápur. Asses are kept for carrying pack-loads by Vadars, Ghisádis, Dombáris, and other wandering tribes. Of wild animals the pig is very common. Of late years neither the tiger nor the bear is to be found in the district. The only large game are a few panthers which find shelter in almost all the ranges south of the Krishna. The wolf and the hyæna are pretty generally distributed. The jackal is common everywhere and the fox lives in the open undulating plains of Bágevádi and Muddebihál. Porcupines abound near Bijápur, and monkeys deer gazelles and the common Indian hare occur over most of the district. Of birds peafowl gather in large numbers in the scrub-covered islets along the banks of the Krishna and in the wooded hills of Bádámi. The painted partridge, the gray quail and the rain quail are also found in large numbers. The bush quail the bustard quail and the button quail are not abundant. The common sandgrouse is fairly numerous to the north and the painted sandgrouse to the south of the Krishna. The green pigeon is found in Bágalkot. The common snipe and the jack snipe are cold-weather visitants. The painted snipe appears at times and breeds in the district. Many kinds of duck visit the district and some stay during the year. The snakes are the same as those ordinarily met in the Dekhan. They are neither very numerous nor particularly destructive of human or other animal life. Except the Don, the large rivers of the district are fairly stocked with fish. The chief varieties are *aval*, *báli*, *belchi*, *gogri*, *hadd*, *hanji*, *hasru*, *havu*, *heral*, *jhingi*, *kal-rani*, *kemp*, *kund*, *kurub*, *malag*, *surma*, and *unchi*. Fish are trapped during the rains in irrigated fields and are caught both by rod and line and by net. Agriculture supports two-thirds of the population. The Soil belongs to two main classes black and red. By far the greater part of the open country consists of black soil which has great moisture-holding power. Under manure and a proper system of tillage the red sandy mould, which is chiefly found near the sandstone hills of Bádámi Bágalkot and Hungund, though generally poor, yields fair crops. About 84 per cent of the arable land is occupied for cultivation. With scanty and uncertain rainfall and few irrigation works the district suffers from periodical want of water. The Kondur reservoir about six miles north of Bádámi is the largest and most important of the reservoirs. It is said to have been built before the Muhammadan conquest (A.D. 1290). It has a catchment area of twenty-two square miles, and, when full, covers 530 acres and has a greatest depth of twelve feet. The water never dries and is used in watering 25 acres of land. Of recent irrigation works the reservoir at Muchkundi four miles south of Bágalkot is the most important. It is formed by an earthen dam 65 feet in greatest height and 720 feet long. The area of the lake when full is about 1,059 acres and its contents 765 millions of cubic feet. The catchment area is 28½ square miles. Two canals led off from the lake are designed to command an area of 14,400 acres. The chief Crops of the district are *jvári* Sorghum vulgare, *bájri* Penicillaria spicata, rice *bhát* Oryza sativa, *mug* Phaseolus radiatus, *pávta* Dolichos lablab, *udid* Phaseolus mungo, *chavli* Dolichos catjang, *kulthi* Dolichos biflorus, *tur* Cajanus indicus, *til* Sesamum indicum, and *ambádi* Hibiscus cannabinus. These belong to the *kharif* or early crops. To the *rabi* or late class belong white Indian millet *jvári* Holcus cernus, cotton Gossypium herbaceum, wheat Triticum æstivum, gram Cicer arietinum, linseed Linum usitatissimum, and *kardai* Carthamus tinctorius. *Jvári* is the staple crop and the chief food of the people, *bájri* and wheat are next in importance, and cotton which is cultivated to a large extent is the most valuable crop. The famine of 1876-77 was felt in Bijápur in its greatest intensity.

KOLHA'PUR.

Kolha'pur, between 17° 10′ 45″ and 15° 50′ 20″ north latitude and 74° 44′ 11″ and 73° 43′ 16″ east longitude, has an area of 2,855 square miles, a population of 913,131, and a gross revenue of Rs. 31,97,522. For administrative purposes the territory is distributed over ten sub-divisions, Kárvir, Panhála, Alta, Shirol, Gadinglaj, Bhudargad, Vishálgad, Bávda, Kágal, and Inchalkaranji. Of these sub-divisions, Vishálgad Bávda Kágal and Inchalkaranji are subordinate states with independent jurisdiction. Kolhápur is bounded on the north by the Krishna, which, for sixty-six miles, separates it from Satára; on the east it is bounded by the rivers Krishna and Dudhganga and by the states of Miraj and Sángli and the district of Belgaum; on the south by Belgaum; and on the west by the Sahyádri hills. Kolhápur is an irregular belt of the Dekhan plateau, lying along the east of the Sahyádri crest about sixty-five miles from north to south and eight to fifty miles from west to east. Besides this main irregular belt Kolhápur includes three isolated groups of villages, two to the east and one to the west. Of these the western group of forty-three villages within Ratnágiri limits to the west of the Bávda pass is a bushy table-land with shady well-built villages. The two eastern groups, Ráybág about forty miles south-east of Kolhápur and Katkol and Torgal about forty miles further to the south-east, lying within the Dekhan plain are tame level and bare except for a few low hills and some village and river-side groves. The hill-top Konkan, that is the rough land immediately to the east of the Sahyádris, from 2,000 to 1,800 feet above the sea, is wet and cool. Close to the Sahyádris the scenery is wild and picturesque. Beyond the neighbourhood of the Sahyádris, the valleys of the Varna, Panchganga, Dudhganga, Vedganga, Hiranyakeshi, and Ghatprabha, are rolling plains, their surfaces drained by streams. The hills that flank these valleys rise with bare sides ending in broad table-lands, broken cones, and wasted peaks, many of them fortified. The small villages are built close to the banks of streams or hill-slope springs, with patches of sugarcane and garden crops, and surrounded by tamarind mango or jack groves. The plain country includes the open valleys of the Varna Panchganga Dudhganga and Vedganga. The banks of the chief rivers are fringed with trees and the valleys are dotted with evergreen groves and garden lands. Further east the country, though yielding rich millet sugarcane and tobacco, is bare of trees and passes into the hot region of the Central Dekhan. Its Hills are the chief natural feature of Kolhápur. The Sahyádris running about a hundred miles north and south, throw off six larger spurs which stretching north-east and east divide the Kolhápur plateau into six main valleys. The Sahyádris are full of wild and beautiful scenery, their lower slopes and hollows thickly wooded, and their bluff even-topped heads easily turned into almost impregnable fortresses. The fortified hill-tops are: Prachitgad, Bahirgad, Mahimatgad, Vádi Máchál (3,348), Vishálgad or Khelna (3,350) fortified

with walls which are said to date back to A.D. 1000, Bávda, Shivgad (3,240), Bhairavgad, and Rángna or Prasidhagad a favourite fort of Shiváji's. Within the 100 miles of their Kolhápur course the Sahyádris are crossed by ninety-four Passes, of which three, the Amba pass in the north, the Phonda pass about the middle, and the Amboli pass near the south, are furnished with roads fit for carts and carriages. From the mass of highland close along the Sahyádris, six bare ranges, 700 to 1,000 feet above the plain and crowned by forts or shrines, stretch east and north-east thirty to fifty miles across the Kolhápur plateau. They are: the Vishálgad-Panhála range with the Vishálgad fort (3,348 feet above the sea) and the Panhála fort and Pávangad (1,000 feet above the plain), the Phonda-Savgaon range, the Khánápur-Mudhol range, the Bhudargad-Nipáni range with the important forts of Manohar and Mansantosh, and the fortified hill of Bhudargad with its Kedárling Bhairav and other shrines; the Samangad range; and to the extreme south the Malprabha-Gandharvagad range. Besides these are the Vágjái-Tungjái (700 feet) and Salván hills in Bávda and Mahádev in Inchalkaranji, 800 feet above the plain. Though not strictly a Kolhápur stream, the Krishna, during its connection of about thirty-five miles, is a noble river about 1,300 feet broad in a shallow bed between high banks of earth. Even during the hot weather, when it passes leisurely through deep pools and shallow fords, the Krishna would be navigable for flat-bottomed boats drawing twelve inches of water. Along its banks a fringe of the shrub *shevri* breaks the force of the flood-waters. Within Kolhápur limits the Krishna is crossed by one bridge at Utgaon and by five ferries. Besides the Krishna the Kolhápur Rivers are: the Várna for eighty miles forming the north-eastern boundary of Kolhápur with its chief feeders the Kánesa and the Kadvi which again is joined by five minor streams; the Panchganga formed of four streams, the Kásári the Kumbhi the Tulsi and the Bhogávati, rising in the Sahyádris near the village of Gajápur and falling into the Krishna at Kurundvád; the Dudhganga with its source in the Sahyádris near the Nardava pass, after a course of forty-two miles falling into the Krishna at Kallol within Belgaum limits; the Vedganga rising a few miles north of Rángna and after a course of about thirty-eight miles joining the Dudhganga in the Chikodi sub-division of Belgaum; the Hiranyakeshi rising in the Amboli pass and after a total course of fifty-five miles joining the Ghatprabha near Hukeri in Belgaum; the Ghatprabha rising in the south slopes of the Parpoli pass, and after flowing for twenty-five miles within Kolhápur limits about twenty miles further north-east, joining the Hiranyakeshi five miles south-east of Hukeri; lastly the rocky steep-banked Malprabha, in sanctity next to the Krishna, running through the outlying district of Torgal. Besides by these rivers the lands of Kolhápur are watered by numerous wells and ponds. Except in the south, where are some ridges of sandstone and quartzite, Kolhápur comes within the area of the great Dekhan trap fields. The chief local varieties of trap are basalt, amygdaloid, vesicular, and clayey. The Climate of Kolhápur is temperate, partly from its elevation 2,000 to 1,700 feet above the sea and partly from the prevalence of the sea breeze. Towards the woody rain-drenched Sahyádris the air is always cooler than in the east, which, during April and May, suffers from hot easterly winds. The Kolhápur Season may be divided into the wet cold and hot. The wet season, the healthiest part of the year, with, at the town of Kolhápur, an average rainfall of about forty inches, lasts from June to October. The cold season lasts from November to the end of February and the hot weather from March to June. Iron ore occurs in a few of the eastern Sahyádri spurs. Before 1854 iron was much smelted but the dearness of fuel and the cheapness of European iron have combined to close the local industry. The other Mineral products are building-stone, road-metal, lime, sand, and coloured earth. The wet rugged Sahyádris and their east-stretching spurs give Kolhápur a good forest area. As the spread of people and of tillage had bared the hill-sides of west Kolhápur, which, at the beginning of the century were covered with trees, a Forest Department was organized in 1878. The Kolhápur forests come under two groups: the Sahyádri reserves and those belonging to their eastern spurs and valleys. The Sahyádri forests, which cover about 260 square miles, are scattered over Amba, Pandhrepani, Marshi, Májir, Gajápur, Anaskura, Bávda, and Phonda. The eastern forest-lands in the cool and moist belt to the west of Kolhápur seldom pass twenty miles east of the crest of the Sahyádris. They are distributed over nine chief blocks, the Várna, the Mhásái Páthár, the Asandoli Bhadara Mánbet and Mainghole, the Váki, the Mhasrang, and the Ajra. The chief Trees are the *ain* Terminalia tomentosa, *nána* Lagerstræmia lanceolata, *hirda* Terminalia chebula, *kinjal* Terminalia paniculata, *jámbhul* Eugenia jambolana, and *báva* Cassia fistula. The minor products are bamboos, the myrobolan berry, grass, and honey. The domestic Animals are oxen, cows, buffaloes, horses, camels, asses, sheep, goats, and dogs. Of late years the introduction of Gujarát bulls and Mysore buffalo bulls has improved the local breeds. Surti or half-Gujaráti cows are fair milkers and are much prized in the Krishna-bank villages. Sheep are generally kept by Dhangars and some cultivators for their milk wool and flesh. Goats are of two breeds, white or *kui* and local or *khadki*. Camels are reared by Musalmáns and kept for riding and by the State for commissariat purposes. Except the State horses and those owned by a few of the gentry, which are imported Persians Arabs or Australians, the greater number of the locally bred horses are mere ponies. Asses are kept by potters and washermen and fowls by all classes except Brahmans Lingáyats and Jains. Shepherds and deer-hunters keep a good breed of dogs. Tigers are found in the hills and sometimes prove harmful to human beings and destructive to cattle. The leopard is occasionally found. Panthers are common in the hills and a small variety called the Khadki or Dog Panther prowls about villages and carries off dogs and poultry. Three varieties of wild cat and the hyæna are common in the hills and forests. The Indian black bear is found in the Sahyádri range, the wolf in the plains where it sometimes carries off young children, and the wild boar in the hills. The bison lives in the Barki and Udgin hills, and the *sámbhar* or stag in all hill tracts. Of other varieties of deer are the spotted deer, the *bhekar* Cervulus aureus, and the Indian antelope. The hare and the monkey are common in all parts of the state. The hilly tracts are infested with snakes both poisonous and harmless. Kolhápur has no important fisheries. The state is fairly stocked with game and other birds found in the Dekhan and the Southern Marátha Country. Kolhápur Soil belongs to five main classes: black, red, orchard, rice-land, and white. Of these the black and red soils are the most valuable. About one-third of the arable area is good soil yielding garden crops, about a fourth is middling, and about five-twelfths, especially in the hilly west, is poor. The chief Crops are, of grains *jvári*, rice, *náchni*, *bájri*, *sáva*, *rála*, wheat, *vari*, maize, barley, and *hurik*. Of pulses *tur*, gram, peas, *udid*, *kulthi*, *mug*, *masur*, *pávta*, *math*, and *chavli*. Of oil-seeds carthnut, *korte*, safflower, castor-seed, sesame, and linseed. Of fibres cotton and hemp. Of garden crops sugarcane, chillies, turmeric, and sweet potatoes; and of miscellaneous crops, tobacco coriander and vegetables.

SOUTHERN MARATHA STATES.

SANGLI.

Surrounded by the districts of Sholápur and Sátára on the north, by Bijápur on the east, by Dhárwár and Belgaum on the south, and by Kolhápur on the west lie the eight Southern Marátha Jághirs, Sángli, Miraj Senior and Junior, Kurundvád Senior and Junior, Jamkhandi, Mudhol, and Rámdurg. These territories are scattered over a large number of isolated patches. Of the Southern Marátha States **Sa'ngli** is the largest and most important. It consists of detached tracts extending from the British districts of Sátára and Sholápur in the north to the river Tungbhadra in the south. It has an area of 1,083 square miles, a population of 238,945 or 220 to the square mile, and a gross revenue of Rs. 11,91,836. The territory is distributed over six detached sub-divisions: Miraj-prant, Kuchi, Mangalvedha, Terdal, Shahápur, and Shirhatti. The general aspect of the three northern sub-divisions of Mirajprant Kuchi and Mangalvedha is treeless flat and monotonous. The geological formation is black-gray and a little red soil overlying the basaltic trap rock of the Dekhan. Among the southern sub-divisions Terdal is flat and monotonous in the north, but southwards the country becomes more varied, fertile valleys of fine black and reddish sandy soil lying between low sand-stone hills covered with cactus and thorny shrubs. Shahápur is rough, well-wooded, and full of low rocky hills and valleys. Shirhatti on the west is treeless and flat but has a fertile black soil. On the south and east the country is broken and hilly and covered with boulders of granite and gneiss thrown together in many places in the most fantastic confusion. On the east the hilly country ends in the gold-yielding Kapatgudd range. The chief rivers that run through the state are the Krishna, Bhima, Man, Verla, Agrani, Ghatprabha, Márkandi, and Tungbhadra. The water-supply is ample and the climate though hot is not unhealthy. The average rainfall is about 26 inches. Of Mineral productions gold and iron are procurable in Shirhatti. Excellent basalt is obtained in the northern sub-divisions. A hard crystalline sand-stone of light colour varying from gray to red occurs in Terdal and Shahápur and granite and gneiss in Shirhatti. Saltpetre and carbonate of soda are procurable in paying quantities. The Forests cover about 88 square miles. The most important and oldest forests are in Shahápur which has most of the trees and shrubs found in the uplands of the Sahyádria. The domestic Animals are oxen, cows, buffaloes, horses, ponies, asses, sheep, goats, dogs, and a few camels. In the northern sub-divisions antelopes, gazelles, hyænas, wolves, jackals, foxes, and three or four varieties of the wild cat are pretty common. In Shirhatti in addition to these panthers are found. In Shahápur, except the bison and bear, all the wild animals of the Sahyádris occur. Most, if not all of the birds and reptiles of the Dekhan are met with in one or other of the sub-divisions. Agriculture supports about 32·5 per cent of the population. The Soil though varying in quality is on the whole fertile. Of the 1,083 square miles, 80·66 per cent are arable, 8·16 per cent forest, and 11·18 per cent. unarable. The principal Crops are Indian millet, spiked millet, wheat, rice, Italian millet, *nachni* Eleusine coracana, maize, barley, gram, *tur* Cajanus indicus, *kulga* Dolichos uniflorus, *mathi* Phaseolus aconitifolius, *mug* Phaseolus mungo, peas, *pávta* Dolichos lablab, *masur* Ervum lens, *udid* Phaseolus radiatus, safflower, earthnut, castor seed, linseed, sesame, cotton, tobacco, sugarcane, and turmeric.

MIRAJ SENIOR.

Miraj Senior, with an area of 339 square miles, a population of 88,343 or 260 to the square mile, and a gross revenue of Rs. 3,38,402, is distributed over three detached sub-divisions Miraj Lakshmeshvar and Modinimb. The Miraj sub-division, in the Krishna valley to the east of the Kolhápur state with its capital close to the Krishna about six miles south-east of Sángli, is known for its rich black soil and mango and tamarind groves. The Lakshmeshvar sub-division, in the heart of Dhárwár adjoining the Sángli sub-division of Shirhatti, is dry flat and scantily wooded but the soil is rich. The Modinimb sub-division, north of Pandharpur in Sholápur, is poor and uneven covered with long stretches of rock. The rivers Krishna Várna and Bhima pass through the state. The climate is healthy, the cold season from November to February being particularly pleasant and bracing, and the rainfall averaging twenty-four inches. Of the total area of 340 square miles 90·12 per cent are arable and 9·87 per cent are unarable.

MIRAJ JUNIOR.

Miraj Junior, with an estimated area of 225 square miles, a population of 35,487 or 157 to the square mile, and a gross revenue of Rs. 2,42,018, has forty villages scattered over the British districts of Sátára Sholapur Poona and Dhárwár. The greater part of the state is flat and has rich black soil. Some parts are hilly and treeless. The Krishna runs by Haripur a sacred village at the meeting of the Krishna and Várna. The climate is temperate and healthy, with an average rainfall of 25 inches. Of Minerals a black hard stone useful for building is found. Of the whole area of 208 square miles about five-sixths is cultivated.

KURUNDVÁD SENIOR.

Kurundva'd Senior, with an area of 174 square miles, a population of 43,809 or 251 to the square mile, and in 1892-93 a gross revenue of Rs. 1,39,379, has thirty-seven villages thirty-four in three clusters and three detached. Of the three clusters one called *petha* Gad or Angol with twenty-five villages lies south of the cantonment of Belgaum; a second cluster called *petha* Alás with seven villages lies east of the Kolhápur state; and a third cluster called *petha* Tikota with two villages lies about twelve miles east of Bijápur. Of the three detached villages Shokar lies in the Athni sub-division of Belgaum, Jagulgaon in the Terdal sub-division of Sángli, and Vategaon in the Karád sub-division of Sátára. Except the Angol cluster which is hilly most of the state is flat and treeless. Of the rivers the Krishna is joined by the Panchganga at Kurundvád. Except the Angol cluster the climate of Kurundvád is generally hot with an average rainfall of about 36 inches. The principal crops are *jvári*, *bájri*, rice, wheat, gram, *tur*, *rála*, and sugarcane.

KURUNDVÁD JUNIOR.

Kurundva'd Junior, with an estimated area of 134 square miles, a population of 32,528 or 243 to the square mile, and a gross revenue of Rs. 1,38,817, includes two clusters of villages, one in Belgaum the other to the east of Sholápur. Besides the two clusters the state has two outlying villages, one Gallanhatti near Athni in Belgaum and the other Devankatti near Konkanvádi in Kolhápur. The climate is generally healthy with an average rainfall of 38 inches.

JAMKHANDI.

Jamkhandi, with an estimated area of 555 square miles, a population of 102,162 or 184 to the square mile, and a gross revenue of Rs. 4,54,385, lies chiefly between Belgaum and Bijápur. The territory is distributed over three sub-divisions Jamkhandi Bidri and Kundgol. The Jamkhandi and Bidri sub-divisions lie along the banks of the Krishna and the Kundgol sub-division lies south of Hubli in Dhárwár. Besides these there are seven outlying villages of which Vathár and Shirandra are in Sátára, Mudir and Pátkhat in the Mangalvedha sub-division of Sángli, Yelgund in Belgaum, and Vithalpuri and Dhavalpuri in Ahmednagar. The Krishna runs west to east for about thirty miles through the Jamkhandi and Bidri sub-divisions. The climate is generally healthy with an average rainfall of about 25 inches. In most parts *jvári* and in a few parts rice is the staple crop.

MUDHOL.

Mudhol, with an area of 361 square miles, a population of 61,815 or 171 to the square mile, and a gross revenue of Rs. 2,08,565, is bounded on the north by Jamkhandi, on the east by the Bágalkot sub-division of Bijápur, on the south partly by the Bádámi sub-division of Bijápur and partly by the Torgal sub-division of Kolhápur, and on the west by the Gokák sub-division of Belgaum. The territory is

MUDHOL.

distributed over five sub-divisions called Mudhol Dhavaleshvar Jamgi Machaknur and Lokápur. Except one detached village in Sátára the whole of the state is compact. The general aspect is flat with slight undulations. The greater portion of the surface is black soil, the rest being inferior *mál* land. The *máls* or uplands are mostly covered with spear-grass and stunted acacias and *turvada* Cassia auriculata. The scenery is monotonous and during the greater part of the year, especially in the hot season, the country presents a parched and barren aspect. In the east and west are small ranges of hills about 150 feet high. They are barren except those near Lokápur and Halgali, which are covered with low brushwood used for fuel. The Ghatprabha runs through the state dividing it into two nearly equal parts. Except during the rains the climate is generally healthy and invigorating. The average rainfall is about 24 inches. Of Minerals building stone and lime are found in small quantities. The stone is chiefly black basalt but a red stone also occurs. The Crops are *jvári*, *bájri*, wheat, *rála*, gram, *tur*, *mathi*, *pavta*, cotton, *ambádi*, safflower, sugarcane, betel-leaves, chillies, and plantains.

RÁMDURG.

Ra'mdurg, with an area of 169 square miles, a population of 36,181 or 214 to the square mile, and a gross revenue of Rs. 1,51,832, is a compact country lying between Dhárwár and Bijápur. It is bounded on the north and west by the Torgal cluster of Kolhápur, on the east by the Bádámi sub-division of Bijápur, and on the south by the lapsed state of Nargund which now forms part of the Navalgund sub-division of Dhirwár. The aspect of Rámdurg is generally flat and treeless with slight undulations. The Malprabha runs west to east through the state for about twenty-five miles. Besides the Malprabha five streams run through the state. Of these the Hukeri coming from Mulkavi in Bádámi joins the Malprabha at Sangal; the Tupanihal coming from Paragad runs by Hebbál; the Bennihal coming from Navalgund joins the Malprabha at Menasgi; the Gadagnihal coming from Navalgund joins the Tupanihal at Hebbál; and the Tolnihal coming from Navalgund joins the Bennihal at Osoti. The climate is generally hot and healthy. The rainfall at Rámdurg averages about twenty-two inches. The bulk of the soil is black. The chief crops are *jvári*, *bájri*, rice, wheat, gram, and *tur*.

BELGAUM.

Belgaum, between 15° 23′ and 16° 58′ north latitude and 74° 5′ and 75° 28′ east longitude, has an area of about 4,674 square miles, a population of 1,013,261, and a realisable land revenue of Rs. 21,92,163. It is bounded on the north by the Miraj and Jath states; on the east by the states of Jamkhandi and Mudhol; on the south by Dhárwár and north Kánara; and on the west by Sávantvádi and Kolhápur. For administrative purposes it is distributed over seven sub-divisions, Athni, Gokák, Paragad, Sámpgaon, Khánápur, Belgaum, and Chikodi. Belgaum runs parallel to the Sahyádri hills with a very irregular outline stretching about a hundred miles from north to south and fifty to eighty miles from west to east. Its western parts are rugged with forest or bush-covered hills and have a comparatively damp and cool climate. The rest of the district sloping gently to the east is broken by many ranges of low rolling hills and by bold single peaks and granite rocks. The courses of three rivers, the Krishna the Ghatprabha and the Malprabha, divide the district from west to east into three belts of varied plain and upland. Most of the plain is of rich black soil, but towards the east it is stony and red and in the north are long stretches of bare rock. The west and south are fairly wooded. The southern belt or the valley of the Malprabha is in the west covered with hills and forests, some of the hills, especially to the north of Khánápur, being high rugged and of striking outline. On either side as it draws near the Malprabha the land is more open and there is much level and arable ground broken by gentle downs and sometimes by sudden masses of granite. The banks of the river are fringed with trees and bushes. Further east, in the extreme south, the country is broken by ranges of low hills that run north and south and towards the east become gradually lower and less wooded. Close to the Malprabha the country along both banks merges into an almost treeless plain of black or cotton soil. The deep gorge known as Navil Tirth, the Peacock's Pool, has much beauty and the bold wall-like quartz cliffs of Sogal are adorned with lovely waterfalls and well-grown trees. The villages are generally walled and moderately large and rich with groves of mango jack and tamarind. On the left bank of the Malprabha beyond the ridges which cross the black soil plain is a low rolling plateau of sandstone hills very stony and barren. The Ghatprabha valley, or the central belt, beginning in the west among rugged forest-clad hills, changes eastwards near Dadi and Pachápur into a waving plain broken by lines of low hills whose sides have a scanty covering of stunted teak. Near Gokák the plain is broken by ranges of low rather bare sandstone hills through one of which the Ghatprabha forces its way in the famous Gokák falls. Close to the falls is the Márkandeya gorge, also a spot of great beauty. A peculiarity of the Gokák trap hills which are flat-topped and terraced is that the sides are covered with trees and only the tops are tilled. In the northern belt, the water-parting between the Ghatprabha and the Krishna, is marked in the west by some plateaux of poor soil, 300 to 400 feet higher than the plain, and further east it is marked by low rolling bare hills. The banks of the Krishna are thickly clothed with *bábhul* trees. North of the Krishna is a belt of deep rich soil with many small villages of thatched houses. Beyond this rich belt the country gradually rises in waving downs. The upper valley of the Don is very fertile and grows unwatered wheat. Here and there the dull bare plain is broken by steep solitary peaks and granite rocks. Every five or six miles, marked by a few *nim* and tamarind trees and brightened by garden patches, stand the sites of villages of flat mud-roofed houses surrounded by more or less ruinous walls. Except some parts of Athni in the north and of Sampgaon in the south the district is thickly covered with ranges of Hills. The water-parting between the Ghatprabha and the Krishna, which may be called the North Ghatprabha Spur, rises in the Sávantvádi state. After running north-east for more than thirty miles it turns nearly east till it reaches Chikodi. Among the sandstone masses which form this spur the chief are the table-topped and iron-clay-capped hills of Vallabhagad or Hargápur (560 feet high), Pátijargudd (270); the flat-topped hills of Mallayan or A'digudd (630), Julapengudd (730), and Nágarbál (850); of Nágarpachmi (390), Jogigudd (875), Nirvánepan (710), and Shedur or Rásubái (670). From Chikodi the main spur passes east right across Belgaum. The second great spur may be called the North Malprabha Spur. Starting from the north side of the Tolkat pass about twenty-four miles west of Belgaum it rises into the high ridge known as the Kúsar Sudda. Of the hills which form the North Malprabha Spur the two most noticeable are Párgad and Kálánandigad. The peaked hill of Párgad is so steep that it has to be climbed

BELGAUM.

by rock-cut steps. The highest point of the range is the hill-fort of Kálánandigad between 800 and 900 feet above the plain. The Gandharvagad hill with a ruined fort has rather bare sides. At Rájgoli, a little to the east of Gandharvagad, the main spur is crossed by the narrow valley of the Támraparni. In this part of the district, especially to the north of Belgaum, are long sandstone ridges with grass and brushwood-covered sides and nearly level tops none of them more than 300 feet high. Besides these main ranges three important but minor spurs, the Mahipálgad ridge the Bailur ridge and the Jamboti ridge, stretch east from the Sahyádris. The hills forming the Mahipálgad and Bailur ridges are lofty, their bases large, and their outlines bold and striking. Bailur is the highest point in the district, rising 3,491 feet above the sea. The Jamboti ridge has the special interest of being the most southerly mountain mass within the Dekhan trap area. Among the isolated hills unconnected with the Sahyádri spurs some lie to the north of the Krishna, some to the north of the Ghatprabha, and some both north and south of the Malprabha. Of the more important hills of this class is the Manikeri ridge of reddish drab quartzite beds capped with trap. The t p commands a wide view in which the objects of most interest are the Gokák falls and the Gokák scarp. The principal Rivers running through the district are the Krishna the Ghatprabha and the Malprabha. None of these rivers is navigable. All three have worn deep courses through the surface black soil and laterite and most of their banks are covered with *bilhul* trees. The Krishna, after passing through Sátára and parts of Sángli Miraj and Kolhápur, enters Belgaum at the village of Ganeshpur about twenty miles north of Chikodi. In its course through the district it is joined by the Panchganga the Dudhganga and the Vedganga. After passing through the Hatybág division of Kolhápur and being joined by the white-flowing Dudh Nalla or Milk-stream it enters Athni and receives the waters of the Agrani from the north. Then running south-east and turning north-east it enters Kaládgi near the village of Janvád. The monsoon freshes fill the river-bed from bank to bank, and as a rule from June to December the volume of water is large. The Ghatprabha rises in Sundergad and runs for a hundred miles till it joins the Krishna at Kundli-Sangam, about thirty miles north-east of Kaládgi. After flowing about thirty miles north-east through Kolhápur the Ghatprabha enters the district north of the village of Shedibál. Before it enters Gokák it receives the waters of the Támraparni and the Hiranyakáshi. Three miles to the west of Gokák rushing through a rugged and picturesque gorge between two ranges of sandstone hills and dashing over a cliff about 175 feet high, the Ghatprabha forms the falls of Gokák whose thundering roar is heard for about five miles round. Two miles below the falls the river receives the Márkandeya. From Gokák the Ghatprabha runs north-east and passes out of Belgaum into the Mudhol state. Unlike the Krishna and Ghatprabha, which rise beyond the limit of the district, the Malprabha has its source among the eastern Sahyádri slopes, about eight miles west of Jamboti in Khánápur. After passing through Sampgaon and crossing Paragad it leaves the district and enters the Torgal state. Four miles north of Saundatti the Malprabha rushes violently through a gorge in the Manoli hills. Near Manoli the Malprabha receives the Bonákatti, a stream which rising in the trap hills near Sategiri has a southerly course of about twenty miles. Besides these three main rivers, where, in the south-west, the district stretches to the crest of the Sahyádris, the Mahádáyi, a feeder of the Goa river, and the Tilári, a small river near the Rám pass, drain westward through clefts in the crest of the Sahyádris. Geologically the district forms three great belts. In the south is a narrow strip of gneissic rock; in the centre are quartzite and limestone partly overlaid by two great bands of trap; and in the north and west are trap and iron-clay. Within Belgaum limits the gneissic rocks form a belt that stretches across the south of the district varying in breadth from two to six miles. The rocks met with in the gneissic series are divided into two great groups, the granitoid which are highly crystalline and massive and the schistose which are less crystalline and often strongly foliated and distinctly bedded. A band of granitoid gneiss crossing the Malprabha and numerous dykes having a north-east to south-west course appear in the Katbárigad valley. Another granitoid band forms some noticeable hills at Ganibáil. A very broad band of schistose rocks appears in the upper valley of the Malprabha at Báil Hongal. Within Belgaum limits the rocks that belong to the Kaládgi series are of two leading varieties, quartzites and limestones. The quartzites are found in a line that runs from Daddi in the west to Rámdurg in the east. The limestones occur in an inner basin in the eastern centre of the district. The north half of the district and two great spurs, one that runs from near Gokák south-east to near Rámdurg and the other that runs from Belgaum about twenty-five miles north-east, that is about three-fourths of the district, are trap, the chief varieties of which are basalt, amygdaloid trap, vesicular trap, and clayey trap. By far the commonest rock is basalt. Volcanic ash-beds are found in the flanks of Vallabhgad and in the north Ghatprabha range between Chikodi and Valur in south Kolhápur. Small agates are found in large numbers on the weathered surfaces on the ridge north of Chinchni three miles west of Chikodi, at Kurgaon eight miles south-east of Chikodi, and near Hamámságar twenty miles south-east of Gokák. Calcspar occurs frequently both in basaltic and in amygdaloid traps. Magnetic iron is spread in considerable quantities through the mass of the basaltic and doleritic trap. Arragonite is occasionally found in doleritic trap flows. Red bole is frequently present in amygdaloid beds and in some volcanic ash-beds, as in the slopes of Vallabhgad in Chikodi. The traps in many parts of the district are overlaid by an iron-clay rock. Within Belgaum limits the three best sections of the Dekhan trap iron-clay are at Kálánandigad Vallabhgad and Páijargudd. A very extensive show of lateritoid iron-clays occurs at and to the east and west of the Rám pass. The silt of the several rivers consists almost entirely of alluvial regur or black soil with some beds of sand and gravel frequently cemented by limestone nodules into coarse conglomerate Almost all the larger Karnátak rivers have on their banks deposits of gravel and shingle sixty to eighty feet above ordinary flood level. Pluvial aggregations are common chiefly on the slopes of trap hills and at the sides of some of the larger valleys. Large tracts of the quartzite region along the northern slope of the hills north-east of Mamdápur in Gokák are covered with almost pure sand. The moderate heat, the early and fresh sea-breeze, and its altitude above the sea make Belgaum pleasant and healthy. The most agreeable climate in the district is in a tract parallel with the crest of the Sahyádris between the western forests and the treeless east. The cold and dry season lasts from mid-October to mid-February, the hot and dry season from mid-February to early June, and the wet season from early June to mid-October. The heats of April and May cause occasional heavy showers attended with easterly winds, thunder, lightning, and sometimes hail. Even in May the nights are cool, almost chilly. Dew forms from sunset to sunrise and is sometimes as freshening as gentle rain. Near the Sahyádris the south-west

moonsoon is very constant and heavy. Further east it is fitful, falling in showers separated by breaks of fair weather. The eastern villages sometimes suffer from a scanty fall, but a total failure of crops from drought is unknown. The average rainfall for the whole district during the eight years ending 1893 was about 49 inches. From March to September the prevailing winds are from the west and south and from October to February from the east and north. Of Mineral products diamonds are said to have been found in the sandstone towards the Kolhápur side and gold in the valley of the Malprabha. Iron was formerly made in Belgaum Gokák and Sampgaon and near the Rám pass. The ore is generally peroxide of iron with a mixture of clay quartz and lime. All the laterite of the district is charged with iron though in too small a proportion to make it worth smelting. The manufacture of iron has now ceased partly on account of the increased cost of fuel and partly because of the fall in the price of iron. Besides iron the only metallic ore which occurs in any quantity is an earthy powdery form of binoxide of manganese which is found among weathered dolomite at Bhingad. The stone quarries of the district furnish for building purposes green basalt or trap, gneiss, quartzose sandstone, gray sandstone, and laterite. Besides a few square miles of private forest the area of Government forest is 494 square miles. The commonest trees are the *jámbul* Eugenia jambolana, *kumba* Careya arborea, *mati* Terminalia tomentosa, *harda* T. chebula, *hela* T. bellerica, *páiri* Ficus cardifolia, *kel* Ficus infectoria, *úmar* F. glomerata, *kindali* Terminalia paniculata, *bána* Cassia fistula, *karanj* Pongamia glabra, *anjan* Memecylon edule, *nána* Lagerstræmia lanceolata, *ávla* Phyllanthus emblica, small bamboo, and *kárvi* Strobilanthus grahamianus. There is a sprinkling of *jámba* Xylia dolabriformis, *sisva* Dalbergia latifolia, *shemba* Acacia concinna, and other acacias, *hasan* Pterocarpus marsupium, *ápta* Bauhinia racemosa, *pakas* Butea frondosa, and *pángara* Erythrina indica, but no teak. Of these trees *máti*, *jámbul*, *nána*, *harda*, *sisva*, and *hasan* yield valuable timber; *kárvi* and small bamboos are useful for fencing and roofing, and *kumba* is chiefly used for field tools. Of minor forest produce the *harda* and *hela* furnish myrobolans and the *shemba* supplies the *ritha* or soapnut which is used in cleaning clothes. Among fruit trees are the mango, the jack, the custard-apple, the bullock's-heart, the cashewnut, the *jámbul*, the *bel*, the woodapple, the pumelo, the sweetlime, the citron, the lime, the orange, the *kokam* Garcinia purpurea, the *ávla* Phyllanthus emblica, the *bor* Zyzyphus jujuba, the *turan* Zyzyphus rugosa, the *guti* Zyzyphus xylopyra, the tamarind, the *agasti* Agati grandiflora, the horse-radish tree, the guava, the pomegranate, the *papai* Carica papaya, the *karanda* Carissa carandas, the fig, the mulberry, the plantain, and the pineapple. Several varieties of grasses creepers mosses and lichens are found in the district. A very large number of English flowers have been grown from seeds or from cuttings. The domestic Animals of Belgaum are elephants, camels, horses, mules, donkeys, buffaloes, cows, goats, sheep, pigs, dogs, and fowls. Elephants are used by the Commissariat for transport and by a few rich natives for show. Buffaloes do not thrive on the Sahyádris though a few are kept in most villages. The best buffaloes come from Sampgaon and Gokák and the country to the east. They are of four breeds, *gavli* or *hanbari* so called because they are reared by milkmen of the Gavli and Hanbar castes, *nagdi*, *javári* or *deshi* that is local, and *dhangari* so called because they are kept by shepherds or Dhangars. The Gavli breed, which is weaker and smaller than the *nagdi*, have slender bent horns and the *nagdi* breed have long straight horns. Except that it is taller and stronger the *dhangari* breed differs little from the country breed. There are eight breeds of bullocks: *Sorti*, *Mudla*, *Kundalvari*, *Nagdi*, *Dhangari*, *Khilari*, *Hanabari*, and *Chilhar*. Of the first four, the *Sorti* or south Káthiáwár bullocks are the strongest and largest about 13½ hands at the shoulder. They have thick black horns large ears and long thick tails. The *Mudla* bullocks are strong active and of middle size, and have straight long horns slender tails and small ears. The *Nagdi* bullocks are short stout and active. The *Kundalvari* bullocks, the weakest of the first four breeds, have large ears long tails thick hair and bent horns. The *Dhangari* and *Khilari* bullocks differ from the *Hanabari* and *Chilhar* bullocks by having longer faces and being stouter taller and larger. Of goats there are four breeds, *Deshi*, *Kumyadu*, *Kuisheli*, and *Dhangari*. The country breed has longer legs than the *Kumyadu* and the *Kuisheli* goats are short and white and yield specially good milk. There are three kinds of sheep, country, *Kenguri*, and *Yelga*. Country sheep are either white or black and their wool is somewhat stronger than the *Kenguri's* wool, which is red soft wool. The *Yelga* sheep is either white or red. Numerous varieties of wild animals are to be found in the district of which the more important are the black and red faced monkey, the common musk-shrew, the black bear, the Indian badger, the common Indian otter, the tiger (not very common), the large panther, the leopard-cat, the Madras mongoose, the Indian wolf, the common Indian jackal, the Indian fox, the common porcupine, the wild pig, the sámbhar, the spotted deer, the four-horned antelope, and the bison. Of birds the principal are the black vulture, the Indian sparrow-hawk, the tawny eagle, the white-eyed buzzard, the pale harrier, the common kite, the Indian screech-owl, the common swallow, the Indian swift, the jungle nightjar, the brown-headed kingfisher, the great hornbill, the blackbacked woodpecker, the banded bay cuckoo, the red honey-sucker, the Indian gray shrike, the Malabár whistling thrush, the whiteheaded babbler, the black ghát bulbul, the Indian black robin, the blackcapped field wagtail, the carrion crow, the common myna, the Madras bushlark, the southern green pigeon, the painted sand grouse, the jungle bush-quail, the Indian bustard, the curlew, the pheasant-tailed jácana, the common blue heron, the cattle egret, and the flying fox. Snakes are common everywhere especially on stony ground. Of poisonous snakes the cobra and *phursa* are perhaps the commonest. Pythons are occasionally seen and little green snakes are numerous. Crocodiles are common in all the larger streams. Fish in abundance, but for the most part small and of little value, are caught in the Malprabha, Támraparni, Ghatprabha, and Márkandeya, as well as in the smaller streams and ponds. Besides being netted fish are trapped in irrigated fields. Rod fishing and long-line fishing are occasionally resorted to where the water is too deep to dam. The chief freshwater fish caught in rivers and ponds are the *aval*, *bali*, *bám*, *dhoke*, *godach*, *gámchéli*, *ghogra*, *harápi*, *hánu*, *kute*, *kavli*, *kulogi*, *kavnya malaq*, *muluga*, *purji*, *sannat*, and *thunga*. Agriculture supports about seventy per cent of the people. The Soil may be divided into two classes, black and red. The red soil is generally found all along the western border, it also occasionally occurs in the plain country as in the tableland between the Ghatprabha and the Krishna and in the Belavádi and Ambadgatti village groups of Sampgaon. This red soil is mostly coarse and poor, and, as in these western parts the rainfall is plentiful, the chief products are the early or *kharif* crops. The black soil covers most of the plain country and is best suited for the growth of cotton, Indian millet, wheat, and gram. Near the sandstone hills in Chikodi Gokák and Parasgad the soil is little better than sand. This sandy soil does not want much rain, but it wants constant enriching, and, with the aid of manure, yields fair crops of cereals pulse and oilseeds. Of the improved reservoirs the chief is the Gaddekeri lake about fifteen miles south-east of Belgaum. It has an area of 126 acres and a maximum depth of five feet. The catchment basin measures 4·62 square miles and the average rainfall is 26·53 inches. The most important water-work is the Gokák canal. A

BELGAUM.

masonry weir has been built across the Ghatprabha where its catchment area, including that of its chief tributaries the Tamraparni and the Harankáshi, is about 1,100 square miles of which a large extent lies in the Western Ghat range. To the north is the great trap area of the Dekhan, and to the south the granitic formation of south India. Between these formations the band of crystalline sandstone, which forms the Gokak Fall, gives command of an area of about 750 square miles. The storage works and the first section of the canal have been completed at a cost of Rs. 4,97,509. Belgaum crops belong to three classes, early rain or *tusi*, main rain or *kharif*, and cold-weather or *rabi*. Under the first or *tusi* class come *nachni*, *udid*, *til*, maize, and *rala*. The middle or *kharif* crops include Indian millet, spiked millet, rice, *math*, *tur*, *kulthi*, *mug*, *pávta*, *javas*, *táy*, and *ambadi*. The leading cold weather or *rabi* crops are gram, wheat, cotton, tobacco, castor, and safflower. Sugarcane is grown mainly in Chikodi Belgaum Sampgaon and Khánápur. The district suffered severely and recovered slowly from the famine of 1876-77.

DHA'RWA'R.

Dha'rwa'r, between 14° 17′ and 15° 50′ north latitude and 74° 48′ and 76° east longitude, has an area of 4,603 square miles, a population of 1,051,314, and a realisable land revenue of Rs. 30,47,462. The district is bounded on the north by Belgaum the Rámdurg state and Badami in south Bijapur; on the east by the Nizam's territory and the Bellari district of Madras; on the south by Mysore; and on the west by North Kanara and the sub-division of Khanapur in Belgaum. It is distributed over eleven sub-divisions, Dhárwár, Kalghargi, Navalgund, Hubli, Ron, Gadag, Bankápur, Hángal, Kod, Ránebennur, and Karajgi. The Poona-Harihar road divides Dhárwár into two parts, an irregular belt of hilly and woody country to the west from five to twenty-five miles broad, and to the east a bare plain stretching about sixty miles to the north-east. In the narrow western belt the soil is red and gravelly and the country hilly and woody with abundant water. The villages are generally close together on rising ground with shady sites. The north and centre have large areas of watered rice-land, and the south of rice sugarcane and betel-palm gardens. To the east of the Harihar road in the north and centre of the district the plain is a broad stretch of black soil, flat and bare except for a few ranges of low bushy hills. The western belt is part of the rough wooded country along the Sahyádri water-shed. All along in the extreme west the country is wild with woody hills 100 to 300 feet high. Throughout this western belt ranges of low bushy hills 300 to 700 feet high run in parallel lines north-west and south-east. Towards the east the hills gradually grow barer, less rugged, and more isolated, and are separated by broad rich valleys whose tillage spreads up the lower slopes. In the south these lines of hills and isolated peaks are higher and pass further east than in the north. They are better wooded and the valleys between them are more highly tilled. In the eastern belt the country is rocky, bare, and uninteresting, broken by ranges and blocks of stony bush-covered hills. To the north of these hills the black soil valley of the Varda crosses the district from west to east. The gold-yielding range of Kappatgudd stretches thirty miles north-west from the Tungbhadra, its three or four lines of bare hills rising near Dambal in a steep flat ridge about 1,000 feet above the plain. North-east from Dhárwár and Hubli across the whole breadth of the district a black-soil plain, broken by a few isolated sandstone peaks 300 to 700 feet high, drains north-east into the Bennihalla and other tributaries of the Malprabha. Dhárwár has five chief ranges of Hills the Buddangudd in the west, the Airani in the south-east, the Kappatgudd in the east, and two nameless ranges in the south. The Buddangudd range is about eight miles long from north to south and about a mile broad. Its highest peak rises about 500 feet above the plain. The hills forming the range are steep, with ridged tops, and are covered with grass and brushwood. The Airani range with a break of five miles runs ten miles from north-west to south-east. The hills of this range are 200 to 700 feet high, those in the north being bare and those in the centre and south covered with brushwood. The Kappatgudd range of iron-clay and slate with traces of gold rises a little to the south-west of Gadag, and, with ridged or pointed crests, covering a tract four to five miles broad, stretches about thirty miles south-east to the Tungbhadra. The hills of this range are 300 to 400 feet high. They are bare even of brushwood, with steep sides and irregular outline, broken by conical and rounded peaks. Of the two parallel ranges in the south which rise 400 to 600 feet from the plain the northern stretches fourteen miles east and west and shuts out the Masur valley from the north of Kod. Four to ten miles further south is the southern range which forms the boundary between Kod and Mysore. This range is steep and narrow. Its highest hill is Hárávli (600 feet) scantily covered with trees. Besides these ranges detached hills are dotted over most of the district. The only two Rivers of importance are the Tungbhadra on the south-east and the Malprabha on the north-east which bound the district on those sides without passing within its limits. Two streams the Tung and the Bhadra rise in the south-west frontier of Mysore, and, after north-easterly and north-westerly courses of fifty to sixty miles, near Kudli in Mysore, join to form the river Tungbhadra. The united stream, after a winding course of about thirty-five miles, touches Dhárwár in the extreme south-east, and, from that point, winds north-east about eighty miles till it enters the Nizám's territory and falls into the Krishna after a total course of 400 miles. During its course the Tungbhadra receives the drainage of the southern half of Dhárwár. It has three large feeders the Varda, the Kumadvati, and the Hirehalla. The Varda rising in a hill near Ikeri in north-west Mysore, after a northerly and north-easterly course of about forty miles, enters Dhárwár at the village of Gondi and after winding north-east and east for about fifty miles falls into the Tungbhadra. The Varda's chief feeder is the Dharma, which rising in the Sahyádri hills about twenty miles south-west of the town of Hangal and running a north-easterly course of about thirty-five miles falls into the Varda about seven miles south of Bankápur. The Kumadvati rising in north Mysore after a northerly course of about forty-miles enters Dhárwár about two miles to the south of Masur in Kod, and, passing through a gap in the low range of hills in the south of that sub-division, after a north-easterly course of about twenty-five miles, falls into the Tungbhadra near Mudenur. The Hirehalla rises in the Kappatgudd hills near Lakundi about seven miles south-east of Gadag and after flowing south about twenty miles joins the Tungbhadra at Rati. The Malprabha forming the north-east limit of the district for about sixteen miles receives the drainage of all the Dhárwár streams which flow to the north and north-east. Its chief feeder is the Bennihalla or Butter-stream which rises at Dhundshi in Bankápur, and, after flowing through Hubli Navalgund and Ron, falls into the Malprabha. Near Navalgund the Bennihalla receives from the north the Tuphrihalla or clarified butter-stream. The Gangávali or Bidtihalla river which falls into the sea between Gokarn and Aukola

has its source in Dhárwár. Dhárwár contains specimens of granite, transition rocks, old red sandstone, trap rocks, and an iron-bearing claystone. At Ron granite is found with a dark-red felspar with small scattered crystals and minute veins of quartz. North of Gadag the hypogene schists and granite stretch to Gajendragad in south Bijápur where they are covered by sandstone. On the road northwards from Lakmeshvar in Savanur, granite occurs in low bosses and detached blocks and rises into a few clusters at the town of Kul Mulgund. In Bankápur numbers of granite boulders lie in unbroken lines generally parallel with the ranges of hills but sometimes stretching more north to west. Transition rocks fill a large part of the district. They stretch from the east and south where they succeed the granite to the western foot of the Sahyádris. In the north transition rocks are found only in the bottoms of the valleys which cross the sandstone hills, and in the centre and south they are covered by large plains of black cotton soil. To the west of Dhárwár the transition rocks form parallel ranges with a general south-east direction. The chief rocks of this series are clay-slate, chlorite schist, talc-slate, gneiss, limestone, and quartz. The Rocks composing the hills round Dhárwár are schists passing into slates and shales. The general structure, which is perhaps more schistose and shaly than slatey, varies from a massive and obscure slate to fine plates and from compact and flinty to soft and sectile. Chlorite-slate is widely distributed through the centre and south of the district. The rocks which form the Kappatgudd ridges of hills and the neighbouring country for miles together belong to the gneiss formation. Gneiss is also seen at Lakmeshvar in Savanur. Talc-slate occurs in the centre of the district where it is frequently mixed with quartz, and the rock has the general appearance of mica-slate. In the south-east of the district, potstone and soapstone are found associated with the talc-slates. In the north-east of the district limestone of a yellowish gray blue and whitish colour is found. In the whole country from Dhárwár to beyond Kittur in Belgaum the quartz occurs in large beds forming summits of parallel ranges of hills. Old red sandstone occupies all the north-east corner of the district. It also forms the summits of the Navalgund and Nargund hills, on all of which it appears in large tabular masses. Trap rocks do not occur in great abundance. Granite and greenstone dykes are occasionally seen at the base of the hills west of Dhárwár and Hubli. From Hubli south to the Mysore frontier such greenstone dykes become more frequent. Near the centre of the Kappatgudd hills an immense dyke of basaltic greenstone emerges from the base of the strata. Iron-bearing clay-stone or laterite occurs in different parts of the district but chiefly in the west. The Climate of Dhárwár is on the whole healthy and agreeable. The year may be divided into five Seasons. Shower months from mid-April to early June; south-west rain months from June to October; north-east rain months October and November; cold months from December to mid-February; and hot months from mid-February to mid-April. The first signs that fresh south-west rain is beginning are the morning fogs that often cover the country till about nine o'clock in March. The air is hottest about the beginning of April, the temperature sometimes rising to 100° or 103°. Towards the end of May the wind begins to blow stronger, banks of clouds gather in the south-west, and in the west early in June, about a week after it has broken on the coast, the regular south-west rains set in. Throughout the district, during December and January, the days are clear and cool, the nights cold, and the east wind bleak dry and piercing. The average rainfall during the eight years ending 1893 was 23 inches. Parts of Dhárwár are believed to have formerly yielded a considerable amount of gold. Even now the neighbouring villagers yearly wash small quantities of gold dust out of the sand of the Doni in Gadag and of some of the Kod and Ránebennur streams in the south and south-east. Besides gold, manganese is found in considerable quantities. Iron is smelted in some parts of the district. The local building stones are iron-stone, blue basalt, granite, slate, sand-stone, quartz, and flint-stone. Sand and limestone are also found. A large portion of Dhárwár is almost treeless. The Forest area (171 square miles) belongs to two divisions, the moist forest in the western sub-divisions of Dhárwár Kalghatgi Bankápur and Hángal, and the dry forests in the eastern and southern sub-divisions of Gadag Karajgi Ránebennur and Kod. Hubli and Navalgund are bare of trees. Teak prevails throughout the whole of the Dhárwár Kalghatgi and Bankápur forests; towards Hángal it almost disappears. Many kinds of bamboo also occur whose strength lightness and elasticity make them most useful and well suited to the wants of the people. The dry forest lands are mostly dry stony hills with a covering of scrub and thorn. Among the scrub the chief trees and bushes are *bándurbi* Dodonœa viscosa, the acacias and cassias, *khair* Acacia catechu, *phulate bábhul* Acacia lat onum, and *bábhul* Acacia arabica. The most important minor forest products are honey charcoal and bamboos. The most important trees and plants are *hirda* Terminalia chebula, *umbar* Ficus glomerata, *apta* Bauhinia racemosa, *nána* Lagerstræmia macrocarpa, *sisu* Dalbergia latifolia, *chandan* Santalum album, the jack-tree *phanus* Artacarpum integrifolia, *chinch* Tamarindus indica, *bhirand* Garcinia purpurea, and *ság* Tectona grandis. The chief fruit trees are the fig, plantain, citron, cashewnut, *jámbul*, mango, lime, guava, sweetsop, custard apple, and cocoa palm. Many exotic plants flowers and vegetables are grown in Dhárwár. Dhárwár is not a cattle-breeding country. The demand for cattle is supplied from other districts. The chief domestic Animals are oxen, cows, buffaloes, sheep, goats, horses, and asses. The district is fairly off for game. Almost every kind of game that is found in southern India occurs in Dhárwár. Of large game the tiger is found in the Dhárwár, Kalghatgi, Hángal, and Bankápur forests. The panther and the leopard-cat are met with in the western forests, and the hunting leopard is common in the Kod and Gadag hill ranges. The Indian black bear, the bison, the Indian wolf, the jackal, the wild dog, the wild boar, and the hog are also found in the district. Several varieties of the deer tribe are met with in most parts of the district. Of small game the common wild cat breeds everywhere. The tree cat is common in Dhárwár itself and often takes up its abode in the roofs of houses. The river otter lives in most large rivers and streams. The porcupine and the hare are very common in the hilly and fo est parts. Of game birds the sand grouse abounds in the red soil sub-divisions. The peacock the gray junglefowl and the red spurfowl are common in all the forests bordering on Kánara. Pigeon, partridge, quail, the Indian bustard, and duck are widespread and the best snipe shooting is in Dhárwár, Kalghatgi, Bankápur, Hángal, and Kod. The chief snakes are the cobra, the Indian rat snake, the chain viper, the tree snake, the *phurso* Echis carinata, the bow snake, and the chequered water snake. The rivers streams and lakes are fairly stocked with fish. The chief kinds are the *ahvi* a large eel-like river fish, the *andhi machi* or blind fish said to grow to 120 pounds weight, and the *bám* or eel said to grow to as much as six feet long. Other fish are the *bárh*, the *chadvi*, the *dók*, the *gojal*, the *gojra*, the *hargi*, the *jháni*, the *khavali*, the *kuch*, the *kolas*, the *kongyai*, the *katwira*, the *marah*, the *muchála*, the *murangi*, the *murgode munia*, the *phatar chátu*, the *rálu*, the *surseal*, and the *zinga*. Besides by the rod hook and net, fish are caught by damming streams, by stupefying them with the juice of the milkbush or the powdered *mungarikai* nut, and by basket traps called *kunia*.

DHÁRWÁR.

According to the 1891 Census agriculture supports about 63 per cent of the population. For tillage purposes the district is divided into the *malládu* or *malnád* that is the damp west and the *beilu shime* or dry east. The *malládu*, the tract on the border of the Kanara forests in the west and south-west of the district, is most favourable to the growth of rice and sugarcane. The *beilu shime* or dry eastern plain is best suited for dry-crops, especially for cotton gram and wheat. The best soil called *kagadili* is a red mould formed of a fine iron-bearing gravel mixed with quartz pebbles and clay-slate. Where the chlorite schists and clay-slates predominate the soil is a light coloured loam of great depth called *jadi manu*, which is the true rice soil. The soil in the valleys or lowlands is of superior richness. It is black or a rich dark-brown and may almost be classed under the head of alluvium. It yields luxuriant after-crops and its abundant moisture makes it specially suited for sugarcane. By far the greater part of the open country is black ground or *yeri bhumi*, of which the chief crops are cotton, wheat, gram, oilseeds, and the later varieties of Indian millet. Most of the Ponds and Reservoirs in the district are old works believed to date from the Vijáyanagar kings (A.C. 1335 - 1570). Of these the chief are at Háveri in Karajgi, at Nágnur in Bankápur, and at Dambal in Gadag. The Háveri lake is one of the largest and most important reservoirs in the district. It has a catchment area of sixty-nine square miles and a full surface area of 647 acres. The work is provided with two waste weirs of a total length of 350 feet. The Nágnur lake has an earthen dam 3,400 feet long, whose water-face is protected by a massive dry-stone wall. This lake is so shallow that on an average the water lasts only for six months after the rains cease. The Dámbal lake is said to be about 300 years old. A recent survey has fixed the area of water surface at 300 acres and the capacity at 14½ millions of cubic feet. The catchment area measured forty-six square miles. The only important system of canal irrigation is on the south bank of the Dharma river. The work is about three hundred years old, but most of the masonry is stones taken from Jain or Chálukyan temples. The head-works are at Shringiri. A solid masonry weir thrown across the stream raises the water a few feet and two canals are led off one on each bank. The left bank canal called the Kamanhalli canal is about three miles long; the right bank canal known as the main Dharma canal is seventeen miles long. Among Crops the most important are Indian millet, *rági* Eleusine corocana, *sáve* Panicum miliare, wheat, rice, tobacco, sugarcane, chillies, and cotton. The cultivation of cotton is the most important agricultural occupation in the district and the efforts to improve its quality have been singularly successful, as the American varieties have established themselves and are recognized to be superior to the native cotton. Dhárwár suffered grievously from the famine of 1876-77.

SAVANUR.

Savanur, with an estimated area of seventy square miles and twenty-five villages scattered through the Dhárwár sub-divisions of Bankápur and Karajgi, has a population of 16,976 or 239 to the square mile, and a gross revenue of Rs. 90,810. Round the town of Savanur, which is about forty miles south-east of Dhárwár, the state lands stretch about thirteen miles west and east and about nine or ten miles north and south. Except in the west, where are low scrub-covered hills, the country is flat and rather bare of trees. The river Varda on its way through Karajgi touches the south-east boundary of Savanur. The climate is hot but the rains are abundant though not excessive. Within Savanur limits is only one forest at Mulakari. Tamarind, mango, *nim*, and *bábhul* trees abound in all the villages. The soil of the northern eastern and southern villages is both red and black and that of the western villages is red. The Crops are the same as those grown in Dhárwár. Cotton is the chief crop in black soil villages and large quantities of cocoa and betel-palms and betel-vines are grown at Savanur. The average rainfall is about 25 inches.

KÁNARA.

Ka'nara, between 13° 55′ and 15° 31′ north latitude and 74° 9′ and 75° 10′ east longitude, has an area of 3,941 square miles, a population of 446,351, and a realisable land revenue of Rs. 9,95,940. The district is called North Kánara to distinguish it from South or Madras Kánara. It is bounded on the north by Bidi in Belgaum, on the east by the Dhárwár Kalghatgi Bankápur and Hángal sub-divisions of Dhárwár and by Mysore; on the south by Mysore and South Kánara; and on the west and north-west by the Arabian sea and Goa. It is distributed over eight sub-divisions, Haliyál Yellápur Sirsi and Siddápur above the Ghats, and Kárwár Ankola Kumta and Honávar on the coast. The hilly and thickly wooded lands of Kánara may be divided into three belts, a coast tract with broad winding lagoons, rich plains, and woody hills running to the sea; a central belt of the lofty Sahyádris covered with magnificent forest; and an eastern upland which is wild waving and deeply-wooded in the west and in the east passes into a bare level and thickly-peopled plain. The coast begins in the north with a bay seven miles long and over two miles deep, stretching from the steep woody rock of Lolia in Goa, 300 feet high, to the magnificent block of Kárwár or Baitkul head with a height of 650 feet. In the middle of this bay the double-peaked Oyster rocks, about 160 feet high, lie off the mouth of the Kálinadi river. Two miles south of the river-mouth is Baitkul cove in which lies the modern town of Kárwár. A mile off shore, about three miles south-east of Karwár head, is the pretty island of Anjidiv. Inland four miles south-east of Kárwár head rises Gudehalli peak 1,800 feet above the sea. Along the coast, about eight miles south-east, is the steep rocky cape of Kodarguida. South of this the Belikeri bay stretches seven miles to Kusaldevar or Gangávali rock, about 550 feet high. Two miles beyond Kusaldevar is the shallow winding mouth of the Bedti or Gangávali river. Five miles south-east of the Gangávali river, close to the sandy shore, are the temples and sacred pools of Gokarn. About a mile south of Gokarn is the narrow rocky entrance to the long inland lagoon of the Tadri river. Further, about six miles to the south-east, lies Kumta. About six and a half miles further south is Basradurg, a level brushwood-covered island with remains of fortifications. Two miles south is the narrow entrance to the large salt-water estuary of the Gersappa or Honávar river. From Honávar the coast stretches south, high and broken by many little capes, about sixteen miles to Jalikond or Hog Island. Out at sea, nine miles west of Jalikond, the woody slopes of Netráni or Pigeon Island rise about 300 feet. About four miles south-east of Jalikond stands Bhatkaldurg, the southmost port in the Bombay Presidency. The ascent of the central range of the Sahyádris is over a succession of low hills separated by lowland and upland valleys, whose basins are crowded with spice and betel gardens. Above the gardens the lower slopes lead through a dense belt of forest to a waving plateau, generally wooded, but in places bare or under tillage. Above the plateau the rugged scarps and waterfalls of the higher slopes are hid by magnificent forests. The average height of the crest is 2,000 feet. To the east of the Sahyádri crest stretches a wooded upland from 1,500 to 2,000 feet above the sea. In the west it is a magnificent forest rising in places in woody knolls and solitary peaks. The surface is broken by streams on whose banks are an occasional palm or spice garden or a small clearing for rice or sugarcane. To the east the stately forest dwindles into stunted teak and scrub till even the brushwood disappears in the open plains of the Dhárwár frontier. The Hills with which almost the whole district is covered may be arranged into three groups, the bare

flat-topped blocks of laterite from 200 to 300 feet high which roughen the coast belt, the westerly spurs from the central hills which from 1,000 to 2,000 feet high stretch rugged and woody to the coast; and the main range and eastern spurs of the central hills. Locally the Kanara hills are considered a break between two main ranges, the Sahyádris to the north which end at the Kálinadi behind Kárwár, and the Malabár hills which stretch south from the Shirávati or Honáwar river. The highest peak in the Kanara Sahyádris is Darshanigudd in Supa, about 3,000 feet above the sea. Kánara has four leading Rivers, the Kálinadi in the north, the Bedti or Gangávali about twenty miles south, the Donihalla or Tadri rising far to the south but falling into the sea only about six miles south of the Gangávali, and the Bálanadi or Gersappa river about fifteen miles south of the Tadri. The Kálinadi or Sadáshivgad river rises on the Goa frontier in the extreme north of the district. After a winding south-easterly course of about forty miles it takes a sharp turn to the south-west, and, keeping to the south-west, after a course of about ninety miles falls into the sea two miles north of Kárwár. The Bedti or Gangávali rises in Dhárwár about twenty-five miles north of the north boundary of Mundgod, and, after a fairly straight south-westerly course of about eighty-five miles, falls into the sea about twenty miles south of the Kálinadi. In its course through the district the Bedti dashes over the western face of the Sahyádris at the village of Mágod in a cataract known as the Mágod falls. The Donihalla or Tadri river rises near Sirsi and after a winding westerly course of about forty-five miles falls into the sea about six miles south of the Gangávali river. About eight miles north of Bilgi the Donihalla leaps down the Sahyádris in what is known as the Lushington falls. The Shirávati or Gersappa river after a northerly course of about forty miles from Bednor in Mysore forms the south-east boundary of Kánara for about eight miles and then passes about twenty miles west or about seventy miles in all to the sea at Honávar. Soon after touching the border of Kánara the Shirávati in four different bodies of water, among magnificent forests and wild granite cliffs, dashes over the west face of the Sahyádris, a height of 825 feet, into a pool 350 feet deep in what is known as the Gersappa falls. Towards the coast these rivers meet the tide and are navigable by boats of one to five tons. Besides the four main rivers many minor streams water the district. Kánara lies outside the great flows of trap which overspread almost the whole of Central and Western India and the Konkan. The Rocks of this part of the Southern Marátha Country have been classed by Dr. Christie under five heads, granite, transition rocks, old red sandstone, secondary trap, and alluvial. The granite tracts have the same general features as granite countries in other parts of the world. The soil is naturally barren though often covered with forest. At the falls of Gersappa a variety of granite occurs, later than the common Indian granite. It is made of small grains of white felspar quartz and mica. In some instances it is slaty and is associated with gneiss and hornblende schists. Of transition rocks the chief are clay slate, chlorite slate, talc slate, limestone, gray wacke, gneiss, and quartz. The strata appear to have a general direction of north-west and south-east. Most of them are highly inclined and in many instances they are vertical. The leading colours of the clay slate are gray, blue, greenish, red, and white, gray being the commonest. In the Sahyádris and at several places on the West Coast chlorite slate occurs under the claystone and conglomerate. Iron claystone or laterite is found in great abundance, especially along the coast and below the Sahyádris. It consists of claystone more or less laden with iron and has a perforated and cellular structure, with small masses of clay quartz or ironstone imbedded in it. At Yán near Devimani on the road from Uppinpatna to Sirsi, tall black obelisk-like rocks streaked with red rise about 200 feet out of the plain. The Climate of different parts of Kánara varies greatly in healthiness. The coast districts though moist are healthy. But the forest tracts, especially the upland forests, are always feverish and at intervals are visited by specially fatal outbreaks. The most unhealthy time in the forests is the first two months of the rains and the four cold weather months. The valleys of the Kálinadi and of its feeders are tracts whose fever has a specially bad name. The year may be divided into four Seasons, two hot and damp months October and November, three cool months December January and February, three hot months March April and May, and four wet months June July August and September. In the hot and damp season there are occasional soaking dews both in October and November. A light sea breeze blows during the day from eleven till sunset, and in November the land wind sets in from eleven in the evening and lasts till the morning. In the cool months the uplands at night and early morning are often wrapped in mist. Dews are commoner and heavier in December and January, but cease with the setting in of a hotter air in February. A light sea breeze blows during the day and at night the land wind freshens striking very chill in December and January and warming to a hot wind towards the close of February, when it lasts most of the day. In the hot season the sea breeze begins sooner and lasts longer. After sunset a cool air rises from the forests and thickens the vapour into a close mist. In the early days of May, with a fresher and moister sea-breeze, after dark the hill-tops are generally wrapped in thick fog. From the 20th of May the west wind freshens and blows all day, while the clouds bank up in the south-west ready to be dashed against the hills. Early in June the clouds which have been steadily gathering heavier and heavier in the west are at last driven by a strong south-west wind with awful thunder and lightning against the western slopes of the hills and the country is flooded. The squalls are heaviest in June and July. Towards the end of August the rain and wind lighten and end in September or in early October in occasional showers. Of the two divisions of the district, the upland and the lowland, the lowland or coast tract has the heavier rainfall. The average rainfall during the eight years ending 1893 was 133 inches. Of Mineral products iron ore is found in different places in the main range and spurs of the Sahyádris and in the island of Basrádurg about a mile off the coast to the north of Honávar. The building stone in general use below the Sahyádris is iron-clay or laterite and sometimes granite or granitic schist and clay-slate. Above the Sahyádris it is nearly always granite. Above the Sahyádris the lime in general use is made from limestone pebbles dug out of the banks of streams. On the coast lime is made by burning cockle and oyster shells, which are abundant in most of the creeks and rivers, especially in the Kálinadi. Of the 3,941 square miles of the district 3,548 square miles or about ninety per cent are under forest entirely the property of Government. The Forest area is divided into three sections: the tableland above the Sahyádris, the main range of the Sahyádris, and the western spurs of the Sahyádris. West from the eastern frontier towards the Sahyádris tillage becomes rare, and there are splendid forests of teak blackwood terminalias and other trees 80 to 150 feet high with fine clean stems sixty to ninety feet high and five to twelve feet in girth. The central Sahyádri forest belt, though it includes

KÁNARA.

some large iron-clay plateaux with nothing but scrub and grass, has some of the finest forests in the district. The chief of these are the magnificent teak forests of the Kálinadi and Káveri rivers which run through Supa and Yellápur, and of the Bedtihalla and Gangávali rivers which divide Yellápur from Sirsi. In the western or coast belt the lowlands are under tillage and most of the forests are found on the spurs that run west from the Sahyádris in some cases to the sea. Bamboos of several valuable kinds grow over the whole of the district. The chief liquor-yielding tree is the cocoa-palm. In Kárwár, Kumta, Ankola, and Honávar there are luxuriant cocoa-palm gardens. Besides from the cocoa-palm liquor is made from the *bainí* Caryota urens. This grows above the Sahyádris in theevergreen forests called *Kans* in Siddápur, Sirsi, Yellápur, and Supa. The following are some of the more important trees of the Kánara forests: *Bábhul* Acacia arabica, *khair* Acacia catechu, *holi* Adina cordifolia, walnut, *siras* Albizzia lebbek, *dhaura* Anogeissus latifolia, *káju* Anacardium occidentale, betelnut palm, *mohá* Bassia latifolia, *phalas* Butea frondosa, *undi* Calophyllum inophyllum, *sisu* Dalbergia latifolia, *abnus* Diosphyros ebenum, *jámbul* Eugenia jambolana, *nandruk* Ficus retusa, *bhirand* Garcinia purpurea, *nán* Lagerstræmia microcarpa, mango, sandalwood, tam rind, teak, and *hirda* Terminalia chebula. The domestic Animals of the district are oxen, cows, buffaloes, sheep, goats, and horses. Everywhere but especially below the Sahyádris the stock is inferior. Kárwár Kumta Ankola and Honávar have few domestic animals of local breed. In Kárwár Kumta and Honávar the Goanese and other Christians keep pigs, which are of the common breed. Fowls are kept by all classes except by Bráhmans. Of wild animals tigers are found in all parts of the district though their number has considerably decreased during the last few years. Panthers are especially common. Other wild animals found in the district are the leopard-cat, hunting leopard and lynx, hyæna, wolf, wild dog, jackal, porcupine, crocodile, otter, black bear, hog, bison, sámbar, spotted deer, rib-faced or barking deer, mouse deer, four-horned antelope, and the Indian antelope. The district is everywhere infested with snakes both poisonous and harmless. The cobra is found everywhere. Echis carinata *phursa* or *dudhakra* is mostly found on the coast. *A'r* or *hebbán* the Indian python, is found in the forests sometimes of a very great size. *Divad* Ptyas mucosus and the green tree or whip snake also occur. There are many snakes both venomous and harmless which have not been identified. Except in Supa and Mundgod, where the rivers are not well stocked, both salt and freshwater fishing is extensively carried on throughout the district. The chief saltwater fish are the *surmai*, mullet, sardine, sole, and pomphlet. Fish are found in all streams and in large numbers in the Kálinadi, Gangávali, Tadri, and Shiravati. They are caught in nets, by angling, or by poisoning the water. The chief freshwater fishes are *kures*, *shivra*, *thigur*, *kharchi*, *pithli*, *mulia*, *vamlu*, *lambi*, *khonla*, *thambausa*, *kana*, *indh*, *sindula*, *bendnk gudmuga*, *shetuk*, *karai*, *kanga*, *dondga*, *marul*, *keri*, and *jitkori*. The game and other birds which are common over Western India with a few exceptions are fairly represented in Kánara. The chief varieties are the peafowl, gray jungle fowl, spurfowl, partridge, sand grouse, quail, plover, snipe, coot, goose, duck, and teal. Agriculture supports 63 per cent of the population. Below the Sahyádris the arable land consists partly of sandy plains along the seashore and the banks of rivers, partly of narrow valleys among the hills, most of them watered by unfailing streams. The chief products of the sandy plains are rice cocoa-palms and betel-palms. Above the Sahyádris, except where the underlying iron-clay rises to the surface, the Soil is good. Here garden crops are the staple produce of the west and rice of the east. On the coast most of the garden land is given to cocoa-palms. A little inland the cocoa-palm is often mixed with the betel-palm. Further inland in the valleys at the foot of the Sahyádris and on their lower slopes are the rich palm and spice gardens which are the special glory of Kánara. Cardamoms are common in the beautiful hill gardens that occupy the western valleys of North Kánara immediately above the Sahyádris. Black pepper, white pepper, wild pepper, and betel-leaf also form the garden produce. The chief Crops of the district are rice, cocoanuts, betelnuts, black pepper, cardamoms, plantains, *rági* Eleusine corocana, great millet *shávé* Panicum miliare, jingelly-seed, turmeric, sweet-potatoes, hemp, and castor-seed. The chief pulses are black gram, green gram, horse gram, Bengal gram, white gram, and peas. Especially in times of drought and scarcity the seed of some bamboos is used as a grain. Of spices and condiments besides pepper-vines betel-vines and cardamoms, ginger and chillies are much grown both below and above the Sahyádris. Sugarcane is largely grown throughout the district. It is of three kinds, *rusal* or spotted, *kare* or black, and *bile* or white. East-Indian arrowroot Curcuma angustifolia, grows wild and is also cultivated in different parts of the district. Of vegetables the egg-plant, the water-melon, and various pumpkins gourds and cucumbers are much grown. The *bendi* Hibiscus esculentus, one of the most popular and wholesome vegetables, is largely grown on the coast. Among the chief fruit trees are the jack, pumelo, orange, lemon, pomegranate, fig, custard-apple, sweetsop or bullock's-heart, rose apple, papay, Indian almond, and cashewnut.

GOA.

Goa, between 14° 53′ and 15° 48′ north latitude and 73° 45′ and 74° 24′ east longitude, has an area of about 1,200 square miles, a population of 500,000, and a total revenue of Rs. 10,81,500. On the north the Tirakal separates Goa from Sávantvádi, on the east the Sahyádris separate it from Belgaum, on the south is North Kánara, and on the west the Arabian sea. For administrative purposes Goa includes nine sub-divisions, Old Conquests or Ilhas, Salsette, Bárdez, New Conquests or Pernem, Sanquelim, Ponda, Sanguem, Quepem, and Canacona. Goa is the belt of hilly land between the Sahyádris and the sea with an extreme length of sixty-two and a greatest breadth of forty miles. Of the isolated peaks of the Sahyádris and their western spurs, the chief are Sonságar (3,827), Catlanchimauli (3,633), Vaguerim (3,500), Morlemchogor (3,400), Siduato, Consid, and Dudeagar. The chief Rivers are the Tirakal from Sávantvádi in the north, the Chapora or Colvalle from the Rám Ghát, the Mandávi passing both the ancient and modern capital, the Inari falling into the bay of Mármagao, and the Talpona entering the sea near the fort of that name. The Goa coast possesses a fine harbour formed by the promontories of Bardez and Salsette with two anchorages Aguada and Mármagao, of which Mármagao is accessible at all seasons. The rock of the district is chiefly iron-yielding laterite. The climate is hot and damp with a rainfall of over 100 inches. Stately forests, in parts much damaged by *kumri* or fire-clearing tillage, are found in the New Conquests, and almost the whole coast lands are rich in cocoa and betel palm groves. The mango cashew and jack are the leading fruit trees. Except that it is the chief place on the western coast for rearing turkeys,

GOA.

Guineafowl, duck and hens, there is little to note regarding either the domestic or the wild animals of Goa. The Soil is mainly clayey, full of stone and gravel in places, and in others enriched by vegetable matter. Agriculture and palm-growing are the leading local industries. The main Crop is the rain-crop called in Goa *sorodio* or winter, the chief products being rice and *náchni*. The cold weather field products are of pulses, *urid kulti* and *mug*, and of garden products with the help of water the potato, radish, yam, cucumber, melon, chilly, ginger, turmeric, and onion.

SÁVANTVÁDI.

Sa'vantva'di, immediately to the north of Goa, cut off from the sea on the west and north-west, and bounded on the north by Ratnágiri, with Kolhápur on the north-east and Belgaum on the east and south-east, has an area of 926 square miles, a population of 192,948, and a gross yearly revenue of Rs. 4,12,903. With a length of about fifty miles and a breadth of ten to thirty miles unbroken by the lands of other states, Sávantvádi stretches along the foot of the Sahyádris, a country of streams and hills, broken rugged and picturesque. A few miles from the sea the land rises into uneven and wooded uplands, whose rocks block the rivers and backwaters. The open country along the coast and the valleys that run eastward inland are rich well-wooded rice lands with, along the banks of the rivers and the foots of the hills, groves of cocoa and betel-palms. Near the Sahyádris the country is strikingly beautiful. Spurs from the main hills detached groups and isolated peaks, rising 300 to 3,000 feet above the plain, form strong natural fastnesses, some of them like Manohar and Mansantosh, fourteen miles north-east of Vádi (2,500 feet) said to have been fortified since the times of the Pándavas. The two chief rivers of Sávantvádi, rising on either side of the Manohar hills, are the Kárli on the north and the Terekhol on the south. The Kárli, with a westerly course of about thirty-five miles, falls into the sea at Málvan, and the Terekhol with a southerly course falls into the sea three miles from Araunda. Except that it is a little damper and cooler, the climate of Sávantvádi is the same as the climate of Málvan in south Ratnágiri. The products also do not differ from those of the Ratnágiri district.

RATNÁGIRI.

Ratna'giri, between 15° 40′ and 18° 5′ north latitude and 73° 5′ and 73° 55′ east longitude, has an area of 3,912 square miles, a population of 1,105,926, and a realisable land revenue of Rs. 9,42,551. The river Sávitri, with the exception of the two villages Bágmándla and Kolmándla on its northern bank, forms a natural boundary between Ratnágiri and the Janjira state, and from Mahápráj an irregular chain of hills divides it from the southern extremity of the Kolába district. On the east the Sahyádris with the exception of one village (Gotna) part it from Sátára and Kolhápur. On the south it is bounded by Savantvádi, and on the west the Indian ocean gives the district a seaboard of 160 miles. Ratnagiri has nine administrative sub-divisions, Dápoli, Khed, Chiplún, Sangameshvar, Ratnágiri Rájápur, Devgad, Málvan, and Vengurla. The belt of broken land between the sea and the Sahyádri hills, which forms the district of Ratnágiri, presents a variety of features. In the east near the Sahyádris are fairly open valleys and rounded hills; the centre is a mass of rugged ranges; and towards the coast are barren nearly level plateaux cleft by narrow deep and steep-sided valleys and ravines, through which the rivers and streams find their way from the Sahyádris to the sea. The tidal and navigable rivers have on their banks the chief ports and nearly all the fertile land of the southern Konkan. Over the rest of the country the soil is miserably poor, most of it a stiff iron-clay often mixed with gravel. Though from a distance apparently an unbroken line of black cliffs, the coast contains a succession of bays and coves shut in between jutting points of black rock edged with white sand. The coast has always a fair covering of brushwood, and, in places where the hills draw back, from their base to the beach stretches a fine prospect of rice field and palm groves. Among the bays which indent the coast are some roomy enough to be leading ports and foreign trade centres, with promontories at the mouths of large rivers crowned with ruins of old fortresses and with openings within which, shaded more or less densely by palm groves, nestle villages with their one or two narrow lines of houses each standing within its own plot of cocoa-palm garden. Inland the district is a series of raised laterite table-lands separated by valleys, some mere torrent beds, others with strips of rice land often fringed with betelnut groves or plantain gardens, with here and there a mango or jack tree orchard. Of these table-lands, those inland are fairly wooded and those near the coast mostly barren. The inland villages, many of which have ancient temple-groves, usually lie in the valleys under clumps of lofty mango jack or tamarind trees, overgrown with ferns and orchids and linked by trailing climbers shading a tangled growth of bush and scrub intersected by mazy paths. From all parts of the district the line of the Sahyádris bounds the eastern horizon. Numerous spurs roughen the country between the base of the main range and the sea. Both above and below the main range the massive basaltic rocks that crown the Sahyádris can, with little aid from art, be turned into nearly impregnable fortresses, with a liberal supply of the finest water from the springs with which the hills abound. The hills are crossed by numerous passes, which, except the made roads, form the only means of communication with the Dekhan. The crests of these passes command some of the most magnificent scenery in India. Mountains behind mountains, some of them four thousand feet high, mostly covered with trees, in places always green and especially rich during the rainy season. The lower hills are for the most part bare. Those of them deserving mention are, beginning from the north, the hog-backed Mandangad, a ruined fort in Dápoli commanding a view of Mahábaleshvar; south of this, also in Dápoli, Pálgad; further south, in Khed, the three isolated hills of Mahipatgad, Sumargad, and Rasálgad; passing south to Lánja in Rájápur, Máchál, a triangular hill, close to the old fort of Vishálgad, ends in a broad plateau fit for a sanitarium. The character of the streams that form the River system of Ratnágiri varies little. They rise in the main range, or in the spurs of the Sahyádris, and traversing the country along narrow deep-cut ravines they enter the Indian ocean after winding courses seldom of more than forty miles. The general flow is from east to west with sometimes a tendency to the south. The abruptness of their windings is a notable feature of the Ratnágiri rivers. Though of comparatively small size and

RATNÁGIRI.

volume and ill suited for irrigation, the Ratnágiri rivers are of great local value being navigable for twenty miles or more and having estuaries affording safe anchorage for coasting craft. Besides the rivers are many small streams creeks and inlets, and during the monsoon, innumerable rills open in all directions and draining into patches of level ground turn them into valuable rice fields. The Sávitri, which for the last twenty-four miles of its course forms the northern boundary of the collectorate, is one of the Panch Ganga or five rivers that take their rise from the village of old Mahábaleshvar. It reaches the Ratnágiri district at Maháprál, and, without receiving any tributary, after a total course of about fifty miles falls into the sea. At its mouth Fort Victoria crowns the southern headland of the fair-weather port of Bánkot. About thirty miles south the Váshishti, the largest and most important river in the district, rises in the Tivra pass, becomes tidal at Chiplún about fifteen miles from its source, and after a course of forty miles reaches the sea at the port of Anjanvel. Like that of the Sávitri the entrance of the Váshishti is guarded by a formidable sand bar. On the north bank, a mile above Anjanvel, stands the once famous port of Dábhol. Both Anjanvel and Dábhol are fair-weather ports. The Jagbudi, the principal tributary of the Váshishti, rising near the Hatlot pass, joins the Váshishti from the right bank twenty-five miles from the coast. At any state of the tide the Váshishti is navigable for the largest craft as far as Diva, eight miles below Govalkot, the landing-place for Chiplun. On the tide very large craft work up as far as Govalkot and small craft as far as Khed. The Shástri, rising in the Sahyádri hills near Prachitgad, after about twenty miles meets the tidal wave at Pet, and, twenty miles further, falls into the ocean at Jaygad, a rocky promontory twenty miles south of the estuary of the Váshishti. Its principal tributary, the Bav, rising in the Sahyádri range near the Amba pass, after a course of about thirty-five miles, joins the Shástri on the left bank at Phangas about twenty-five miles from the coast. Five miles lower the Gadnadi from the Mala pass meets the Shástri on its right bank. Jaygad at the mouth of the Shástri is a good fair-weather port. Its estuary is broader and its bar less difficult than those of the Sávitri and Váshishti, but the river soon narrows and its channel is gradually silting though vessels of moderate draught can run on the tide as far as Sangameshwar. The Ratnágiri creek or river about twenty-five miles south of the Shástri rises in the Amba pass, and, after a course of some forty miles, falls into the sea. Outside and to the north of the entrance, with a light-house at the extreme end, lies the promontory on which stands the fort of Ratnágiri. During the north-west winds the bay affords a safe anchorage for small craft, which can work up on the tide twelve miles as far as Harchiri. About twelve miles south near the fort of Purángad the Muchkundi from near Prabhavli flows into the sea after a navigable course of about twelve miles. The Jaytápur river rising in the Anaskura pass, and meeting the tide about twenty-five miles from its source at the ancient town of Rájápur, after a further course of fifteen miles, falls into the sea at the fair-weather port of Yashvantgad. Four miles south of Yashvantgad is the mouth of the Vijaydurg creek or Vágotna river, which, rising in the Kájirda pass and meeting the tidal wave near Khárepátan, after a further navigable course of twenty miles, reaches the ocean at Vijaydurg, a bold headland on the south of the estuary crowned by the ruins of an old fort. The mouth of the river being completely sheltered by the Vijaydurg promontory affords all the year round a splendid anchorage to large-sized craft. After rounding Vijaydurg the channel turns south-east for four miles parallel to the line of the coast and then gradually curves to the east. At the bend a large south-running backwater forms the peninsula of Gheria. The Devgad river rising in the Sivgad pass after a course of thirty-five miles falls into the sea at the fort of Devgad. The Achra rising in a spur of the Sahyádris near Phonda falls into the sea after a course of less than thirty miles, only four of which are navigable. The Kálavla river rising in the Naradva pass, after a course of forty-four miles eight of them navigable, falls into the sea at a small bay three miles north of Málvan. The only other river of importance is the Kárli, which, rising in the Sahyádri hills near Manohargad in Sávantvádi, with a winding course of forty-nine miles, falls into the sea eight miles south of Málvan. Of Ratnágiri Creeks the north-most lying midway between Bánkot and Suvarndurg, is the Kelshi, navigable for small canoes for some ten miles. Two miles south is the smaller Ada creek with a salt-water fishery of some importance, and, four miles further, is the Anjarla creek or Jog river. No creek of importance occurs between the Jog and the Váshishti. Between the Váshishti and the Shástri are the two bays of Pálshet and Borya, and between the Shástri and the Ratnágiri rivers are four creeks, the Ganpatipula, Karyát, Nevra, and Ara. The Kálbádevi backwater from Mirya bay and the Ratnágiri port are two navigable creeklets. The creeks streams and backwaters south of Ratnágiri are small and unimportant. The district contains no natural Lakes and but few artificial reservoirs of any size. The only notable reservoirs are those at Dhámápur, Varád, and Pendur in Málvan. Of their age or builders no record remains. The Dhámápur lake has an area of fifty-five acres and a maximum depth of 37½ feet; the Pendur lake covers fifty-two acres with a greatest depth of twelve feet; and the Varád lake has a spread of thirty acres and a maximum depth of twelve feet. The Rocks of a great part of the Ratnágiri district belong to five groups in the following descending order:

I.—Post Tertiary or Recent ...	... 7 Subaerial formations and soils.
	6 Alluvial deposits.
II.—Upper ditto ...	... 5 Konkan laterite.
III.—Middle or Lower Tertiary	... 4 Ratnágiri plant-beds.
IV.—Upper Secondary ...	... 3 Dekhan trap and iron-clay (laterite) soils.
V.—Azoic	... 2 Kaládgi quartzites and shale.
	1 Gneissic (metamorphic) series with trap and granite intrusion.

Measured by their superficial area by far the most important of these groups is the Konkan laterite; the next is the Dekhan trap; the gneissic series covers the third; and the Kaládgi quartzites cover the fourth largest area. The remaining rocks occupying very small surfaces are comparatively of little importance. The peculiar gneissic series of the south of the peninsula forms the foundation on which all the other formations rest in Ratnágiri. They are exposed only in the southern parts, along the sea coast, and in the valley of the Ashámat river. Kaládgi quartzites and shales occur in the southern Konkan in numerous detached inliers divided from each other by the overlying beds of the Dekhan traps and the Konkan laterite. Resting with well-marked unconformity upon the Kaládgi rocks comes the great series of trap flows which poured over the Dekhan and Western India about the end of the cretaceous period. No intertrapean formations were noted in the Konkan. At Ratnágiri resting on the denuded surface of the Dekhan trap is a deposit of white clay in which remains of plants are found in the condition of lignite. Of all southern Konkan formations the remarkable argillo-ferruginous or iron-clay deposit known as Konkan laterite covers the greatest surface and most affects the appearance and character of the country. The Ratnágiri alluvial deposits are of two kinds, sea and river, but neither is of any extent or importance. Among subaerial formations must be reckoned the small blown sandhills on the coast near Málvan and Devgad where they cover the raised beds of sea alluvium of subaerial origin as also the various patches of pseudo-laterite rocks. As regards its water-bearing strata, the district may be divided lengthwise into five belts

RATNA'GIRI.

or strips: the sea coast, an inland belt of laterite from eight to ten miles broad, a second mixed laterite and basalt belt ten miles broad, a basalt belt of six to eight miles, and the foot or spurs of the Sahyádris. Hot Springs are found in the district in a line running halfway between the Sahyádris and the sea. Two villages in Dápoli and one in Rájápur are named Unhála from their hot springs which also occur near Khed, and at Sangameshvar Arvali and Tural in the Sangameshvar sub-division. The Climate though moist and relaxing is on the whole healthy. The rainfall during the eight years ending 1893 averaged 107 inches. The south-west monsoon breaks on the coast usually about the 4th of June, and the rain continues to fall to the middle or end of October. During the hot months, March April and the first half of May, north-westerly breezes temper the great heat. Fifteen miles from the coast greater extremes of heat and cold are experienced. By the middle of November the climate changes from damp-warmth to dry-cold. From February to the middle of May strong gusty winds blow from the north-west. According to a legend, the truth of which the presence of quartz makes not improbable, gold used to be found near Phonda at the foot of the Sahyádri hills. In the south very pure specular iron is associated in small quantities with the quartz rock. All the laterite of the district is charged with iron, though in proportions too small to make it worth smelting. Near Málvan iron ore is found in detached masses on the tops of hills. In former times the Málvan mines and those of Gothna, a village above the Sahyádris, were much worked. And as late as 1844 the smelting of iron was carried on at Masura, Kálávali, Varangaon, and some other villages. At certain depths are occasionally found remains of trees changed or changing into coal. The other Mineral products are talc, stone for road-metal, sand, clay, and lime. The only valuable teak reserves in the south Konkan, those in the Dápoli sub-division and in the Mhau Dhámápur and Pendur forests at Málvan, were sown by Kánhoji Angria about 1680. The area under forest is 20 square miles. The Government reserves are in the Dápoli Khed Rájápur and Málvan sub-divisions. The chief Forest trees are the liquor-yielding palms, the chief timber trees being the *ságwán*, *ain*, *kinjal*, *khair*, and bamboo. Of fruit trees are the jack, the mango, the Indian mangosteen *kokam* Garcinia purpurea, and the *káju*. The pasturage of the district being poor and devoid of nutriment the local breed of cattle is inferior. Sheep imported from the grazing grounds above the Sahyádris deteriorate rapidly, and horses, however cared for, lose condition. Goats, though of inferior breed, appear to thrive. The only imported breed of cows or buffaloes is from Jáfarábád in south Káthiáwár. Sheep are kept by butchers only, and goats by Bráhmans and Shenvis for milk. No care is bestowed on their breeding. Donkeys are rarely kept by any but the vagrant tribes. The poultry reared by the poorer classes has no special merit. To the sportsman Ratnágiri is a poor district. Such large game as the tiger, sámbhar, and bear seldom wander beyond the dense cover of the Sahyádris. The wild boar is found both in the Sahyádri hills and near the coast in brushwood overhanging the tidal creeks. In birds Ratnágiri cannot be said to be rich either in species or individuals. The absence of the partridge sandgrouse bustard and crane, and the comparative dearth of quails makes the district an indifferent game country. On the other hand, duck snipe and golden plover are plentiful, and the alluvial banks of tidal creeks, the mangrove swamps, salt marshes, and flooded rice-fields afford feeding grounds to innumerable waders. Snakes both venomous and harmless, with which the district is everywhere infested, are more plentiful in the Rájápur and Devgad sub-divisions than elsewhere. Both species and individuals are numerous, and the little-frequented barren rocky hills, giving innumerable hiding places, specially favour their existence. Compared with other parts of the Presidency the mortality from snake-bite is large. Of the harmless colubrine snakes that are common in the district, are the rock snake Ptyas mucosus, the checkered snake Tropidonotus quincunciatus usually called the water snake, the green ground snake Tropidonotus plumbicolor, and the common brown tree snake Dipsas gokool. The chief venomous snakes are the cobra Naga tripudians, the chain viper Daboia elegans, and the *phursa* Echis carinata, which last is accountable for most of the local deaths from snake-bite. The district is well supplied with salt-water and in a less degree with fresh-water fish. In the rivers, particularly in the Jog near Dápoli and up the tidal creeks and inlets, freshwater fishing is carried on. When, during the south-west monsoon (June - August), the fishermen do not venture on the open sea they fish in canoes in the rivers and creeks. Between October and December whales are sometimes seen along the coast but are not molested. From November to June Ratnágiri fishermen do a brisk trade in collecting and drying the fins and maws of the *mushi* a species of shark, and of two kinds of saw-fish, the *geni* and *nali*. The dorsal pectoral and caudal fins are cut off from the sharks and the saw-fish and the maws are taken from the *ghol* and the *shingti*. They are dried in the sun, sprinkled with lime, and sold wholesale to Bombay Khojás who export them to China for isinglass or gelatine. Agriculture, the most important industry in the district, supports 72·92 per cent of the people. Each of four chief Soils, rice, garden, alluvial or *rabi*, and upland or *varkas*, includes many varieties. Irrigation is chiefly from wells and water-courses as the tidal influence passes so far inland as to make the rivers useless for irrigation. The chief Crops are in the order of importance, *hárik* Paspalum scrobiculatum the cheapest grain and the staple food of all but the well-to-do, *náchni* Eleusine corocana, *vari* Paniculum miliare, and *bhát* rice Oryza sativa; of pulses *kulith* Dolichos uniflorus, *tur* Cajanus indicus grown largely in the north of the district, black gram Phaseolus mungo and green gram Phaseolus radiatus; of oilseeds *til* Sesamum indicum chiefly grown in Dápoli; and of fibres, *tag* hemp Crotalaria juncea. Súgarcane is reared in all parts of the district except in Khed, and chillies in considerable quantities as a dry-weather crop.

KOLA'BA.

Kola'ba, between 19° 0′ and 17° 50′ north latitude and 72° 55′ and 73° 48′ east longitude, has an estimated area of 2,137 square miles, a population of 594,872, and a realisable land revenue of Rs. 11,97,068. The district, with a length of about ninety-five miles north to south and a breadth of fifteen to forty miles east to west, is bounded on the north and north-east by the Bombay harbour and the Kalyán and Murbád sub-divisions of Thána; on the east the Sahyádris divide it from Poona the Bhor state and Sátára; on the south it is bordered by Ratnágiri; and on the south-west as far north as Cheul it is parted from the sea by Janjira, north of which its western boundary is the sea and Bombay harbour. For administrative purposes this area is distributed over seven sub-divisions, beginning from the north, Karjat, Panvel, Pen, Alibág, Roha, Mángaon, and Mahád. Kolába also includes, on the coast in the south-west corner, the state of Janjira or Habsán, the Sidis' land, with an area of

KOLÁBA.

about 324 square miles, a population of 81,780, and a gross revenue of Rs. 5,34,017. The great Rájpuri creek winding inland divides Janjira into two nearly equal parts. The Janjira coast is generally green with ranges of wooded hills and near the mouths of creeks the shore is fringed by belts of palm groves one or two miles broad. Inland, behind strips of salt-swamp and mangrove bushes, lie the rice lands sometimes a mile or two broad, in places stretching to the lower slopes of the main ranges, in others broken by cross-ridges that end at the water-side in tree-crested scarps. The chief range of hills to the north of the Rájpuri creek, separating Janjira from Kolába, rises to the walled and well-wooded summit of Madgad (1300). Janjira has no streams of any size. The chief Creeks are Mándla-Borlái, Nándgaon, Murud, Rájpuri, Pawchaitan, and Shrivardhan. Though of late years the number has greatly diminished the Janjira hills and forests still shelter tigers, panthers, *sámbar*, and boar. In its variety of birds and fishes, in its domestic animals, and in its products both of field and forest Janjira does not differ from the coast of Kolába of which geographically it forms the southern corner.

Kolába is a rough belt of country stretching from the south of Thána and of the Bombay harbour to the foot of the Mahábaleshvar hills. The west strip of Panvel skirting the east and south-east of Bombay harbour is a low belt of salt-pans and rice-fields. Along the south of the harbour, still more along the western coast as far as Cheul, before the Janjira or Habsán lands begin to separate it from the sea, stretches a rich fringe of palm gardens and orchards with large prosperous and well-built villages. Behind this rich western belt, and behind the mangrove-fringed banks of the tidal rivers, stretch low tracts of salt marsh and rice lands, parched and ugly during the dry season and except round the raised island-like village sites bare of trees. Above the limit of the tide most of the larger streams and their feeders pass inland, along narrow winding valleys well tilled and thickly peopled. On either side and sometimes across these valleys are rolling lines of low bare uplands cropped with coarse grain, or used for grazing. Behind these bare uplands in Karjat and Panvel in the north, and among the Sahyádri and Ráygad hills in the east and south-east, in the west along the borders of Janjira, and in some of the central Alibág hills are many wild and beautiful tracts, with only a few hamlets of hillmen, little or no tillage, and forests deep and wide enough to shelter the wild boar, the *sámbar*, the panther, and the tiger. Four lines of natural drainage divide the district into four parts: North Kolába, the sub-divisions of Karjat and Panvel, draining north into the Kalyán river and west into the head-waters of Bombay harbour: West Kolába, draining north into Bombay harbour and west into the sea: East Kolába, draining west into the Kundalika and south-west into the Mándád rivers: and South Kolába, from both north and south draining into the west-flowing Sávitri or Bánkot river. North Kolába, till lately part of Thána, contains two portions, Karjat, the rough hilly tract between the Sahyádris on the east and the Mátherán-Távli range on the west opening northwards down the valley of the Ulhás or Kalyán river in broad stretches of rich rice land levelled from the banks of streams and the lower slopes of knolls and surrounded and broken by uplands covered with teak *ain* and other common trees and with clearings for panic on the slopes and level tops. To the south and west of Karjat, rugged near the Sahyádris in the east and the Mátherán range in the north and then broken by the line of the Karnála or Funnel hill range, Panvel stretches west first in rice lands and then in the salt waste and widespread salt-pans of Uran. In West Kolába, behind the palmgrove and orchard-fringed coast, and along most of the coast line to the north and the banks of the Amba to the east, the country is low and flat, seamed with muddy mangrove-lined creeks, saltwater channels crawling through salt marsh or rice land, bare and brown during most of the year, and, except in a few scattered island-like knolls, without freshwater trees or villages. Gradually the knolls crowd closer and become larger, their slopes furnishing sites for well-built and shaded villages. Behind these knolls the land rises in low bare hills. Towards the centre and the south the hill-sides are more wooded, the lower slopes being clothed with teak coppice and the deeper ravines and upper slopes rich with evergreen forest. At intervals along the hill-sides run flat terraces with stretches of upland tillage and hamlets of hill tribes. Clefts through the upper scarps lead in some cases to rocky narrow hill-tops, in others to rolling plateaux of deep soil, with springs evergreen glades and broad pastures. Eastern Kolába, along the north-flowing Amba or Nágothna river, rises slowly from slimy mangrove swamps into bare flat salt-pans and reclaimed rice lands, with fairly rich villages set on low wooded mounds. The flat rice land breaks into rocky knolls, which pass into low bare spurs, and these rise into timber-clad hill-ranges with flat tilled terraces and wide waving tops frequented by herdsmen. Along the south of West Kolába the Kundalika or Roha river, a beautiful tidal inlet, winds east and south-east among rugged woody hills, fringed by salt marsh and rice lands. Above the tide limit the hills draw nearer its banks and the country grows wilder. South of the Kundalika's water-shed most of the tract drained by the Mándád river and its feeders is hilly and brushwood covered. To the east and south of the river the country is a rugged upland broken by isolated peaks and brushwood and coppice covered spurs but mostly well-peopled and under tillage. After meeting the tidal wave the Mándád river winds through wooded hills and scenes of great beauty, about eight miles, till its fall into the Janjira creek. South Kolába forms two parts which centre in the navigable Sávitri river that crosses the district about fifteen miles from its extreme south. Ranges of low bare hills form the water-parting between the valleys of the Kundalika and of the Ghod and Kál. The main valley of the Ghod, though treeless and broken by low bare hills, has a considerable area of rice and garden tillage. In the centre and south the land is low bare and flat, the west is rougher and more broken, and the north-west is rugged crossed by ranges of bare waving hills. The Sahyádris loom like a dark wall along the eastern border sending westwards long spurs and huge isolated outliers, the grandest of which is the great fortified scarp of Ráygad. The south of the district is wild and rugged, roughened by many spurs from the Mahábaleshvar hills. The chief Hills in Kolába are the Sahyádris. From close to Shitgad, about sixteen miles north of the Bor pass, the Sahyádris form the eastern limit of the district, a high wall broken by outstanding peaks bare from a distance but nearer showing deep woody ravines and terraces thick with evergreen forest. The most notable peaks are in the north, the fortified rock of Shitgad and about five miles south the great hill of Bhimashankar. Near this the curious peak of Tungi and the fort of Kothaligad, then the great part-fortified mass of Dhák, the twin points of Rájmáchi, and to the south of the Bor pass Nágphani or the Duke's Nose. In the south-east, beyond the inlier of the Bhor state, Kumbiácha Dongar or Dhaner hill, and in the extreme south Pratápgad and Torna. Though within Kolába limits many tracts cross the Sahyádris only three are fit for wheeled vehicles, the Bor pass and Railway ghát in the north and the FitzGerald and Varanda passes in the south-east. Of other ranges the chief is the great line of hills that from near the foot of the Bor pass stretches north-west in the flat tops of Mátherán and Prabhal and the shattered cliffs of Chánderi, Navra-navri, Malangad, and Távla, about twenty miles to near Kalyán in Thána. Besides this great Mátherán-Távli range that forms its east and north-east boundary, Panvel has running north and south nearly along its centre the broken spur which ends

southwards in Karnála or Funnel hill. Further west is the lower line of the Parshik hills and in the south the long ridges that centre in the precipitous fortified peak of Mánikgad (1800). South of Bombay harbour a well-marked rugged belt rising in bare rocky slopes runs south and south-east with the two leading peaks of Kankeshvar (1,000) in the extreme north and Ságargad (1,164) about six miles further south. About halfway between this western belt and the Sahyádris a broken and more irregular range, centering in the north in the great plateau of Mira Dongar (1,100), runs south to Mángaon dividing the valleys of the Ghod and the Kál. South of Mángaon a long rugged spur, dividing Mángaon from Máhád, stretches from the Sahyádris to Dásgaon. Parallel to this and midway between it and the Sahyádris is the range that starts in the north in the famous hill-fort of Ráygád and further south breaking into bare rocky spurs sinks into the plain a little to the north of the Ráygad-Kál river. In the south many spurs and minor ranges stretch tame and flat-topped or rise in isolated fortified peaks. The common characteristic of Kolába Rivers is their two well-marked sections above and below the tide. When they gather at the foot of the Sahyádris the streams, with the exception of the Ulhás which the Mátherán-Távli range forces almost north, pass on the whole west between deep steep-cut banks, along rocky beds with here and there a stretch of gravel. In the rains their turgid torrents have in places to be crossed by ferries, but, during the dry season, they become chains of pools separated by gravel banks and low ridges of rock. Below tide-limits their beds are muddy occasionally broken by dykes of rock, the banks in places high and again so low as to require to be raised in heaps to prevent the overflow of the tide. Except the Ulhás creek or Kalyán river which lies north of Kolába limits, the Mándád creek is the only waterway whose bed is not blocked with belts of rock, which are covered only at high tide. Besides the streams that drain the western slopes of the Alibág hills Kolába has four distinct river systems. The north-east draining north into the Ulhás or Kalyán river and west into the Kálundri or Panvel river and the Pátálganga or A'pta river: the east draining northwards along the A'mba or Nágothna river: the west draining west along the Kundálika or Roha river and south-west along the Mándád river: and the south draining west and south-west into the Sávitri or Bánkot river, Ghod, Nizámpur-Kál, Ráygad-Kál, and Nágeshvari. The seven chief rivers are the Ulhás, Kálundri, Pátálganga, A'mba, Kundalika, Mándád, and Sávitri. Of the Ulhás or Kalyán river only the upper or freshwater section lies within Kolába limits. It rises in Khandála and passing down the great Rájmáchi gorge to the north of the railway spur flows north leaving Kolába about fifteen miles above Kalyán. The Kálundri or Panvel river, rising with several feeders in the western slopes of Mátherán, flows west five to ten miles and meeting the tide at Panvel about nine miles from the sea is, during the rest of its course, navigable to vessels of thirty tons. The Pátálganga or A'pta river rises in the Bor pass and after a winding western course of about thirty miles, of which the last fourteen below A'pta are navigable to boats of twelve tons, falls into the south-east corner of the Bombay harbour. The A'mba, the main north drainage line of Central Kolába, rises in the Sahyádris near the Karondah pass about two miles south of Khandála. It flows south-west for about twelve miles till it meets the tidal wave two miles above Nágothna and from Nágothna stretches nearly north a tidal creek for twenty-four miles till it falls into Bombay harbour near Karanjáh. Boats of sixty tons can pass ten miles to Dharamtar and boats of fifteen tons fourteen miles further to Nágothna. The Kundalika or Roha river, the main western line of drainage for central Kolába, rises in the Sahyadris near the Garholot pass in the Bhor state, and, with its tributaries the Bán and the A'chatbágh, after a course of nearly forty miles, falls into the sea at Revdánda. About halfway to the sea where it meets the tidal wave boats of five tons, and six miles lower, boats of fifty tons pass at high water conducting a considerable traffic in rice firewood fish and salt. The Mándád creek shares with the Kundalika the south-west drainage of central Kolába. It passes about fifteen miles inland to the rugged uplands that bound the Kundálika valley on the south and the Ghod valley on the east. Two small streams, one with a westerly course of about six miles, the other with a south-westerly course of about five miles, join at Koudthara, and passing five miles south-west to Mándád, meet the tidal wave and are joined from the left by the Bámanghar river. After a winding course of about eight miles the Mándád river falls into the Janjira creek ten miles from its mouth. The Mándád creek is navigable as far as Mándád at spring tides by boats of fifty and at ordinary high tides by boats of about twelve tons. The Sávitri or Bánkot river, the chief of Kolába rivers, gathering by itself or tributaries more than half the drainage of the district, rises in the village of old Mahábaleshvar, and meeting the tide two miles above Máhád and passing beyond the Kolába district and dividing Janjira from Ratnágiri, after a course of about fifty-three miles falls into the sea. It has six large tributaries, on the right bank the Kamthi, the Ráygad-Kál, the Gandhári, and the Ghod with its branch the Nizámpur-Kál; and on the left bank the Chola and the Nágeshvari. At high tide the Sávitri is navigable for vessels drawing ten feet as far as Dásgaon. Vessels drawing less than nine feet can at spring tides pass eight miles further to Máhád. In north-east Kolába are six Reservoirs, two in Karjat, the Bhivpuri at Humgaon and the Nána Phadnavis at Khopivli, and four in Panvel, three the Vadála, Krishnála, and Isráli near Panvel town and one the Bhimála at Uran. The three central sub-divisions of Kolába have fifteen large reservoirs, but Máhád and Mángaon have none of any considerable size. Of the fifteen, six are in Alibág. The Alibág reservoir, with an area of about seven acres and a maximum depth of about twenty feet, was built in 1876 at a cost of Rs. 20,000. It holds water all the year and furnishes the chief supply to the town of Alibág. Cheul has two reservoirs, the Bovála lake, an old Hindu work with a maximum depth of fourteen feet and an area of about 2½ acres, holding water throughout the year, and the Naragaon tank with a greatest depth of fifteen feet and an area of six acres. Nagáon has two, the Shri Nágeshvar built about 1773 during the time of Rághoji Angria (1759-1793), with a depth of twenty-one feet, and the Páthardi reservoir said to have been dug during the time of Kanhoji (1698-1728), the founder of the Angria family, with a greatest depth of six feet and an area of 2½ acres, and holding water all the year. At Akshi is a very old reservoir with a greatest depth of fourteen feet, an area of about three acres, and a supply of water that lasts throughout the year. Pen has six large reservoirs four at Pen, one at Vási, and one at Vadáv. The Kásar lake at Pen, built about 1627, has an area of about six acres; the Khavandál reservoir built about the same time, with an area of about three acres; the Chámbhár reservoir built in 1750 with an area of five acres; and the Pen lake formed in 1876 by damming a small valley near Pen with an area of five acres and a depth of about twenty-five feet. Of the three chief reservoirs in the Roha sub-division, one is at Ashtami one at Sanghída and one at Mehda. The Ashtami lake has an area of eight acres and a depth of twenty feet; the Sangída reservoir with an area of seven acres is shallow; and the Mehda pond was built in the time of Báji Ráv Peshwa (1796-1818). The Rock of the Kolába district is trap. In the plains it is found in tabular masses a few feet below the soil and sometimes standing out from the surface. In the hills it is tabular and is also found in irregular masses and shapeless boulders, varying from a few inches to several feet in diameter. In many places the

KOLÁBA.

surface of the trap has a rusty hue showing the presence of iron. Kolába has three Hot Springs at Unheri near Nágothna and at Son and Kondivli in Mahád. The Kolába year falls into four Seasons : the rains from June to October, the damp hot weather in October and November, the cold weather from December to March, and the dry hot weather from March to June. The Climate of Alibág differs somewhat from the rest of the district. The rainfall during the eight years ending 1893 averaged 94 inches, the air at other times is damper, hot winds are unknown, and the sea breeze seldom fails. The only Mineral known to occur in Kolába is iron, of which traces are found in the laterite in different parts of the district. Good building stone is everywhere abundant, sand is plentiful in the rivers, and lime both nodular and from shells is burnt in small quantities. Kolába is fairly rich in Forests (445 square miles). Except patches of mangrove along the river-banks the forests of Kolába are all on the slopes and tops of hills. Of the northern sub-divisions Karjat has valuable reserves both in the Sahyádris and in the great Mátheran-Távli range. Panvel also has a considerable forest area but much of it except the teak-coppiced slopes of Mánikgad is of little value. Each of the central sub-divisions, Pen Alibág and Roha, has large rich forests, while the less thickly wooded southern talukas of Mangaon and Mahád have few reserves. Of Kolába forest produce teak Tectona grandis is the most widely spread and the most valuable. Next come the mango Mangifera indica, *sisu* blackwood Dalbergia latifolia, *dhávda* Anogeissus latifolia once plentiful now rather scarce, and the three principal evergreen hill-forest trees *ain* Terminalia tomentosa a valuable and common tree for house-building and tool-making, *jamba* Xylia dolabriformis, and *kinjal* Terminalia paniculata. The *apta* Bauhinia racemosa, though of almost no use as timber, supplies leaves for country cigarettes or *bidis*. Of nut-yielders are the *avla* Phillanthus emblica, the *chinch* Tamarindus indica, and the *hirda* Terminalia chebula. And of liquor-yielders the *moha* Bassia latifolia, the cocoa-palm Cocos nucifera, the palmyra Borassus flabelliformis, and the wild thick-stemmed palm Caryota urens. Of minor forest produce are fruits gums and grass. With domestic Animals, oxen, cows, buffaloes, horses, sheep and goats, Kolába is fairly stocked. Except a few traders and large landowners who keep Gujarát bullocks, almost all the oxen of the district are of local breed. The Kolába buffaloes are all of local breed, smaller blacker and smoother-skinned than those of Gujarát. Of sheep, except a few reared in the district, all come from the Dekhan. Goats are kept by some Musalmáns and lower class Hindus chiefly for the milk. Ponies are brought from the Dekhan by Dhangars and Banjáris. Of dogs, the Cháran dog, brought by Cháran grain-dealers, is a sturdy brave animal. For so hilly and woody a district Central Kolába is poorly stocked with game. One or two tigers Felis tigris are generally to be found especially in the Ságargad range. The Panther Felis pardus is less uncommon, but the large area of forest prevents them being often found. The other animals of the feline race are the striped hyæna Hyæna striata, the common jungle cat Felis chaus, the black wild cat Paradoxura musanga, and the civet cat Vivevia mallaccensis. The black bear Ursus labiatus is occasionally found on the Sayhádris, and the Indian otter Lutra nair on the Mándád creek. Of deer, the *sámbar* Rusa aristotelis, the spotted deer Axis maculatus, and the mouse deer Memumna indica, are rare. The canine deer Cervulus aureus is not uncommon, and the four-horned antelope Tetraceros quadricornis is found in every forest. Of game birds the chief is the snipe. Duck are neither common nor of many kinds. The other birds are partridges, quail, plovers, lapwings, curlew, peafowl, gray jungle-fowl, red spurfowl, and the common rock and green pigeons. The sea-fisheries especially of the Alibág villages are important. During the rains many of the rivers abound in good fish. At other times the distance to which the tide passes inland restricts the area available for freshwater fishing. Snakes are numerous but of no great variety, and the cobra though common does not cause any large number of deaths. Agriculture, the most important industry of the district, supports about 70 per cent of the poulation. The Soils are of four chief varieties diluvial and alluvial, powdered laterite and trap, clayey mould resting on trap, and soil containing marine deposits with much sand and other matter in concretion. The chief grains are rice *bhát* Oryza sativa, *ragi* Eleusine corocana, *vari* Panicum miliare, and *kodra* Paspalum scrobiculatum. Of oil-seeds sesame Sesamum indicum, and *san* Crotolaria juncea : of pulses, *udid* Phaseolus mungo, *tur* Cajanus indicus, and *mug* Phaseolus radiatus. The betel-vine and betel-palm are grown in many gardens. The special garden produce is the pineapple Ananassa sativa which is cultivated in large quantities in Cheul and Revdanda.

BOMBAY HARBOUR.

To the north of Alibág or north-west Kolába stretches the broad south opening of Bombay Harbour. Bombay harbour is the southern portion of the gulf which, with a sea front of about fifty miles, from near Alibág in the south to beyond Bassein in the north, curves in a wide sweep about sixteen miles inland. In the northern half of its inland course this gulf forms a sound from three miles to half a mile broad, winding between the hilly island of Sálsette and the mainland. In its southern half the gulf broadens into the harbour of Bombay ten to twelve miles wide, which from Mándva in west Alibág to Belápur and Trombay at the harbour head, forms a stretch of water spreading inland about sixteen miles. Besides the lofty island of Sálsette (1,540) the waters of the gulf near its top surround the low greenery of Hog Island and the double-peaked ridges of Elephanta and Karanja. North of Karanja in midwater lies the low line of Butcher's Island, and, off the south shore of Bombay, Cross Island, the Middle Ground Shoal, and the Oyster Rock. To the south of the harbour mouth rise the bushy knoll of Kanheri and the flat black rock of Underi.

BOMBAY.

From the south-west shore of Sálsette, beyond the shallow half-mile of the Máhim creek, the island of Bombay, a belt about three miles broad and eleven miles long, stretches south. This island of Bombay is formed by two broken ridges lying roughly parallel north-east and south-west, the western of basalt the eastern of green stone, at the highest about 285 feet above mean sea level. Through breaks in the two ridges the low flat between them

was formerly flooded at high tide, leaving the seven islands of Máhim Varli and Sion on the north, of Mázagon and Bombay in the centre, and of Old Woman's island and Colába in the south. During the last two hundred years the constant filling of small hollows, occasional large reclamations, and the building of the great Hornby (A.D. 1680 - 1780) and several smaller sea ramparts or vellards have turned the seven islands into one unbroken belt of land flanked by the two broken ridges, which, in the south, separated about three miles by the reef-guarded waters of Back Bay, end south-west in Malabár Point and south in Colába. Beyond Colába the lines of the two ridges intersecting below high-water level form the dangerous reefs which are guarded by the Prongs' Light-house. To the north-east and north the fishing villages and rice and salt lands of Sewri Mátunga and Sion, to the north and north-west the palm groves of Máhim, to the west the Varli-Malabár ridge of high land given up to the scattered residences of the rich, and, in the extreme south, the point of Colába set apart for the military, fringe and narrow the area of the city. Except in the north where the flat land is waste or is used for factories, and the Esplanade and great public buildings of the west, the city area, both in the fort and in the native town further to the north, is so packed with huge many-storeyed warrens that it contains four-fifths of the 820,000 people of the island. Apart from the total of Rs. 4,47,000 which its trade supplies to the Port Trust, the island yields a general revenue of about Rs. 75,90,000 and a municipal revenue of Rs. 66,00,000, that is a rough total revenue of about Rs. 1,46,39,000. The high flat ledge to the east of the reservoir plateau on Bandárwáda hill commands one of the completest and most central views of Bombay and its surroundings. To the north a sprinkling of trees and patches of green garden and orchard freshen the foreground of brown roofs and yellow house fronts. Across the muddy Tank Bandar foreshore and the coal heaps of Frere Bandar stand the quarried face of Brae hill, and the Jubilee, Indo-Chinese, and National Mills clustered at the foot of the woody slopes of Golangi or Flagstaff hill. To the right the bare sides of Rowli and Antop rise beyond the fishing village and rock-fort of Sewri. In the distance behind Sewri hill, looms the dim table-land of Tungar (2,250). Closer at hand stretching east are the woody slopes and waving outline of Salsette (1,540), its central hills gathered in three main points above Vehar Tulsi and Yeur. Further east, across the north bay and mud flat of the harbour, behind the green swamps and the gray salt lands of Mahul or north-west Trombay, rise the knolls of the Parshik hills, and, over them, thirty miles inland, seen only in the clearest air, the lofty deep-cleft crest of Mahuli (2,815) the guardian of Tánsa Lake. At the east foot of Bhandarwáda hill the half-mile belt that stretches eastwards to the harbour, with a fair scattering of plantains, cocoa palms, tamarinds, mangoes, and pipals is thick with brown-roofed yellow-faced dwellings, from which stand out the picturesque pale-gray west fronts of two Portuguese churches, Notre Senhora De Rozario at the hill-foot and Gloria a few hundred yards to the south-east. Fringing the foreshore are the Peninsular and Oriental dockyard, the Mazagon landing-pier, and the British India dockyard. Further south, close to the hill-foot, are the network of sidings and the long lines of low gray sheds that form the Wádi Bandar terminus. On the left, out from acres of shed roofs, rises the Port Trust Clock Tower and between the tower and the harbour are the rectangular pit of the Merewether dry dock and the broad basins of the Prince's and Victoria wet docks a thicket of lofty masts. South, over the Wadi Bandar sheds and sidings, for more than two miles, stretch in strange close-packed confusion piles of many-storeyed dwellings, their white and yellow ends and fronts crowned with peaked gables and brown-tiled hummocky roofs topped here and there by a flat view-terrace. Beyond these miles of thick-packed dwellings, on the left, at the harbour side, stand the tower of the Port Trust Moody Bay offices and the Castle Flag-Staff. To the right, from the rough sea of roofs, rises, Venice-like, a notable cluster of public buildings, the light pinnacles of the Cathedral, the lofty crocket-ribbed dome of the Victoria Terminus, the peak-roofed finials of the Elphinstone College and Secretariat, the rounded summit and tiny side minarets of the huge Municipal buildings, the tall square shaft statued-drum and plumed pinnacle of the Rajabái Clock-tower (280) overtopping a confusion of lofty roofs, the steep rail-tipped roof of the short High Court tower (180), and the turrets of the Public Works Secretariat, the Post, and the Telegraph offices. To the right of the Rajabái tower, out of the distant low green line of Colába, rise the spire of the Memorial Church and the column of the Prongs Light-house (146). In the middle distance, to the right of the High Court, the high-pitched roof of the Police Court, the clock tower of the Crawford Market, the finial of the Gokaldás Hospital, and the lantern of St. Xavier's College show like islands in the sea of roofs and tree-tops. To the west, close at hand, are the reservoir filter-beds and gardens of the lower western top of Bhandárwáda hill. Beyond Bhandárwáda hill to the south-west, behind the line of the Great Indian Peninsula Railway, stretches the scarped cliff of Navroji hill (192), its top and western slopes thick with houses. Further west from the broken mass of roofs that stretch to the palms of Girgaum stand out the wide enclosure and the lofty turrets and pinnacles of the Jamsetji and Motlibái Hospitals. Still more to the right, among the brown roofs that spread to the factories of Tardeo and the foot of Cumbala hill, rise the cupola of the Synagogue, the obelisk of Byculla Church, and the smooth slender twin spires of St. Mary's College. To the north-west, between the Bhandárwáda reservoir and the gray of the Flats, the crowd of brown roofs is hidden and broken by the gardens and mango orchards of Mazagon, and adorned by the golden-spiked gleaming white dome and minarets of His Highness Aga Khan's Tomb, and the peak-roofed tower of the Technical Institute. Further to the right, across the middle distance, as far as the green belt of the Máhim palm groves, stretch the Flats bristling with forty lofty chimney stalks and laden with the mighty masses of the Leopold, David, Petit, Imperial, Sun, Jacob, New Sassoon, and other huge factories. Round this great city, to the north-east east and south, stretch the broad waters of the harbour, according to the hour and the season blue golden tawny or steel gray, with its flocks of small white-winged harbour craft, and, at their moorings, lines and clusters of lading and discharging steamers, fleets of peak-prowed lofty-pooped sea-faring *baglas dhingis* and *kotias*, and a sprinkling of stately square-rigged ships. Among the shipping, opposite the Carnac Bandar, lies the bare rocky mound of Cross Island, and about two miles south off the Apollo Bandar the small flat circle of the Middle Ground Shoal. Across the harbour the north-east is filled by the long brown back of Trombay (1,000) sloping south to the point of Pir Pav. In the east lies the low greenery of Hog Island. In midwater is the flat rocky line of Butcher's Island, and, behind it, the woody hills of Elephanta (658) and to the south-east the separate sharp-cut crests of Little (760) and of Great (980) Karanja. Inland, beyond the low broken line of the Parshik hills, the shivered cliffs and the flat-topped bluffs of the Tavli-Mátherán range fill the whole eastern view. In this range from north to south are the bastions of Tavli, the Cathedral Rocks of Bhav Malang (2,300), the smaller buttresses of Mhas-Máda, the pillar of Návra-Navri, the castle crest of Chanderi, the low fortified head of Peb, the long walls of Matherán and Prabhal (2,500), the broken pillars of Isalgadh the False Funnel and of Karnala (1,540) the True Funnel, and the comb of Manikgad (1,800). In the extreme east, through breaks in the Matherán range, looms the dim wall of the Sahyadris. Behind the comb of Manikgad to the left are the gap of the Bor Ghat and the heights round Khandala and, in the clearest air, the more distant forts of Visapur (3,550) and Lohogad (3,415). To the right the knuckle tip of Nagphani or the Duke's Nose stands in front of the long plateau of Sakarpathar (3,000) and the saw-teeth of Jambulni, with, in clear air, more distant peaks perhaps Tung and Tikona in Bhor. South of

BOMBAY.

Jambulni the line of the Sahyádris rises in a group of noble hills of which Devgad, Morva, Visakar, Kunrigad, Masagaum, and part of Sálsar (3,322) in south Poona are visible, and the rest of Sálsar and Tal Baili also in south Poona and Bhorap in Bhor are hid by the slope of north Karanja. In the gap between the two Karanjas stands the wooded western top of Mara Dongar the Pen hill. Further south, between the west point of Great Karanja and the Bluff in north-east Alibág, the long hill-flanked valley of the Amba river or Nágothna creek winds twenty-six miles south into the heart of the Bhor hills. About ten miles south of the Alibág Bluff, from a sharp cliff overhanging the Amba creek, the main range of the Alibág hills stretches west till, near the fortified top of Ságargadh (1,164), it is hid by the beacon-bearing slope of the Alibág Bluff. To the right the crest of the Bluff sweeps south and west rising to the sacred wooded head of Kankeshvar (1,261), which falls westward to the sea and the faint outlying circle of Kenery island. Behind the western spurs of Kankeshwar stands the bare block of the western Ságargadh range centering in the point of Parhur (1,050). Fifteen miles south, over the low lines of the Alibág palms, the land ends in the dim level crest of the Roha and Janjira hills. From the palm groves of Alibág, past the low line of Henery (Underi) and the rocky knoll of Kenery (Khanderi), the sea spreads round the points and reefs of Colába across the palm-fringed curve of Back Bay till it is hid by the woody bluff of Malabár Point which rises gently northwards to the house and palmyra-crowned crest of the Malabár (280) and Cumbala ridges (250). North-west, across the palm-dotted curve of the Great Vellard, is a second stretch of open sand-brightened sea, hid for a time by the woody hillock of Love Grove and again opening on either side of the rock of Mártand, till it is once more lost behind the woody crest of Varli (200), which, in a broken line, leads north, till the circle is completed in the palm groves of Máhim and the leafy gardens and rice lands of Parel and Mátunga overtopped by the casuarinas of Bándra hill and the long ridge of Pali.

THA'NA.

Tha'na, between 18° 42′ and 20° 4′ north latitude and 72° 45′ and 73° 48′ east longitude, has an estimated area of 3,579 square miles, a population of over 819,580, and a realisable land revenue of Rs. 12,09,382. Starting from the island of Sálsette to the north of Bombay, and from the north limits of the Panvel and Karjat sub-divisions of Kolába, which, in a somewhat irregular line continue east to the Sahyadris, the rough wedge of Thána, including the small hill-state of Jawhár, stretches ninety miles north narrowing from seventy miles in the south to five on the Daman and Surat frontier. In the north for about thirteen miles the Kálu and the Damanganga rivers separate Thána from the Portuguese territories of Daman and the district of Surat. South of Daman the Thána boundary runs east, till it meets the lands of Dharampur and Násik. Further south as far as the Tal pass no well-marked boundary parts Thána from Násik. From the Tal Ghát for sixty miles to the south-east and then for about twenty-five miles to the south-west the Sahyádri hills separate Thána from Násik Ahmednagar and Poona. With the Karjat and Panvel sub-divisions of Kolába in the south, the western sea line of Thána begins from Bándra in south-west Sálsette and runs north sixty-five miles to Dáhánu and from Dáhánu twenty-five miles north-east to the mouth of the Damanganga. For administrative purposes Thána is distributed over the nine sub-divisions of Dáhánu, Máhim, Váda, Bassein, Bhiwndi, Sháhápur, Sálsette, Kalyán, and Murbád, and the small state of Jawhár (534 square miles; 52,831 people; and Rs. 2,37,444 gross revenue). In the matter of aspect the lands of Thána form two divisions, a coast belt and an inland belt. Of the coast belt the character varies to the north and to the south of the entrance to the beautiful Vaitarna river about halfway between Bándra and Dáhánu. North of the Vaitarna, from flat shores long sandy spits run into muddy shallows. The rivers are little more than streams and the creeks are small openings never passing further than ten miles inland. Tracts of slightly rising ground covered by palmyra trees and divided by salt marsh stretch to the foot of the hills which are sufficiently high and varied in outline to mask the flatness of the nearer country. All along the coast are thriving populous villages set in treeless rice flats fringed and broken by palm and sugar-cane plantations or by betel-leaf and plantain orchards. South of the Vaitarna most of the coast is included in the great much-silted gulf of many islands that runs from Bassein to the southern shore of Bombay harbour. Round the top of Bombay harbour large tracts which are now rice land must once have been sea or salt marsh. This section of the coast is full of beauty. The dreariness of the salt flats is redeemed by the islands, the winding channels, and the background of hills. The creek that divides Sálsette from the mainland, its waters winding among woody hills and green mangrove swamps, and its feeder the Ulhás river up to Kalyán through wilder and more barren scenery are from end to end varied and picturesque. Except in the north where, as in the Jawhár state, it often rises in large plateaux a thousand to fifteen hundred feet high the well-wooded and watered inland country is a series of flat rice tracts broken by ranges of hills. Inland from Sálsette towards the Sahyádri hills, though the absence of hedges gives a bare uncared-for look, all the available level is under skilful and gainful rice tillage and the lower slopes and spurs are under panics. Though little more than monsoon torrents the pools of many streams hold water throughout the year. The skirts of the hills and the neighbourhood of village sites are fairly stocked with trees. And the brooding presence of the high wall of the Sahyádris and the bold scarps and fantastic outlines of isolated hills many of them fortified or enriched with ancient caves give a dignity and interest to inland Thána. North of Sálsette and east of the Baroda Railway the country is rough with hills and valleys covered by almost unbroken forest and bush. Here and there patches are cleared for tillage which with the exception of a small rice-yielding portion are devoted to the raising of panics and other poorer grains. In the extreme north the land is leveler and has a deeper soil with large timber including handsome *mahuva* trees. The north-eastern plateaux, about 1,500 feet above the sea, are gashed by deep woody gorges through which the Sahyádri streams rush westwards. These uplands form a step between the Konkan lowlands and the high plain of the Dekhan, and except that their air is fresher and moister differ little from the rest of the district. From the north point of Mokhada about thirty miles north of the Tal pass, though the line is not well marked, the Sahyádris, winding irregularly south-east and south, include the two high hills of Vatwad and Basgad

the west end of the Anjaniri-Trimbak range in Násik. About ten miles south is Shirghát down which flows the Vaitarna and behind the Vaitarna valley near Igatpuri the prominent peak of Válvihir. South of the Vaitarna and to the north of the Tal reversing station stands the fort of Balvantgad. From this point the Sahyádris in an irregular line, first thirty miles south-east and then about twenty miles south-west, form a mighty wall from 2,000 to 3,000 feet high, their sheer cliffs broken by narrow horizontal belts of grass and forest, their crests rising in isolated peaks and rocky cliffs. The large flat-topped hill to the south-east of Kására at the foot of the Tal pass is the Vaghachápaththár or Tiger's Terrace. Over its shoulder is Kalsubái, the highest land (5,400) between the Himálayas and the Nilgiris, and to the south of it Alang and Kulang. A little lower than the rest is the conical peak of Bhavání. Next comes the great mass of Aja Parvat where Shahápur and Murbád meet. From this the line of the Sahyádris runs more east to the great hill of Harishchandragad and the Málsej pass the easiest opening in the Ghats between the Tal pass in the north and the Bor pass in the south. South of Málsej the Ghát line turns to the west ten miles to the Nána pass between the twin hill-forts of Bahirugad on the north and of Jivdhán on the south. From the Nána pass the main line runs five miles south to the A'mboli pass. About two miles south-west of the A'mboli pass is the Ganpatigarud temple cut in the face of the cliff, with, according to the local story, an underground passage to Junnar in Poona. Two miles south in a deep valley is the Don pass and near it the Tringadhára pass. At this point east of the main line of the Sahyádris stand three conical hills Machhindarnath, the fortified and cave-cut Gorakhnath, and Neminath. Four miles further south is the A'vapa pass and the fortified peak of Shitgad, and, five miles further, near the gorge that leads to the great hill of Bhimáshankar, the line of the Sahyádris passes south into the Karjat sub-division of the Kolába district. Except the ridge of the Sahyádris, the ruggedest tract in Thána roughened by many separate ranges and from ten to twenty miles broad runs parallel to the coast from ten to thirty miles inland. In the south of this tract are the Sálsette hills and in Bassein rises the lofty peak of Kámandurg (2,160 feet) a beautiful feature in the water journey from Thána to Bassein. Connected with Kámandurg on the north is the flat laterite-capped Tungár (2,300 feet). About ten miles north-east of Tungár is the range that centres in Takmak (2,616 feet), and further east, parallel to Takmak, a line of hills that starting from Bhiwndi runs almost as far north as Manor with Dayahári and the old Marátha fort of Gotára (1,800) as its leading centres. To the west, between the railway and the Surya river, runs an unbroken chain of hills whose chief peaks are Kaldurg (1,550 feet), Tandulvádi, and Asava near Boisar. In the south-west corner of the Máhim sub-division is the Pophli hill known as the home of Meghráj the Lord of Clouds. The coast range continues in Dáhánu as far north as Vasa south of Varoli. North of Varoli are a few small detached hills, the chief being Indragad (405) in the extreme north. Near the border of Mokháda and Jawhár are a few hills of which the curious cone of Mahálakshmi (1,540) and Gambhirgad (2,270) are the highest. Further inland to the north-east of Manor is Pola and about eight miles south of Manor the solitary fortified knobs of Kohaj (1,906). The chief hills in the comparatively level country between this tract and the Sahyádris are, in south Váda, Dávja, Kapri, Indgaon, Ikna, and Domkávla. Four miles north-west of the Shahápur station stands the massive cleft top of Máhuli (2,000). North of this Bhopatgad (1,500) is the only considerable hill. As all Thána Rivers rise in the western slopes of the Sahyádris not more than fifty miles from the sea, none of them attain either size or importance. Forcing their passages from the hills along rocky deep-cut channels, their course lies westwards between steep banks and over rocky beds. While the rains last they bear to the sea a large volume of water, but early in the dry weather most of them dwindle to chains of pools divided by walls of rock. After meeting the tide, from eight to thirty miles from the sea, among low mangrove-covered salt-marshes, they wind in mudbanked sometimes rockbound channels in many places bare at low tide and at high-water navigable for boats of five to sixty tons. The Vaitarna and the Ulhás, whose estuaries form the northern and southern extremities of the Bassein sub-division, are the most considerable of the Thána rivers. The Vaitarna, in whose lower reaches and estuary are some of the most beautiful scenes in the Konkan, takes its rise from the Trimbak hills in Násik, opposite the source of the Godávari. It enters Thána at Vihigáon near Kására, and meeting the tidal wave within two miles of Manor, up to which vessels of twenty-five tons can ply, after a course of about seventy miles enters the sea at Agáshi. The Ulhás, the other great Thána river, rising in the ravines north of the Bor pass, after a north-west course of about eighty miles passes into the Bassein creek about three miles north of Thána. Of smaller streams may be mentioned the Kalu and the Varoli in the north and the Ganga in Máhim. Thána has no natural Lakes. But the wants and the wealth of Bombay have beautified the district with three Reservoirs of first class importance. Of these two, Vehár and Tulsi, are in central Sálsette, and Tánsa, the third and greatest, is about seven miles north-west of the Átgaon station on the north-east or Jabalpur branch of the Great Indian Peninsula Railway. Of the three lakes Vehár, about fifteen miles from Bombay, built in 1860 at a cost of Rs. 56 lákhs, has an area of 1,400 acres and furnishes a daily supply of 8,000,000 gallons. Tulsi, about two miles north of Vehár, opened in 1879 at a cost of Rs. 40 lákhs, has an area of 331 acres and a daily supply of 4¾ million gallons. The great lake of Tánsa about sixty miles north-east of Bombay was completed in 1891 at a cost including piping and conduits of Rs. 1½ krores. It has an area of 3,520 acres and a daily supply of 21 million gallons. A fourth reservoir at Pawai, about one mile south of Vehár, built in 1889 at a cost of Rs. 5¾ lákhs, as a temporary supplement to Vehár, has an area of 365 acres and an available daily supply of 2 million gallons. Besides the Lakes for which the district is indebted to Bombay the prettily placed Pokran lake at the foot of the eastern slope of the Yeur hills about two miles north-west of Thána, was built for the supply of drinking water to that town in 1880-81 at a cost of Rs. 84,630 with an area of 11¼ acres and an estimated daily supply of 120,000 gallons. Next to these five lakes the leading reservoirs are thus distributed. One in Dáhánu, one in Máhim, one in Váda, one in Shahápur, two in Bassein, one in Bhiwndi, eight in Sálsette, two in Kalyán, and one in Murbád. Except in the alluvial valleys the district consists almost entirely of the Dekhan traps and their associates. North of Bombay a vein of basalt runs from Bándra along the shore. At Vasava it exhibits a series of fragments of imperfect columns, and at Dongri in Sálsette, opposite Bassein, the hill below the old fort of Kalyán is composed of remarkably perfect basalt columns. The special geological feature in the district from Bassein northwards are the traces of extensive denudation and partial reproduction of land. These traces can best be studied at a low sandstone cliff near the coast of Shrigaon in Kelve-Máhim táluka. Of the line of Hot Springs that occur along the west coast, Thána has four representatives in Máhim Váda Bhiwndi and Bassein. During the eight years ending 1893 the rainfall averaged 103 inches. The whole supply of rain is brought by the south-west monsoon and generally falls between the beginning of June and the end of October. The great heat of the sun and the drying of this excessive moisture make October and November feverish everywhere except along the coast. Cold weather seldom sets in before December and is much shorter and less bracing than in Gujarát or the north Dekhan. In March and April hot winds prevail and in the inland tracts are troublesome, though they seldom last late in the day. Though the laterite which caps the Mátherán Prabhal and Máhuli hills, and the water of many springs show signs of iron, and the Bhiwndi hot springs present traces of sulphur, Thána is entirely without workable Minerals. The trapstone and basalt found almost all over the district yield good building

THA'NA.

stone and road metal and the nodular limestone found in large quantities near Bándra and Gorái in west Sálsette has proved an important factor in the building of Bombay. The liquor-yielding trees are the cocoa-palm Cocos nucifera, the brab palm Borassus flabelliformis, the hill-palm Caryota urens, the wild date Phœnix sylvestris, and to a less extent the *mhowra* Bassia latifolia. Of forest Trees Thána has a great variety and among its fruit trees the graft mango of the coast orchards reaches a high pitch of excellence. The forest products are timber, firewood, charcoal, bamboos, *kárvi*, and *tembhurni* and *apta* leaves. The Government reserves (667 square miles) are chiefly in Sháhápur, Dáhánu, Máhim, Váda, Sálsette, and Bassein. Of domestic Animals Thána has no peculiar breed. The wide forest and hill area shelters a number of the larger wild animals, among them the tiger, black leopard, bison, sámbar, and wild dog Cuon rutilans. The sea fisheries of Thána are important, and, between the supply of fresh fish for the great market of Bombay and of dry fish for the Dekhan and other inland districts, support a large section of the population. The oysters of Kálu in the north of the district bear an excellent character. Of the pearls which are mentioned by Pliny in A.D. 77 and by Idrisi in A.D. 1135 specimens are still found in the Thána creek between Belápur and Thána, and exported by Bombay merchants to China. Agriculture supports more than 63 per cent of the population. The main varieties of Soil are sweet and salt. Sweet land is either black or red; the black of the plain rice-fields and the red of the flat tops and slopes of the trap and laterite hills. In many places along the coast, especially in the garden lands of Bassein and Máhim, the black soil is lighter and more sandy than in the interior. Among the Crops of Thána rice Oryza sativa holds the first place, *rági* Eleusine coracana the second, *vari* Panicum miliaceum the third, pulse chiefly *udid* Phaseolus mungo the fourth, and *harik* Paspalum scrobiculatum the fifth; the areas under wheat Triticum æstivum and Indian millet Sorghum vulgare are insignificant. Of pulses besides *udid* mentioned above gram *harbhári* Cicer arietinum is grown to the south-west of Kalyán and *wál* Dolichos lablab in the damper rice bottoms in many parts of the district. Of oilseeds *khurásni* literally sun-flower Verbesina sativa is largely grown, and of fibres *sas* or Bombay hemp Crotalaria juncea. In Bassein sugarcane and plantains; in Máhim ginger and the betel vine; and in Bhiwndi chillies Capsicum annuum are the chief watered crops. In Trombay large supplies of mangoes and in Sálsette of both mangoes and pumelos are raised for the Bombay market.

DAMAN.

The circle ends in the Portuguese settlement of Daman (82 square miles; 40,000 people) with its rivermouth town and its two forts, the Greater, with its palace hospital barracks and ruined monasteries, on the south or Thána bank, and the Less, with its church and parochial house, on the north or Gujarát bank of the Daman-Ganga river.

POLITICAL.

Historical Summary.

HISTORY. Ancient History. The People.

In the earliest times of which we have any record the Aryans were already settled on the Indus; but the west coast of India was peopled by Dravidian tribes, who lived in forts and villages under the rule of kings, carried on the ordinary arts of life, such as weaving pottery and working in metals, and worshipped spirits and demons of all degrees, besides a supreme deity known as *Ko* (King).

Foreign Trade, B.C. 1000.

By 1000 B.C. a trade sprang up with the Red Sea in "gold, ivory, apes, and peacocks," while teak and cotton were exported to Babylon, probably through merchants from Elam (Khuzistan), who brought with them to India the knowledge of the lunar mansions *(nakshatra)* and the Babylonian weights *(maná)*. About B.C. 600 the Red Sea trade seems to have fallen into the hands of the Jawan of Western Arabia, through whom the West Arabian alphabet reached India, where it became the parent of the Maurya character, and ultimately of the modern Nágarí.

Persian Rule, B.C. 507.

About B.C. 507 Darius conquered the whole Indus valley and gave a fresh impetus to trade: but before Alexander's time Persian rule in Sind had passed away and traffic by sea between Sind, the Persian Gulf, and the coast of Arabia seems to have been extinct.

Bráhman Settlers, B.C. 600-300.

Meanwhile (C. 600-300 B.C.) India south of the Vindhyas was being Aryanised in faith and partly in speech, not at first by conquest, but by peaceful settlements of Bráhmans at such places as Govardhan (Násik), Karád, Chiplún, Devrukh, and elsewhere along the line of the Western Gháts.

Mauryas, B.C. 322-185.

For Western India the importance of Alexander's march down the Indus (B.C. 325) lay chiefly in the fact that it cleared the way for the huge empire of the Mauryas, whose founder, the adventurer Chandragupta (B.C. 322-298), ruled from Pátaliputra (Patna) on the Ganges the whole of India north of the Vindhyas, including Sind and Gujarát, and received a Greek ambassador at his Court. His grandson As'oka (B.C. 273-240), an ardent Buddhist, added to this kingdom the whole Western Coast down to Mysore, and brought under his influence the Maráthás of the Dekhan (Rástikas and Peṭenikas), as well as Berar and the Telugu country further east. Western India was placed under the prince-governor of Ujjain, while such towns as Junágadh Sopárá and Vanavási were the head-quarters of local chiefs *(prádeśikas)* and royal officers *(mahámátras)*, some of whom were foreigners *(Yavanas)*. Missions spread Buddhism among the traders of the coast towns and the Western Dekhan, which by this time were more or less completely Aryanised: and Jainism also seems to have first reached the south at this period. It was a time of peace and of

active intercourse with foreign nations, especially with the Syrian Greeks. As'oka's empire broke up after his death, the western provinces being divided between the princes of Takshas'ila and Ujjain: but the dynasty maintained its existence till B.C. 185, and its name at least revived in much later times in the Koṇkan (6th century) and in Málwa (8th century).

The fall of the Mauryas was followed by the invasion of the Panjáb by the Baktrian Greeks (B.C. 180), who occupied the whole country as far east as Mathurá. Menander (B.C. 110), a prince of Buddhist leanings, and his successor Apollodotus (B.C. 100) are known to have ruled in Sind and Káthiáwár. Baktrian Greeks, B.C. 180 - 100.

Further south the heritage of the Mauryas fell to the Sátaváhanas of Paithan on the Godávari, a Dravidian family whose power by B.C. 100 had reached Násik and the Western Gháts. Sátaváhanas, B.C. 100.

In the meantime a great migration of the nations of Northern Asia brought the Yuechi or Kushán into Baktria (B.C. 126) and eventually (B.C. 20) into North-Western India, while a number of Turki or Tartar tribes overran Seistán and Baluchistán (B.C. 100), and established several kingdoms there and in Sind. The new-comers infused new vigour into Indian culture; Buddhism now first began to cross the frontiers (A.D. 70); and the trade with Rome, which sprang up about A.D. 40, brought ever-growing wealth to the cities of the Western Coast. Kushán Invasion, B.C. 125 - 120.

About A.D. 100 the Northern Kshatrapa Nahapána occupied Málwa Káthiáwár and the Western Dekhan down to Junnar, where he ruled till A.D. 124, perhaps as a lieutenant of the Kushán of Mathurá. About A.D. 130 the Sátaváhanas of Paithan recovered their Dekhan provinces, while Nahapána's northern dominions fell into the hands of the Kshatrapa Chashṭana, who perhaps came from Sind. Chashṭana's line retained Káthiáwár and Gujarát till about 300 A.D., and their greatest ruler, Rudradáman (A.D. 150), held the seaboard from the mouth of the Indus to the Damanganga, together with the inland country from Múltán to Bhilsa. The kingdom of his rivals, the Sátaváhanas, stretched across the peninsula from sea to sea and on the west from the Damanganga to Vanavási, the chief towns being Dhanakaṭaka (Dharnikot) in the Kistna delta, Tagara, and Paithan on the Godávari. About A.D. 210 their power in the west seems to have died out. But for the commercial jealousies arising out of the rival claims of Broach and Kalyán to the trade with Europe, the relations of the two empires were peaceful and the period was one of great prosperity. Bráhmans and Buddhists shared the royal bounty; and merchants of Datamiti (Demetrias) in Sind, of Broach in Gujarát, of Násik and Karád in the Dekhan, and of Sopárá and Kalyán in the Konkan, vied with each other in building temples and monasteries on all the main roads to the coast. The Kshatrapas, foreigners as they were, are the first Indian dynasty to use classical Sanskrit in inscriptions, and Rudradáman himself was versed in all the learning of the Bráhmans: and the Sátaváhanas seem to have given much encouragement to Prákrit literature. After the fall of the Paithan dynasty (A.D. 210) Broach monopolised the European trade, which was much encouraged by the Kshatrapas, who were now able to seize and hold Kalyán; but before long through troubles in Sind (A.D. 247), the fall of Palmyra (A.D. 273), and the extinction of Chashṭana's line, commerce fell into decay. Western Kshatrapas and Sataváhanas, A.D. 100 - 400.

The next century and a half (A.D. 300-450) is a period of great obscurity. Of Sind we hear nothing: in Gujarát a series of short-lived Kshatrapa dynasties follow each other till A.D. 410, when the country was conquered by the Guptas of Pátaliputra, who held it, not without difficulty, till about A.D. 460. In the northern Dekhan there are dim traces of the Ábhíras, a northern tribe of Nomads: while the history of the south is a blank. When the curtain rises again in the latter part of the fifth century new races have come upon the scene. New Central Asian hordes, led by the White Huns (A.D. 452), poured into India from the north-west and spread over the country as far as the Narbádá. Transition Period, A.D. 300 - 450.

The sixth century saw the beginning of the Indian Middle Ages, a period marked by the rise of new Rájput races chiefly of foreign origin; by the decay of Buddhism and the growth of Bráhmanic sects; and by the substitution of Persian and Arabian for European influence. Beginning of the Middle Ages, A.D. 450 - 600.

By A.D. 500 a dynasty of Northern Sháhis had established themselves in Sind, whose history was henceforward influenced more by its relations with Persia than by the other Indian powers. Western Káthiáwár was occupied by the Mehrs, a race of Skythian affinities, whose eastward advance was checked by the Valabhis (A.D. 480 - 770), a tribe of more remotely northern descent, who had established themselves in Káthiáwár on the ruins of the Gupta power. The Narbádá valley and South Gujarát were in the hands of wild tribes who owed allegiance to a branch of the Kalachuris of the Central Provinces. The Northern Konkan was ruled by the Mauryas of Purí near Bombay, while the coast further south obeyed the Kadambas of Vanavási, and the Dekhan was the theatre of a struggle between two local tribes, the Chálukyas and the Ráshtrakúṭas.

A century later (A.D. 600) the Sháhis still ruled Sind at Alor and Bráhmanábád and kept up active intercourse, sometimes friendly sometimes hostile, with the Sassanians of Persia. In Northern Sind sun-worship flourished, while in the south Buddhism was strong and the country remained to a great extent untouched by the Brahmanic revival, though about A.D. 630 the Bráhman minister Chách usurped the throne and founded a short-lived dynasty (A.D. 630 - 712). Sind, A.D. 600 - 712.

HISTORY.

Middle Ages.

Gurjars, A.D. 600-745.

Further south the states of Gujarát were overshadowed by the power of a new and energetic race, the Gurjars, who had probably entered India with the White Huns (A.D. 452), and who, besides more northerly settlements, established themselves at Bhinmál in Rájputána near Mount Abu. By A.D. 600 they had overrun north-east Káthiáwár, received the submission of Valabhi, and set up a branch at Broach (A.D. 585-740). They rapidly assimilated Indian culture, and were the progenitors of some of the most famous Rájput families. For a time, indeed, it seemed as though the empire of the Guptas would be revived by Harsha of Kanauj (A.D. 608-649); but the confusion that followed his death left the field again open for the Bhinmál dynasty, whose fortunes henceforward determined the fate of Gujarat.

Chálukyas, A.D. 600-742.

Meanwhile (A.D. 600) the Chálukyas had emerged victorious from their struggles in the Dekhan and absorbed the smaller kingdoms of the coast. In the seventh century, which was the time of their greatest prosperity, the senior branch ruled the Dekhan and Konkan with a northern offshoot at Navsári, while a junior line reigned at Vengi in the Kistna delta. The Chálukyas themselves worshipped Vishnu and Siva, but Jainism flourished in the southern Dekhan, and great Buddhist establishments existed at Elura Ajanta and elsewhere in the northern provinces. But after the Arab conquest of Persia (A.D. 640) foreign trade became extinct, and the strength of the Chálukyan empire was wasted in endless wars of conquest with its southern and eastern neighbours.

Arabs in Sind, A.D. 712-770.

The eighth century saw the fall of the Western Chálukya dynasty and the entrance of the Musalmáns into Indian politics. In A.D. 712 Muhammad Kásim invaded Sind from the west, overthrew the house of Chách, and subdued the whole country as far as Multán. His untimely death (A.D. 714) did not check the progress of Muhammadan conquest: the governors who succeeded him made Sind an outpost of Islám, from which they ravaged the neighbouring Hindu kingdoms as far as Málwa and Broach. It seems to have been in one of these raids that the famous city of Valabhi was destroyed (A.D. 770).

Gujars, A.D. 746-800.

It was after the first energy of these attacks abated that the Chávadás, a Rájput tribe of Gurjara origin, established the first kingdom of Anahilaváḍa (A.D. 746) probably with the countenance and aid of their kinsmen of Bhinmál, whose empire in the course of the next fifty years covered all Málwa and Rájputána and threatened even the rulers of Bengal.

Rashṭrakútas, A.D. 742.

South of the Mahí also changes not less far-reaching took place. The Ráshṭrakúṭas at last (c. 742 A.D.) overthrew their old enemies the Chálukyas, whom they penned in Mysore, and set up a new empire with its capital at Málkhet (60 miles south-east of Sholápur). The new kingdom was not so extensive as the old, as it did not include the territory of Vengi: but it was strong enough to prevent any northern power securing a lodgment on the southern bank of the Narbádá.

Sind, A.D. 750-950.

The history of the next two centuries (A. D. 750-950) can be told in a few words. The Khalifs had governors in Sind until about A.D. 870, but their empire was then so much embarrassed by the revolted Táhirides of Khorásán (A.D. 820-870) that the Indian provinces were handed over to Yákub Ibn Laith who had set up as an independent chief in Seistán. His family was overthrown in A.D. 903 by the Sámánis of Bukhárá, who however did not enter Sind, which was divided between the Arab chiefs of Mansúra and Multán. Throughout this period tribes of Turki stock filtered through in small bodies from the countries beyond the Oxus, the Sumras settling in Sind, and the Chudásamás passing by way of Cutch to Girnár, where they ruled from c. 850 to 1125 A.D. The Musalmáns were too much occupied with these incursions and with their own intestine quarrels, to push their conquests further into India; but Sind shared in the wonderful advance in prosperity and culture which took place in the Muslim world in the ninth and tenth centuries.

Gurjars, A.D. 800-942.

The empire of the Gurjars of Márwár seems to have very soon shown a tendency to break up into separate states, though Bhinmál still enjoyed a certain pre-eminence and retained its hold over north-east Káthiáwár and Gujarát. The details are very obscure, but the kings of this line seem to have encouraged literature, and especially to have patronised the Jains.

Ráshṭrakúṭas, A.D. 742-973.

Their foreign policy was determined by the presence of the Ráshṭrakúṭas on their southern frontier, which appears to have been usually the Mahí. Neither kingdom was strong enough to destroy the other, or even to encroach to any large extent upon its territory: a state of things to which the dissensions between the Ráshṭrakúṭas of the main line and a branch that ruled in Gujarát may have contributed. The Ráshṭrakúṭas carried on a good deal of desultory frontier fighting and had to meet several attacks from the Chálukyas of the south, but after the reign of Govinda III. (A.D. 808) they do not seem to have attempted conquests on a large scale. They were Saivas in religion, but Amoghavarsha I. (A.D. 850-877) was a patron of Jaina literature. The power and magnificence of the dynasty greatly impressed the Arabs, to whom the Ráshṭrakúṭa king was known as the Balhará (Vallabhrája). But the local chiefs with whom the Arabs chiefly came in contact were the Siláháras of Puri, Cheul, and Tháne, who were made governors of the Konkan in the reign of Amoghavarsha I. Another branch of the same family ruled the coast further south (A.D. 800-1008). The trade with the Persian gulf revived, and brought with it a great influx of Pársi refugees (A.D. 775) who found a ready welcome at the hands of chiefs who honoured impartially Siva, Buddha, and Jina. But this revival of trade was attended with a great outburst of piracy, in which the daring sailors of western Káthiáwár took a leading part.

HISTORY.

Middle Ages.

Changes, A.D. 946-1000.

Sind in the time of Ibn Haukal (A.D. 950) was still ruled by the Arab Amirs of Múltán and Mansúra, but within sixty or seventy years they were overthrown by the Sumras, who seem to have adopted the Karmathian heresy. In A.D. 946 the Gurjar kingdoms were conquered by Mularája Solaṅki, son of a Gurjar chief, who probably ruled somewhere in northern Rájputána. Anahilaváḍa now became the centre of the Gurjar kingdom, as the old capital was too much exposed to the growing power of the Choháns of Ajmir.

A few years later (A.D. 973) a revolution took place in the Dekhan also, when Tailapa II. who was connected in some way with the old Chálukya family, overthrew the Ráshṭrakúṭas and established a new Chálukya kingdom, for whose capital Kalyán in the Dekhan was soon chosen. His follower Bárappa founded a subordinate dynasty in south Gujarát, but further south the Siláháras still continued to rule the coast.

Sind, A.D. 1000-1351.

Henceforward, as had so often been the case before, Sind remained isolated, and shared but seldom in the events which determined Indian history. In southern Sind the Sumras continued in power until A.D. 1351, when they were supplanted by the Sammas: while the northern districts followed the fortunes of the chiefship of Multán, which was held by a Muslim governor in the interest first of the Ghaznevides (A.D. 1010-1176) and afterwards of the Sultáns of Delhi. The Karmathian heretics were treated with great severity by Mahmúd of Ghazni in A.D. 1010 and 1025, and in the course of the eleventh century the Sumras seem to have become orthodox Musalmáns. Their history is obscure, but they retained their territory in spite of the attacks of Kubácha (A.D. 1200) and Altamish (A.D. 1225) and of the Mughal raids during the thirteenth century.

Solaṅkis, A.D. 1000-1143.

In Gujarát the direct descendants of Múlarája ruled at Anahilaváḍa until A.D. 1143. In religion they were Śaivas, and showed a special attachment to the temple of Somnáth, which frequently brought them into collision with the Chudásamás of Junágad who commanded the road to that holy place. The Chudásamás called in the aid of the chiefs of Cutch and Sind (probably the Sumras) and were not finally subdued till A.D. 1113. The northern frontier of the Solaṅki kingdom was constantly threatened by the Choháns of Ajmir, who however never inflicted any serious defeat on the Anahilaváḍa kings. Wars with Málwa were also frequent, till about A.D. 1134 Siddharája defeated the Paramáras and occupied Ujjain. The relations of the Solaṅkis with the Chálukyas of the Dekhan were at first hostile, and some time after A.D. 1050 the Solaṅkis conquered Gujarát south of the Mahí; but the later kings of Kalyán seem to have been on friendly terms with their northern neighbours. The famous sack of Somnáth by Mahmúd of Ghazni (A.D. 1025) seemed to threaten the extinction of the Solaṅki kingdom, but produced no lasting effects, and the Anahilaváḍa chiefs were left free to patronise literature and adorn their chief towns with beautiful buildings.

Chálukyas, A.D. 973-1156.

The Dekhan remained from about A.D. 973 to 1156 in the hands of the Chálukyas of Kalyán, who adopted on a large scale the system begun by their Ráshṭrakúṭa predecessors, of placing large provinces under hereditary governors, a policy which eventually proved fatal to their power. They carried on a series of indecisive wars with the Cholas of Kánchi (Conjeveram), and inflicted severe defeats on the Paramáras of Málwa and the Kalachuris of Tripura (near Jabalpur), but did not attempt any lasting conquest of these kingdoms. They encouraged trade and showed much favour to the Musalmán settlers on the coast, and like most Indian kings of this period, they surrounded themselves with poets and scholars and posed as patrons of literature. But the power of the feudatories always tended to increase at the expense of the central government, while a rival arose in Mysore in the Hoysala line of Halebíd, who first became dangerous about A.D. 1120.

Solaṅkis, A.D. 1143-1242.

Towards the middle of the century (A.D. 1143) the throne of Anahilaváḍa passed to a collateral branch of Múlarája's line, but the change brought with it no alteration in policy beyond an increase in the influence of the Jains. Káthiáwár and Málwa were nominally provinces of Anahilaváḍa, but we still hear of wars against chiefs who continued to resist the Solaṅki arms. The Konkan was invaded (about 1160 A.D.) but without permanent results, while the Choháns of Ajmir continued to threaten the northern frontier. The far more serious danger of Muhammadan conquest was averted by the defeat of Shahábuddín Ghori in A.D. 1178, which saved Gujarát from serious molestation for more than a century. But the Solaṅki kingdom had in its hereditary feudatories the same source of weakness as the Chálukya empire of Kalyán; and when the last scion of Múlarája's line died in A.D. 1242, all power had already passed to the Vághelá chiefs of Dholka.

Troubles in the Dekhan, A.D. 1157-1262.

The same century that saw the decline of the Solaṅkis (A.D. 1143-1242), witnessed also a long and complicated struggle for the sovereignty of the Dekhan. About A.D. 1157, Vijjala, a Kalachuri feudatory of the Chálukyas, set up as an independent ruler of Kalyán, from which the Chálukyas fled; but the new dynasty was hardly founded when it was destroyed by a religious revolution (A.D. 1167) led by Basava, who founded the Lingáyat sect. The southern Dekhan now fell into absolute confusion, and most of the great feudatories claimed independence, while the last of the Chálukyas and of the Kalachuris fought for the mastery, and the Hoysala king stood ready to destroy the victor. In the northern Dekhan, where there were fewer competitors, the feudatory Yádavas of Devagiri had been steadily enlarging their boundaries and strengthening their armies for the final struggle.

The Hoysalas were the first to move. They destroyed the Kalachuris in 1184 A.D. and the Chálukyas in 1192, in which year they also defeated the Yádavas, and for a time it seemed

POLITICAL HISTORY, Middle Ages.

as if they would succeed to the whole heritage of the Chálukyas. But after an interval of struggle the Hoysalas were driven back into Mysore, and the Yádavas under Singhana remained masters of the Dekhan (A.D. 1212). The Konkan chiefs, however, maintained their independence for some time longer.

Vághelas, A.D. 1233-1297.

The Dholka chiefs who about A.D. 1233 superseded the Solankis in Gujarát, belonged to a junior branch of the royal house, but their power was but a feeble caricature of their predecessor's greatness. Their kingdom shrank to a part of northern Gujarát and eastern Káthiáwár, and their wars were little more than cattle-lifting raids. They were obliged to submit to, and to conclude a treaty of alliance with, the Yádava kings of the south. Still at this time commerce flourished and merchants spent large sums in building temples, while court poets and panegyrists were not wanting. But the real weakness of the kingdom is evident from the ease with which Ala-ud-din Khilji's brother Alaf Khán subdued it in a single campaign (A.D. 1297).

Yádavas, A.D. 1312-1318.

The Yádavas also did not long enjoy their kingdom. Their first task, the subjugation of the great feudatories, was completed in the Dekhan about A.D. 1250 and in the Konkan some ten years later. It is notable that we now meet for the first time with Bráhman generals and Bráhman provincial governors, employed in preference to the hereditary local chiefs whose power had proved so dangerous. The Yádavas had now no serious rivals on their frontiers and we hear little of their foreign relations. Their own kingdom was peaceful and prosperous in re-action from the troubles of the preceding century: the treasury was full, learning flourished, and a vernacular literature began to spring up (Jñáneśvara). But these fair prospects were put an end to by an unforeseen enemy. Alá-ud-din Khilji suddenly appeared before Devagiri with 8,000 men, swept off the treasures of king Rámachandra, and exacted a promise of tribute (A.D. 1294). After several revolts the last of the Yádavas was put to death in A.D. 1318 and the Dekhan became a Muhammadan province.

Modern History. SIND.

The summary of the history of the Musalmán and modern periods comes most conveniently under the five leading divisions of the Presidency, Sind, Gujarát, the Dekhan, the Karnátak, and the Konkan. Its importance as the part of India where the power of Islám was first established requires fuller details of the Arab connection with Sind than those already given in the early history summary. In A.C. 637, the fifth year of the reign of the Bráhman Chách under Moghaira, a brother of Uthman, the Khalifah Umar's governor of Bahrein, occurred the first Musalmán attack on Debal or Karáchi. After a reign of forty years (A.C. 673, H. 51), Chách was succeeded by Chandar. Eight years later Chandar made way for Dáhir, who, after a reign of thirty-three years, was killed by the Arabs under Muhammad the son of Kásim. For nearly eighty years after the first Arab invasion (A.C. 637-711), the hardy and warlike Játs and Meds, inhabiting Sind and its western frontiers, stemmed the torrent of Musalmán invasion from the north-west. From the Khiláfat of Muewiyah (A.C. 661-679) to that of the first Walid (A.C. 705-715) the stout and constant resistance offered by these and other more recent northern Turkish settlers so crippled the Arab expeditions both by sea and by land, that all either ended in disaster or at best secured but a weak and passing foothold. The glory of the conquest of Sind was reserved for Muhammad-ibni-Kásim. In A.C. 711 (H. 92) this youthful soldier and statesman, one of the greatest of India's invaders, with a force almost entirely composed of Syrian Arabs, with Játs levies added on the way, marched along the Makrán coast from Shiráz to Sind accompanied by a fleet. He took Debal (Karáchi), Mirún (Haidarábád), and the strong fortress of Sehwán, received the submission of the chief of Búdiya (the modern province of Cutch-Gandáva), returned to Mirún (Haidarábád), and, crossing the Indus, engaged and killed Rái Dáhir at Ráwar (Alor), the modern Rohri. Muhammad's successful campaign established the rule of the Omayyad Khalifáhs in Sind. And except during the weakness of the latter members of that dynasty the province thenceforward remained in Musalmán hands. Under the Abbásis, during the nine reigns which occupied the period between Al Moelasim Billáh (A.D. 833-884) and Al Muktadir Billáh (A.D. 908-932), the gradual decay of their power at Baghdád so weakened their hold on their foreign dependencies, that, on the ruins of the Omayyad possessions in the Indus valley were established two independent kingdoms founded by Arabs of the noble tribe of Koreish. Of these kingdoms the head-quarters of the more northern, comprising the upper valley of the united Indus as far as Aror, was at Multán, and of the more southern, extending from Aror to the sea, at Mansúra or Bráhmanábád about forty-seven miles north of Háidarábád. Independent in all but name the Arab chiefs of Multán and Mansúra rendered homage to the spiritual authority of the Baghdád Khalifáhs. At the close of the tenth century, on the decline of the Karmathians in Egypt and their overflow through Irák into India (A.C. 985), they wrested the supremacy in Multán from the house of Sama and ousted the Habbári dynasty of Arabs from Mansúra. After his conquest of Somnáth, Mahmúd of Ghazni (A.C. 1024-1030) expelled the Karmathians from Multán and Mansúra, and conferred the government of Sind on his vazír. Sind did not long remain under Ghaznavi governors. About A.C. 1032 Ibni-Sumár, the ruler of Multán, laid the foundation of the Sumra dynasty in Sind, at first as a titular vassal of Ghazni, and about A.C. 1051 as an independent ruler. Ibni-Sumár, the founder of this dynasty, though he claimed descent from the noble Koreish tribe, was a Rájpút of the Pramára stock. The house of Sumra with twenty successions lasted nearly three hundred years from A.C. 1053-1351, when Amíl or Hamír, the last of the line, was slain by the Samás. In the sovereignty of Sind the Sumrás were succeeded by the Samás, a branch of the great Yádava stock. Ten years later (A.C. 1361) Sultán Firoz Tughlak of Delhi

invaded Sind, and, during the entire reign of the first Sama ruler Jám Anvar or Unár, the Hákims or viceroys of the Delhi Emperor occupied the greater part of the province. The second Sama ruler Jám Junáh won back Bhakkar from the Turks but his successor had once more to render allegiance to Firoz Tughlak (A.C. 1372). The Sama dynasty, including fifteen successions, became extinct in A.C. 1521. In that year Sháh Beg, whom about A.C. 1519 the Emperor Bábar had driven out of Kandahár, established the dynasty of the house of Arghún tracing descent from the great Changis or Jengiz Khán (A.C. 1211). After his establishment in Sind, Sháh Beg entertained hopes of the conquest of Gujarát, but in 1522 death cut short his schemes. Sháh Beg was succeeded by his son Mirza Sháh Husein in whose reign the Moghal Emperor Humáyún, the father of the great Akbar, on his expulsion from Delhi by Sher Sháh, made two unsuccessful attempts (A.C. 1540-1542) to conquer Sind. After a lifetime of thirty-five years the Arghún dynasty closed with the death of the childless Husein Sháh in A.C. 1554-55. The Tarkháns, as short-lived a dynasty as their predecessors, succeeded. In A.C. 1565, during the reign of Mirza Isa Tarkhán, took place the sack of Thatha by the Firangis (Portuguese). In A.C. 1576 Mirza Isa died and was succeeded by his son Mirza Muhammad Báki, whose offer of the hand of his daughter Sindhiya Begam the Emperor Akbar rejected. In A.C. 1592, after the defeat of Mirza Jáni Beg, Sind was annexed by Akbar and included under the province of Multán. After a century and a half of peace, between the consolidation of the Moghal empire by Akbar and its invasion and dismemberment (A.C. 1739) by Nádir Sháh of Persia, arose the Dáúdputras or sons of Dáud, a wild tribe of weaver warriors. Their victory over the Maháris (A.C. 1603), who had ousted a Balúch race called the Jatois from the land which had Lakhi for its chief town, made the Dáúdputras masters of Upper Sind, a success which they celebrated by founding the town of Shikárpur. The rest of the country was ruled by temporary governors from Delhi till in the latter part of the seventeenth century the Kalhoras rose to notice. In A.C. 1658, Názir Muhammad Kalhora made successful head against the Imperial officers and began to organize a regular government. In A.C. 1701, with the help of the Tálpurs, Yár Muhammad Kalhora seized Shikárpúr and was granted by Aurangzebe (A.C. 1658-1707) the district of Deeraját and the title of Khuda-Yár Khán. About A.C. 1711 Yár Muhammad increased his possessions by taking Kandiáro and Lárkhána as well as the country round Sakkar. On the death of Yár Muhammad his son Núr Muhammad Kalhora conquered Nhár from the Dáúdputras. He also took Sehwán and after some years (A.D. 1736) Bakar, thus establishing his power from Multán to Thatha. Núr Muhammad's success was short-lived. Three years later, Nádir Sháh's (A.D. 1739) invasion detached Thatha and Shikárpúr from the Kalhora possessions and made them part of the Persian dominions. The purchase by Núr Muhammad of Thatha for three lákhs of rupees from the Persian governor roused the anger of the Sháh, who, again swooping on Sindh, made over Shikárpúr to the Dáúdputras and Sibi to the Afgháns. Núr Muhammad fled to Umarkot. Then surrendering he consented to pay the Persian conqueror a tribute of twenty lákhs of rupees and to accept the humble title of Sháh-Quli, the Sháh's slave. In A.D. 1748, after the death of Nádir, Sind became tributary to Ahmed Sháh Durráni. The next monarch Muhammad Murád Yáb Khán founded the town of Murádabád. His son and successor Ghulám Sháh invaded Cutch and took the ports of Basta and Lakhpat. Ghulám Sháh founded the city of Haidarábád on the site of the ancient Nirún and made it his capital in A.D. 1772. During Ghulám Sháh's reign, in A.D. 1758, the English East India Company established a factory at Thatha. But in A.D. 1775, owing to the discouraging treatment of the Company's officers by Ghulám Sháh's son Sarfaráz Khán, the factory was withdrawn. The Baluchis deposed Sarfaráz Khán and after two years of anarchy Ghulám Nabikhán, a brother of Ghulám Sháh, obtained the throne. Ghulám Nabi, who was killed in battle with a rebellious Tálpur chief, was succeeded by his brother Abdur Nabi. About this time the Tálpur chief Mir Bízar rose to power as minister. The assassination of this too powerful servant, whose success in A.D. 1781 in dispersing the Kandahár tribute-collecting forces had roused the jealousy of his master Abdur Nabi, cost the Kalhoras their crown. Abdulláh Khán Tálpur, the son of the murdered minister, seized upon the government and forced the Kalhoras to take shelter in Khelát. On re-establishing himself for a short time Abdur Nabi killed Abdulláh Khán. But Abdulláh's kinsman Fateh Ali again expelled Abdur Nabi from his kingdom, which, notwithstanding repeated efforts, he was never able to regain. In A.D. 1783 Mir Fateh Ali, the first Tálpur, came to the throne of Sind. The Tálpurs divided Sind among their kinsmen, each of whom ruled independently. Mir Fateh Ali, the head of the house, ruled in Haidarábád; Mir Tháro, his son, in Sháhbandar; and Mir Sohráb, his nephew, in Rohri. Thus Haidarábád or Central Sind became the head-quarters of the Shahdádpur family. The Mánikánis, descendants of Mir Tháro, ruled at Mirpur; the descendants of Mir Sohráb at Khairpur, and the families of the three brothers of Fateh Ali added to the complication. In A.D. 1801 Mir Fateh Ali died after recovering Karáchi from Khelát (1792) and, in 1813, his successors recovered Umarkot from Jodhpur. Fateh Ali left a son Mir Sobhdár and three brothers, two of whom retained the chiefship of Haidarábád. In A.D. 1799, twenty-four years after the withdrawal of their factory from Thatha, the English East India Company sent a commercial mission to Sind. The result was not satisfactory. In A.D. 1809 arrangements to prevent the French settling in Sind were concluded between the British and the Mirs of Sind. In 1825 the raids of the Khosas into Cutch and north Gujarát were stopped by a military demonstration, and five years later the Mirs unwillingly allowed Lieutenant, afterwards Sir Alexander, Burnes to sail up the Indus on his mission with presents from the

HISTORY. Modern History. SIND.

British Government to Ranjit Singh, the ruler of the Punjáb. In A.D. 1832 Colonel Pottinger concluded a treaty with the Mirs for the advancement of British interests and the opening to commerce of the rivers and roads of the province. Three years later the Mirs allowed Colonel Pottinger to survey the sea coast of Sind and the Indus delta. During the Afghán war of 1838 the unwillingness of the Amirs to help the British and their hostility during the passage through Sind of the troops under Sir John Keane led the Bombay Government to despatch a force to be stationed in Sind. As the Baluchis opposed their landing, the British found it necessary to occupy the fort of Karáchi. In 1839 the Mirs of Haidarábád and Khairpur entered into a treaty to pay rupees twenty-three lákhs to Sháh Shujá of Afghánistán in commutation of the Afghán claim for arrears of tribute: to admit the establishment and pay part of the expenses of a British force in Sind; and to abolish all tolls upon trading boats on the Indus. Under the terms of this engagement a British force took possession of the fort of Bakkar. On the death in 1841, of the senior Amir Nur Muhammad Khán, the government of Sind passed to his two sons conjointly with their uncle Nasir Khán. In 1842 owing to the Mirs' delay in paying the tribute, Sir Charles Napier was sent to Sind. He called on the Mirs to subscribe to a treaty under which the Mirs were to cede to the British the towns of Karáchi, Thatha, Sakkar, Bakkar, and Rohri. Though the Mirs with some unwillingness signed this treaty the Baluchis in their army were not prepared to submit to this virtual renunciation of authority. They attacked the Residency and Major Outram, the British Resident, had to retreat to a small steamer in the Indus, and join the forces with Sir Charles Napier. Then (17th February 1843) took place one of the most brilliant feats of British arms in India; the battle of Meeanee in which three thousand British troops defeated twenty thousand Baluchis. After a supremacy of fifty-three years the power of the Tálpurs in Sind was crushed, and the Mirs of Haidarábád and Khairpur gave themselves up as prisoners of war. In March 1843 Sir Charles Napier who was appointed the first Governor of Sind punished and dispersed the defeated Sind army at Dáho. British troops occupied Mirpur Khás and Umarkot, and the Mirs were removed, first to Bombay and then to Poona and Calcutta. They were finally allowed to return to Haidarábád in the enjoyment of lands and of a yearly pension of 3¾ lákhs of rupees. Under Sir Bartle Frere (1851-1859) as Commissioner, Sind passed peacefully through the troubled years of the Mutinies. During the last thirty-five years the establishment of the Indus steam flotilla, the opening of railway communication with northern India, and the great improvements to the harbour of Karáchi have resulted in an increase in the body and value of the trade of Sind perhaps unequalled in any other province of India.

GUJARÁT.

Within three years of the death of the Prophet (A.C. 632, H. 15) the far-famed wealth of Gujarát attracted the conquering and propagandist energies of Islám. In the seventeenth or eighteenth year of Flight (A.C. 638), under the Khiláfat of Umar, Uthmán the Thakafi governor of Bahrein, despatched from the Persian gulf a maritime expedition against Thána and Broach. Other expeditions were directed against Sind, but being no better than raids they left no permanent impression. After the death of Umar and the struggles for the Khiláfat between the houses of Háshim and Umayyah the factions that divided Islám for nearly a century prevented the progress of Muslim arms beyond the limits of their first conquests. On the consolidation of Umayyad power under the first Walid (A.C. 705-715), Hajjáj the powerful viceroy of the Iráks, prevailed on the cautious Khalifáh to send an expedition to exact vengeance on the Medh pirates of Debal (Karáchi). A first ineffectual and disastrous attempt was followed by the expedition under Muhammad son of Kásim (A.C. 712), which achieved the conquest of Sind. After his conquest of Sind Muhammad is said to have made peace with the men of Surást probably the south coast of Káthiáwár, whose people are described as Medhs, seafarers, and pirates. After the death of Hajjáj in A.C. 714, and the recall of Muhammad-ibni-Kásim, with the lapse of the Arab possessions in Sind into the hands of local princes, Musalmán supremacy on the coast of Suráshtra seems also to have come to an end. Ten years later, during the Khiláfat of Hishám (A.C. 724-743), Junaid, the Arab governor of Sind, despatched expeditions for the conquest of Mándal near Viramgám, Barás or Broach, Jurz or north Gujarát, Máliba or Málwa as far as Ujjain, and Láta or south Gujarát as far as Navsárí. These were the last Arab invasions of Gujarát under the Umayyads. During the feeble reigns that followed the Musalmáns had to evacuate some of their Indian provinces, till, on the accession (A.C. 756-775) to the Khiláfat of Al-Mansúr, the second ruler of the house of Abbás, a naval expedition was despatched by the governor of Sind to the coast of Barada (perhaps Porebandar) whose capital (apparently Ghumti) was taken after a protracted siege. The occupation of Barada was brief. Disease swept away the greater part of the Arab garrison and the remainder returned to the Persian gulf. It is possible that the name read Barada should be read Balába and that these raids are the same as the naval expedition from Mansúra in Sind mentioned in Hindu accounts preserved by Alberuni (A.C. 1030) as ending in the destruction of Valabhipúra twenty miles north of Bhávnagar, then the chief seat of trade in Gujarát. About fifty years later, during the reign of Al-Mámun the Abbási (A.C. 813-833), Sindán or Sandhán on the coast of Cutch about fifty miles west of Mándvi, was taken by the Arabs under Fazl son of Máhán. From Sandhán Fazl's son and successor proceeded with an armament of sixty vessels to chastise the Medhs and take Mália in north Káthiáwár. The Sandhán family cannot long have remained independent of the Chavdás of Anahilaváda. During the two following centuries, though in the

leading trading towns of Gujarát Musalmán settlements continued to be respected and to a great extent to be civilly independent, no conquest, not even a raid, is recorded. This long period of peace was broken by the famous invasion of Mahmúd the Ghaznavide, which (A.C. 1025) after the capture of Anahilaváḍa ended in the breaking of the idol and temple of Somnáth in south Káthiáwár. Then followed (A.C. 1178) the invasion and the defeat at the hands of the Anahilaváḍa Rája Bhim II. of Shahábuddin Ghori (A.C. 1194), a disaster redeemed within sixteen years by the victory (A.C. 1210) of Aibak, the slave and successor of Shahábuddin, over Bhim, and the sack of Anahilaváḍa Pátan. About eighty years later Ulugh Khán the general of Ala-ud-din Khilji (A.D. 1295 - 1315) conquered Anahilaváḍa and overran Gujarát (A.D. 1297). In the following year (A.D. 1298) the town of Somnáth Pátan was taken and the temple was a second time desecrated. Musalmán rule was effectually established over Gujarát. Soráth became a Musalmán province ruled by a governor whose head-quarters were the town of Somnáth Pátan. In A.C. 1347 Muhammad Tughlak entered Gujarát, subdued the Gohels, and humbled the Rá of Junágaḍh. In A.C. 1390 during the reign of Firuz the successor of Muhammad Tughlak, Zafar Khán the ancestor of the Sultáns of Ahmedábád was appointed viceroy of Gujarát. Musalmán rule henceforth became established in Gujarát and Káthiáwár and lasted more than four and a half centuries until the Marátha overthrow of the Moghal viceroys from Delhi. The advance of the Musalmáns from the eleventh to the thirteenth centuries drove many Parmár Ráthod and Chávda families of Rájputs southwards where they formed principalities in Cutch Káthiáwár and Máhi Kántha. Among these the most important are the Jádejás, who, arriving about the beginning of the fourteenth century, obtained the sovereignty of Cutch, and, in the sixteenth century (A.C. 1535 - 1540), spread their power along the northern shore of Káthiáwár. During this same period (A.C. 1325 - 1400) the Jháloris, now the Diváns of Pálanpur, originally vassals of the Tughlaks, established themselves in temporary independence. Of these four and a half centuries of Musalmán supremacy, the rule of the Sultáns of Gujarát includes a succession of fifteen sovereigns, extending over a term of 170 years (A.C. 1403 - 1573). These 170 years divide themselves into two main periods, a century and a quarter of strong government and growing power and prosperity succeeded by forty-three years of weak rulers and troubled reigns till the conquest of the province by the Emperor Akbar in A.C. 1573. In A.C. 1403 when Muzaffar Sháh threw off the yoke of Delhi he owned but a narrow strip of territory surrounded on the north-west and west by the independent Rája of Sirohi and the nominally tributary Káthi tribes, on the east by the free territories of the Rája of Idar, and on the south by wild and turbulent tribes of Bhils and Kolis. Though during twelve years (A.C. 1390 - 1402) Muzaffar I. did much to establish a kingdom, his power was not consolidated until the reign of his successor Sultán Ahmad I. (A.C. 1412 - 1443) the founder of the city of Ahmedábád. When, under Mahmúd Begada (A.C. 1459 - 1514), the conqueror of Chámpáner and Junágaḍh, the power of the Gujarát Sultáns was at its height, their dominions included all the present collectorates of Gujarát with the Pátán Baroda and Navsári districts of His Highness the Gáikwár. Gujarát supremacy was also acknowledged over part of Jodhpur, Nágor, Jhálor, Sirohi, Cutch, and Somnáth Sorath and Navánagar now in Káthiáwár; Nandurbár now in Khándesh; Mulher (Baglána) now in Násik; Rámnagar or Dharampor now under Surat; and southwards along the coast through Daman and Bassein to Bombay Janjira and Rájápur in Ratnágiri. For a short time under Bahádur Sháh (A.C. 1530 - 1535) the rulers of Málwa were under the Sultáns of Gujarát. According to the Musalmán historians, in its time of prosperity the revenues of Gujarát amounted to a yearly sum of Rs. 11,46,00,000. The size and richness of the buildings of Ahmedábád and the ruins of Champáner bear witness to the wealth and resources of the country. The decline of the power of the Gujarát Sultáns dates from the defeat of Bahádur Sháh by the Moghal emperor Humáyún in A.C. 1530 and the ascendancy of the Portuguese who were established in Diu by A.C. 1530 and 1536 and to whom in A.C. 1560 the district of Daman was ceded by Changiz Khán, one of the powerful nobles of the weak Ahmed II. This loss of superiority at sea and the spread of confusion and misgovernment at home enabled Akbar to convert into a permanent conquest his sudden raid of A.C. 1573. Between 1573 and 1748 sixty viceroys, appointed by the Court of Delhi, ruled Gujarát. At the time of the Moghal conquest of Gujarát (A.D. 1573 - 1600), Ahmedábád, which was made the seat of the viceroy of Gujarát, was a large well-formed and remarkably healthy city, famous for its cunning artisans, rich in the produce of every part of the globe, the handsomest town in Hindustán. In 1612 a company of English merchants were allowed to settle at Surat. Next year thirty-two Englishmen under Mr. Oldworth came from Surat to Ahmedábád, hired a house, and left brokers and servants to gather goods. Four years later Sir Thomas Roe (A.C. 1617) the English Ambassador came to Ahmedábád with the Emperor Jahángir. Within fifty years, in 1664 and again in 1669, Shiváji, the head of the Maráthás, twice in person plundered Surat, and, in 1686, his son Sambháji plundered Broach. In 1734 the Maráthás under Mahádáji Gáikwár took Baroda and Dámaji Gáikwár's capture of Ahmedábád in 1757 made the Maráthás supreme in Gujarát. In 1752 the governor of Broach became independent, while branches of the famous house of the Bábis established themselves at Rádhanpur, Sami, Bálásinor, and Junágaḍh. The independence of Cambay seems to date from 1730, when Mirza Jafar Najamud-dowlah was appointed its governor. About the same time (A.C. 1740), Bhávsingh Desái of Viramgám established the petty state of Pátri, and, about forty-four years later (A.C. 1784), the Peshwa granted the villages of Sachin in Surat to

HISTORY. Modern History. GUJARÁT.

a branch of the Janjira Sidis. Meanwhile the English, strengthened by the Portuguese cession of the island of Bombay in 1662, undaunted by the persecution of the Surat governors, and unaffected by the local struggles between Marátha and Mughal, continued slowly to gather power, till, in 1759, after the decline of Mughal rule and the usurpation of authority by Tegh-Bakhtkhán, they found themselves strong enough to wrest the castle of Surat from the Sidi admiral of the Mughals. In 1772 the British captured Broach from the Nawáb Mázadkhán and the country round that town was ceded to them by Fatehsingh-ráo Gáikwár. In 1775 an English force under Colonel Keatinge arrived at Surat, and, with their ally the Peshwa Raghunath Ráo or Rághoba, advanced to Cambay. In 1776 Rághoba came to Surat and remained at Surat for some time under British protection. In 1779 Colonel Goddard, summoned from Bengal to the help of the Bombay Government in consequence of the disastrous convention of Wadgáon, arrived at Surat and in the following year took Ahmedábád. Lieutenant Welsh freed from the raids of the Maráthás the country south of Surat, ceded to the English by Fatehsingh Gáikwár, and took the forts of Párnera Bagwáda and Indegarh. But under the treaty of Sálbái the territory south of Surat, as well as all north Gujarát territory acquired by the English since 1775, was restored to the Maráthás. To the close of the eighteenth century the districts originally subordinate to Surat remained distributed between the Peshwa and the Gáikwár. In 1800, on the death without heirs of the Nawáb of Surat, whose family since 1759 had held a position of nominal independence, the English assumed undivided control of the city. Two years later (1802) the Peshwa Bájiráo, in consideration of their guaranteeing him against the attacks of Holkar and Sindia, ceded to the British his share of the territories of north and south Gujarát. In the following year (1803), Broach was taken from Sindia, and, under the treaty of Sirji-Anjangáon, was confirmed to the British. In the same year the Gáikwár ceded to the British Kaira, and a little later the districts of Dholka Dhanduka Nadiád and others. In 1802, to save themselves from the encroachments of the Bhávnagar chief and on condition of receiving half of its revenue, the proprietors of Dholera made over their estate to the British. In 1810 a serious insurrection at Mándvi in east Surat, caused by a Muhammadan who claimed to be the Imám Mehdi, was put down by Mr. Crowe the Chief of Surat after a sharp fight between the dragoons and the Mehdi's followers. Between 1809 and 1820 British supremacy was established in Cutch. On the fall of the Peshwa in 1817 paramount power in Káthiáwár and north Gujarát passed to the British. Between 1808 and 1820 Colonel Walker's settlement put an end to the turbulence and lawlessness of the Káthiáwár tribes, and during the same period the measures taken by the paramount power consequent on the conclusion of treaty engagements pacified the internal discord of Pálanpur and stopped Khosa inroads into Rádhanpur. In 1833 the Panch Mahále, which in the middle of the eighteenth century had been seized and annexed by Sindia, were transferred to the British. Since the establishment of British power Gujarát has enjoyed unbroken peace. At Surat, in 1844 a salt riot and in 1848 a weights and measures riot caused considerable local excitement. The period of the 1857 mutinies was one of anxiety. Though in Ahmedábád the enlisting of 2,000 foot and 150 horse from among the dangerous and unemployed proved on the whole a most politic measure, some of the Gujarát Irregular Horse broke into mutiny. The exemplary punishment dealt to the mutineers had a wholesome effect. The Bohra riot of 1857 in Broach, though arising from a local quarrel between the Pársis and the Musalmáns, was the cause of grave anxiety to Government. Rumoured risings among the Rájpipla Bhils and the preachings of a fanatic Syed in Rájpipla increased the anxiety. The timely arrival of the military and the energy and influence of the civil officers allayed the disturbance. The Syed fled and the leaders of the riot were punished. The defeat of Tántia Topi's troops by Colonel Park and General Somerset at Chota Udepur in the Reva Kántha turned from Gujarát the threatened invasion of North Indian mutineers. Order was soon established. Except the Vághir outbreak in west Káthiáwár in 1866, a rising among the Panch Mahál Náikdás in 1868, and the Surat License Tax riot of 5th April 1878, Gujarát has since 1858 enjoyed unbroken peace.

DEKHAN.

The first Musálmán invasion of the Dekhan took place in A.C. 1294 when Aláuddin Khilji, during the reign of his uncle Jaláluddin, Emperor of Delhi, passing south through Berár with 7,000 horse, surprised the Yádava king Rámdev of Devgadh about ten miles west of the modern Daulatábád, and after exacting from him a large tribute, retired through Khándesh to Hindustán. Twelve years later (A.C. 1306) Aláuddin, who had meanwhile ascended the throne of Delhi, sent a second expedition to the Dekhan under his general Malik Kafúr. In this expedition the Musalmán success was complete. The Dekhan was overrun and Rámdev was forced to agree to a yearly tribute which he continued to pay till his death in A.C. 1312. On the death of Rámdev, his son Shankar, trying to throw off the Musalmán yoke, was defeated, and his capital Devgadh taken. Mahárashtra became a part of the Delhi empire, being ruled by a governor from that capital with his seat at Devgadh. Two years later Khándesh and Berár were formed into a separate province. In the following year (A.C. 1316) a revolt headed by Harpáldev, a cousin of the last Devgadh chief, after a success of two years was suppressed in A.C. 1318. Ferishta records in A.C. 1340 an attack of Muhammad Tughlak on Nág Náik a Koli chief who held the strong fort of Kondhána (now Sinhgad) twelve miles south-west of Poona which was reduced after an eight months' siege. In A.C. 1344-45 the Musalmán nobles of Muhammad Tughlak revolted against him and chose one of their number as their king. This was Hasan Ganga the founder of the Báhmani dynasty which lasted about 150 years. The first capital establish-

ed by the Báhmanis was at Gulbarga about 185 miles south-east of Ahmednagar. From Gulbarga in A.C. 1426 Ahmedsháh Báhmani removed his capital to Bidar about 100 miles further east. The Báhmani territories included the Násik and Ahmednagar districts, Khándesh remaining for some time longer under the empire of Delhi. The Rájás of Báglán in north Násik, of Gálna, and of Antur near the Sátmala hills in Khándesh maintained their independence. The Báhmani territories, comprising Cheul in the north Konkan, Junnar in north-west Poona, Daulatábád to the north-west of Haidarábád, and Mhiropatan or Maháráshtra were ruled by a governor whose head-quarters were at Daulatábád. In the year A.C. 1366 a rising at Daulatábád headed by one Bahrám Khán aided by a Yadava and a Rája of Báglán was put down by Muhammad Sháh Báhmani. Four years later (A.C. 1370) the Delhi Emperor (A.C. 1351 - 1388) Firoz Tughlak gave Thálner in north-east and Karunda in south-east Khándesh to Malik Rája Fáruki a Delhi noble of Arab origin who forced the Rája of Báglán to pay tribute. On his death in A.C. 1399 Malik Rája was succeeded by his son Malik Nasir, who (about A.C. 1393) strengthening his position by marrying a daughter of Diláwar Khán the independent ruler of Málwa was the first of his family to adopt the title king of Khándesh. Malik Nasir took the fort of Asirgadh from Asa the Bhil and founded the cities of Burhánpur now the capital of West Berar and of Zeinábád, on the east bank of the Tápti, close to Burhánpur. Its position on one of the highways between north India and the Dekhan made Burhánpur on the west bank of the Tápti the capital of Khándesh and one of the most important cities of the Dekhan. In A.C. 1437 incited by Ahmed I. of Gujarát, Malik Nasir, by an attack on Báhmani territory, brought on himself an invasion by Aláuddin Báhmani. Malik Nasir retired to the hill fort of Laling about twelve miles south of Dhulia, and died before the arrival of the help from Gujarát which forced Aláuddin to raise the siege. Malik Nasir was succeeded by his son Mirán Ádil Khán, who on his assassination in A.C. 1441, was followed by Mubárak Khán, on whose death in 1457 Ádil Khán became king. The reign of this prince (A.C. 1457 - 1503) was one of the most flourishing periods of Khándesh history. In A.C. 1436 the fort of Sholápur was seized by a rebel brother of Aláuddin Báhmani but was soon retaken. After the twelve years (A.C. 1396 - 1408) of the Durga Devi famine, the Báhmanis had to recover the places that had fallen into the hands of the Maráthás. In A.C. 1436 Aláuddin Báhmani sent a force which reduced the forts of Rairi or Ráygad in south Kolába and of Sinhgad twelve miles south-west of Poona. In 1451 the Báhmani general Malik-ut-Tujjár, at the head of a considerable force made Chákan, a village eighteen miles north of Poona, his head-quarters. After taking and garrisoning Junnar, Malik-ut-Tujjár subdued the chief of the Sirke family. In revenge the Sirke chief under pretence of leading Malik into the territories of the Rája of Kelna or Vishálgadh in central Ratnágiri, conducted him into a dense forest where he was attacked and the bulk of his army massacred by the Rája of Kelna. The hill country of the south Konkan was not subdued till (A.C. 1487) Mahmúd Gáwán the minister of the last Báhmani king reduced Kelna and other forts. In A.C. 1457 Aláuddin Báhmani, oppressed with the size of his dominions, divided the territory into four provinces or *tarafs* of which the chief province was entrusted to the charge of the king's nephew. This included a part of Ahmednagar and the country between Junnar, Daulatábád, Bid, and Paithan on the north, and Poona and Cheul on the south. Subsequently, after A.C. 1487, under the distribution carried out by Mahmúd Gáwán, Junnar was made the head-quarters of a province which included Indápur, Wái, the Mándesh, Belgaum, and part of the Konkans. The other Bhima districts were under Bijápur, while Sholápur Gulbarga and Purenda formed a separate province. In this distribution Yúsúf Ádil Khán, afterwards Yúsúf Ádil Sháh, was made governor of Bijápur; Ahmed Sháh the founder of the Ahmednagar or Nizám Sháhi dynasty was sent to Junnar; Dastur Dinár to Gulbarga; and Purenda and Sholápur with eleven districts came under Zeni Khán and Khwájah Jahán. Within a year of this distribution Bahádur Gilání the governor of the country south of the river Várna raised the standard of revolt. He was soon defeated and killed. Then (about A.C. 1488) with the aid of Yúsúf Ádil, Zemuddin Jághirdár of Chákan rose to power. In A.C. 1489, on the murder at Bidar of his father Nizámul-Mulk, Malik Ahmed (Nizám Sháh) threw off allegiance, and, last of all (A.C. 1489), Yúsúf Ádil of Bijápur asserted his independence making himself master of the country as far north as the Bhima. The districts north of the Nira and east of Karmala together with some of the districts of the present Sholápur were assigned to the Nizám Sháhis of Ahmednagar (A.C. 1490 - 1631), while those to the south of the Nira and Bhima were allotted to the Ádil Sháhis (A.C. 1489 - 1686) of Bijápur. At the same time (A.C. 1512) Golkonda, seven miles west of Haidarábád, became the capital of the Kutub Sháhis (A.C. 1512 - 1687), while Amir Barid the minister of the fallen Báhmanis, who still dragged on a palsied rule at Bidar, usurped their throne and founded the short-lived Berid Sháhi dynasty (A.C. 1492 - 1609). About A.C. 1490 Fathulláh a Delhi noble, under the name of Imád Sháh, became the ruler of Ellichpur and part of the Beráris. This little kingdom lasted till A.C. 1574 when it was absorbed into Ahmednagar. For the next century and a half, that is from A.C. 1500 - 1650, the history of the Dekhan is the record of a continual contest between these kingdoms. Sholápur which formed the apple of discord between the two great Dekhan powers Ahmednagar and Bijápur was reduced to little better than a desert. In A.C. 1523 Ismáil Ádil Sháh of Bijápur (A.C. 1510 - 1534) promised Sholápur as his sister's dower to Burhán Nizám Sháh (A.C. 1508 - 1553) of Ahmednagar. Ismail's failure to fulfil his promise was the cause of a war which lasted forty years. During these protracted hostilities Sholápur constantly changed masters till in A.C. 1563, one year before the famous battle of Tálikot forty miles east of Bijápur, when Rám Rája the Hindu ruler of

POLITICAL.
HISTORY.
Modern History.
DEKHAN.

Vijayánagar was defeated by a confederacy of Dekhan Musalmáns, it was given to Bijápur by Husen Nizám Sháh as the portion of his sister Chánd Bibi.

In A.C. 1600, about thirty-five years after the battle of Talikot, began the Mughal invasions of the Dekhan. Ahmednagar fell in 1636, but its riches strength and guardian northern desert enabled Bijápur to withstand the great Emperor Aurangzebe until fifty years later (A.D. 1686-1688). Aurungzebe's ill-advised destruction of the Musalmán kingdoms of the Dekhan fostered the rise of a much more deadly enemy. About A.C. 1645-46 Shahji the Bijápur Marátha Jághirdar of Poona busied himself in founding a half-independent chiefship. His son Shiváji more vigorously carried out his father's scheme. After usurping Poona and building the strong hill forts of Tala Ghosála and Ráygad in the Konkan, of Rájgad three miles south-east of Torna in Bhor territory, and of Pratápgad then owned by the Rája of Jávli in Sátára in the Dekhan, he, in 1657, threw off his allegiance to Bijápur. Not content with flouting the authority of Bijápur Shiváji made incursions into the Mughal territories spreading alarm and ruin from Surat in the north to Barcelor in the south. In June 1674, on Ráygad hill in south Kolába, Shiváji crowned himself an independent ruler. At his death in 1680 he held the country from the Hiranyakáshi river in the south to the Indráyani river north of Poona in the north. The forts between Satára and Panhála twelve miles north-west of Kolhápur marked his eastern boundary; Supa Indápur and Bárámati in the present district of Poona were his ancestral estate; while he held territories in the Konkan Karnátak Násik and Khándesh. In A.C. 1669 Shiváji's son Sámbháji was captured by Aurungzebe and executed. In 1690 the Moghals made Sháhu the son of Sámbhaji prisoner and took Ráygad. About 1697 Zulfikar Khán reduced Ginji in the Karnátak, the place where Ráma Rája the son of Sháhu had taken refuge. Ráma Rája escaped to Sátára and made it his capital. In A.C. 1699, irritated by the depredations of Ráma Rája, Aurangzebe invested and reduced Sátára. In 1708 Sháhu Rája, Sambháji's son, was formally seated on the Sátára throne. In 1710 the fort of Panhála and the city of Kolhápur were taken by Tarábái the elder widow of Rájárám, the second son of Shiváji, and have since remained the capital of the Kolhapur or younger branch of Shivaji's family. In the same year (A.C. 1710) Nizámul-Mulk the Mughal viceroy of Málwa, asserting his independence, occupied the districts of Khándesh Ahmednagar and Násik. But during the next fifty years his son Saláhat Jang had to give up these districts one by one to the Maráthás. In 1714 the Chitpavan or Konkanasth Brahman, Báláji Vishwanath, the Peshwa or chief minister of Sháhu the Rája of the Sátára or elder branch of Shivaji's family rose to importance. In 1715 he induced the Mughal commandant to give up Poona to the Maráthás. In 1718 Báláji, marching to Delhi as an ally of the Saiads who as prime ministers had usurped authority at the Mughal head-quarters, obtained grants of the shares of revenue known as *chouth* and *sardeshmukhi* over the Dekhan, together with the sovereignty of certain districts south of the Bhima, others between Poona and Kolhápur, and outlying groups in the Konkan and Karnátak. In A.C. 1721, on the death of Báláji, his son Bájiráo was made Peshwa. In 1740 Bájiráo, the greatest of the Peshwás, died near the Narbáda. On the death of Sháhu in A.C. 1749 under Bájiráo's son Báláji, the sovereignty of the Dekhan passed from the Sátára Maráthás to the Peshwa. In 1761 at Panipat in the Panjáb the crushing defeat of the flower and strength of the Maráthás by the Afghán Ahmed Sháh Abdali decided the fate of the Marátha empire. The minority of Báláji's son and successor Mádhava Ráo and the quarrels between him and his uncle Raghunáth Ráo, made Sindia and Holkar the two leading Marátha chiefs, independent, and hastened the fall of the Maráthás. The personal character of Mádhava Ráo for a time upheld the confederacy. But his early death in A.C. 1772 and the consequent quarrels for succession, together with the murder of his successor Náráyan Ráo (A.C. 1773) while sealing the fate of the empire facilitated the British conquests. In the first (A.C. 1775) English war with the Maráthás operations were confined to the Konkan and Gujarát and came to an end with the treaty of Purandhar in A.C. 1776. In A.C. 1778 the British efforts against the ministerial party headed by Nána Fadnavis ended in the disaster of Wargáon, when the British army was allowed to retire only on condition of surrendering all their acquisitions since A.C. 1773. This disgraceful convention was disavowed by the Bombay Government and the war was continued. In A.C. 1782 by the treaty of Sálbái, the English possessions in the Konkan except Sálsette were given up. On the installation of Bájiráo as Peshwa in A.C. 1796 Nána Fadnavis was imprisoned and sent as a prisoner to Ahmednagar, which was granted to Sindia in reward for his help in bringing Bájiráo to the throne. In 1797, during a disturbance brought about by the widows of the Peshwa's uncle, Nána was released and restored to his old post of minister which he held till his death in A.C. 1800. In 1801 war broke out between Sindia who had established his head-quarters at Gwálior and Holkár whose capital was Indor both in Central India. Bájiráo Peshwa siding with Sindia was in A.C. 1802 defeated by Holkar in the battle of Poona and fleeing to Bassein put himself under British protection. In accordance with the terms of the treaty (A.C. 1803) concluded at Bassein the British advancing to Poona replaced Bájiráo on the throne before the close of the year. As soon as he felt secure Bájirao, under the malign influence of his favourite Trimbakji Dánglia, began to intrigue with all the Marátha chiefs to overthrow the English. In A.C. 1814, in connection with tribute due to the Peshwa, on obtaining a guarantee from the British Resident, the Gáikwár sent his agent Gangádhar Shástri to Poona. In the following year (A.C. 1815), failing to win the Shástri to his side, the Peshwa permitted Trimbakji Dánglia to have him assassinated at Pandharpur. To avenge their disregarded guarantee, the British Government insisted on Danglia's surrender and imprisoned him in the fort of Thána. But before many months (12th October 1815) Trimbákji effected his escape. During the following year while the British Government was concerting measures for the suppression of the

Pindáris, the Peshwa was secretly preparing for war. Mr. Elphinstone the British Resident at Poona, aware of the Peshwa's intentions, had arranged for the removal of the small British force at Poona into position at Kirkee and for its reinforcement by British troops from Bombay. On the 5th November 1817 at the battle of Kirkee 26,000 Maráthás assailed a British force numbering 2,800 and were decisively repulsed. Poona was occupied and the Peshwa pursued by General Smith. After a long and fruitless chase it was determined to reduce Sátára and the fort surrendered in February 1818. On the 20th February Bájiráo was surprised near Sholápur. The Peshwa escaped, but his general Bápu Gokhle was killed and the Rája of Sátára was captured. Bájiráo fled to Kopargáon in Ahmednagar, and in May 1819, after long wanderings, surrendered to Sir John Malcolm at Dholkot near Asirgad. The territories of the Peshwa were rapidly brought under British authority. In 1818 Partápsing the son and heir of Bhonsle was formally installed as Rája of Sátára. Meanwhile a force under General Munro, marching from Dhárwár, occupied the forts on the way and took Sholápur by storm on the 13th April 1818. In the west, Ráygad, the old capital of Shiváji, surrendered on the 7th May, and, during the same month, Chávan, Jivdan, Hadsar, Náráyangad, and other leading north Poona forts were reduced by Major Eldridge. A tract of country was reserved for the young titular Rája of Sátára who was placed under the management of a British officer, Captain Grant Duff the author of the History of the Maráthás. In 1819, shortly after the conquest of Sátára a Bráhman conspiracy for the expulsion of the English was discovered and promptly punished. The neighbouring Jághirdárs were dealt with according to their standing and behaviour to the British Government. The lands of the old Marátha nobles or *mánkaris*, the Nimbalkars Dafles and Ghorpades, the Pant Sachiv, the Pritinidhi, and the Rája of Akalkot were restored to them intact. The Patvardhans and other chiefs who had risen under the Peshwas, even the Rástias and Vinchurkars who had to the last followed their master's fortunes were confirmed in their possessions. In 1822 the Sátára territories were formally handed to the Rája. As he persisted in intriguing against the British he was deposed in 1839, and his brother Sháhji put on the throne. In 1848 on Sháhji's death without male issue, Sátára was resumed by the British Government. During the 1857 mutinies the dissatisfaction of the classes impoverished by the British resumption of Sátára, the excitement at Poona over the doings of the infamous Nána Sáheb the adopted son of the last Peshwa Bajiráo, and the mutiny of a regiment at Kolhápur, caused great uneasiness. In spite of these elements of excitement peace was maintained. On the other hand in the northern Dekhan, the Ahmednagar Bhils excited by the disturbances in Northern India, rose under Bhágoji Náik and in a skirmish killed Captain Henry the Superintendent of the local police. Risings in Khándesh and in the north and west of Aurangábád in the Nizám's territories were not put down till November 1859.

KARNÁTAK.

Rámchandra or Rámdev, the ninth Yádava king of Devgiri in the north Dekhan, with the imperial title of Chakravarti, was supreme ruler of the Dekhan Konkan and Karnátak, when, in A.C. 1294, Aláud-din the nephew, and afterwards the successor, of Jalálud-din, the first Khilji emperor of Delhi, led a Musalmán army into southern India. Surprising Rámchandra at Devgiri, Aláud-din took the city and forced him to pay tribute. Between A.C. 1295 and 1306 the Yádavas seem to have continued the overlords of the south. In 1306 Rámchandra's irregularity in paying the Delhi tribute drew upon him a second Musalmán invasion under Káfur Háyár Divan, the general of Aláud-din Khilji. This time a great part of the Marátha country was subdued. In the reign of Shankar, the son of Rámdev (1310), who was ill-affected towards the Musalmáns, a third Musalmán army under Káfur and Khwájáh Háji entered the Dekhan, penetrated to Dvár Samudra or Halebid, the Hoysála capital in west Mysore, ravaged the kingdom, took prisoner king Ballála III. (A.C. 1290-1310) and plundered his capital Dvár Samudra. In A.C. 1312, on Shankar withholding tribute, Malik Káfur for the fourth time came to the Dekhan, killed Shankar, and laid waste Mahárashtra and the Karnátak. He made Devgiri his seat and realized from it the tribute of Telingána and Karnátak. In spite of this defeat, shortly after Káfur's return to Delhi, Harpál reconquered the Devgiri territories and held them, till in 1318, Mubárak Khilji invaded the Dekhan and flayed Harpál alive. In A.C. 1327 Muhammad Tughlak subdued the Karnátak even to the shores of the sea of Ummán. One of the noblemen appointed by him to rule the conquered territories was stationed at Hukeri and another at Ráybág, both near Belgaum. In A.C. 1338 Muhammad Tughlak moved his capital from the hill fort of Devgiri about ten miles east to a site in a broad well-watered plain which he named Daulatábád, the City of Wealth. In the hope of making his new capital the chief city in India Muhammad Tughlak twice attempted to bring south the population of Delhi. But the attempt failed and caused much suffering and disaffection.

Between 1328 and 1335 arose a fresh Hindu kingdom with its capital at Vijayanagar or Hampe about thirty-six miles north-west of Bellári. By the middle of the fourteenth century Vijayanagar ruled a great part of the country south of the Ghátprabha including the North Kánara coast, while the country north of this line, including Goa on the coast and Athni and Chikodi inland, remained in Musalmán hands. In A.C. 1347 the successful revolt of Muhammad Tughlak's Dekhan nobles ended in Hasan Ganga founding the Báhmani kingdom. Hasan removed the capital from Daulatábád to Gulbargah, midway between Bijápur and Haidarábád. From a very early period, when they had established themselves in the districts commanded by Ráichur and Mudgal in the Nizám's country about eighty miles east of the Belgaum frontier, the Báhmani kings directed their efforts against Vijayanagar.

HISTORY. Modern History. KARNÁTAK.

After the capture of the strong fort of Adoni about forty miles north-east of Bellári they entered the Bombay Karnátak or Southern Marátha Country from the south-east. On the coast the Báhmanis were less successful losing Goa to the Vijayanagar king in A.C. 1370 by whom it was held for nearly a century. The capture of Baukápur by Firuz Sháh Báhmani in A.C. 1406 placed the south of the modern collectorate of Dhárwár at his mercy and fifty years later Navalgund became a Báhmani possession. In the reign of Muhammad Sháh II., Mahmúd Gáwán, who had distinguished himself during the reigns of Aláud-din and Humáyun Báhmani, after a brilliant campaign in Kolhápur and Vishálgadh, attacked the coast possessions of the Rája of Vijayanagar and took Goa in 1470 and Belgaum two years later. The capture of Belgaum and the conquest of its dependencies brought the whole of the inland Bombay Karnátak under Muhammadan rule and crushed the power of the Vijayanagar king. These Báhmani successes either did not include or were transient in north Kánara. Local inscriptions, Portuguese records, and the accounts of European travellers, show that Vira Narsingh (A.D. 1487 - 1508) held the greater part of the district. In 1478 Mahmúd Gáwán divided the ill-distributed territories of the Báhmanis into eight *taraf's* or provinces, but within three years Mahmúd's unjust execution precipitated the fall of Báhmani power. Between A.C. 1482 and 1489 the governors of several of the eight provinces revolted and formed separate kingdoms, of which the A'dil Sháhi kingdom of Bijápur (A.C. 1489 - 1586), the Nizám Sháhi kingdom of Ahmednagar (A.C. 1490 - 1636), and the Kutub Sháhi kingdom of Golkonda (A.C. 1512 - 1687) were the chief. Yúsúf A'dil Khán the founder of the Bijápur kingdom is said to have been the son of the Turkish Sultán Murád (Amurath II.) (A.C. 1421 - 1451) who was sold to slavery to save his life from the jealousy of his brother Sultán Muhammad II. (A.C. 1452 - 1481) the conqueror of Constantinople. Under Mahmúd Gáwán the talents and high courage of Yúsúf A'dil were liberally rewarded until about A.C. 1483 he was made governor of Bijápur on the Vijayanagar frontier about 160 miles south-west of Golkonda. Within twenty years the kingdom founded by Yúsúf extended from the Nira on the north to the Tungabhadra on the south and from the sea on the west to the Bhima and Krishna on the east. Later (A.C. 1637) the A'dil Sháhis spread their power as far south as the Madras Karnátak and south-east as far as the Bay of Bengal. The Bijápur kings were one of the first powers to come in contact with the European nation which was destined to play so prominent a part in the history of western India. On the west coast, from A.C. 1498 when under Vasco-da-Gama they landed at Calicut till A.C. 1510 when under Dalbuquerque they ousted Bijápur from Goa, the Portuguese became the allies of Vijayanagar against the A'dil Sháhis, an arrangement which left Vijayanagar the overlord of Kánara until after the middle of the sixteenth century. The rich and pleasing town and district of Belgaum, which under the Báhmanis formed the estate of their faithful and unfortunate minister Mahmúd Gáwán, was under the A'dil Sháhis held in fief (A.C. 1511 - 1549) by the Persian Turk Assad Khán, who for thirty-eight years was the mainstay of Bijápur power and whose worshipful spirit is still believed to guard his favourite Belgaum from the demon cholera. In 1558 Rám Rája of Vijayanagar, misled by a recent success against Ahmednagar, overrated his power and without pretext seized part of east Belgaum. This aggression forced Bijápur to join the other Musalmán powers of the Dekhan in a league against Rám Rája. The confederate armies including the troops of Bijápur Ahmednagar Golkonda and Bidar defeated Rám Rája on the bank of the Krishna about eighteen miles south of Tálikoti in the Muddebihál sub-division of Bijápur on the 25th of January 1565. Though the jealousy of the confederates prevented any of them annexing the territories of Vijayanagar, the bulk of the country practically passed under Bijápur as overlords of Patil Vitta Gauda of Auradi, the ancestor of the present Desái of Sarsingi. Bijápur power passed so far west as to make tributary the chief of Sonda in central inland Kánara. On the coast the Portuguese had a fort at Honávar. Over the rest of Kánara, till the close of the sixteenth century, the local Hindu rulers continued to acknowledge the shadow of authority that clung to the representatives of the Vijayanagar kings who ruled from Anegundi. From the beginning of the seventeenth century Bijápur supremacy was established and for about seventy years continued to be acknowledged by the Sonda and Bednor chiefs.

In the north Dekhan, after the fall of Ahmednagar in 1600 the southward progress of the Mughal arms was checked by the talents of Malik Ambar, the Ahmednagar minister. In 1631, five years after the death of Malik Ambar, A'saf Khán the Mughal unsuccessfully laid siege to Bijápur. The weakness of the local Musalmán authorities proved the opportunity for the rise of the warlike west Dekhan Hindus who for more than two hundred years had remained in enforced subjection. The originator of this Hindu movement was the Marátha Sháhji Bhosle, the holder or Jághirdár of Poona. In 1635 the Emperor Sháh Jehán (A.C. 1627 - 1657) sent an ambassador to Bijápur to demand the expulsion of Sháhji, then the Bijápur governor of the western Dekhan. The refusal of Muhammad A'dil Sháh to agree to this demand brought on a second Mughal invasion of Bijápur. In 1637 Sháhji entered the service of Bijápur and extended the limits of that kingdom to the Bay of Bengal. While the father was engaged in spreading Bijápur power to the east and south-east, his son, the great Shiváji, began to lay the foundations of his future kingdom by appropriating many Bijápur forts in the west Dekhan districts of Poona and Sátára. Persuaded that Shiváji was carrying out his father's instructions the Bijápur government ordered the Jághirdár of Mudhol, Báji Ghorpade, to seize Sháhji and send him to the capital where he was kept in close confinement. Through the influence of Sháh Jehán, Shiváji succeeded in getting his father released and some years later in obedience to the dying injunctions of his father he killed the Jághirdár of Mudhol. Harassed

on one side by Shiváji and pressed on the other by the overwhelming power of Aurangzebe, after a siege of nearly twelve months, Bijápur fell on the 16th October 1686. Shortly before the fall of Bijápur Abdul Karim Khán, the founder of the family of the present Nawáb of Savanur, rose to importance. An ancestor of Abdul Karim Khán entered India with the great Timúr (A.C. 1398) as an Afghán soldier of fortune. About A.C. 1530 Bahlul Khán the founder of the Dekhan family entered the service of Ahmednagar and about A.C. 1600 from Ahmednagar passed under Muhammad A'dil Sháh of Bijápur. His grandson Abdul Karim married a daughter of the Jághirdár of Adoni about forty miles north-east of Bellári and received as his wife's portion the fort of Bágalkot about fifteen miles east of Kaládgi. Abdul Karim distinguished himself in the service of Ali A'dil Sháh (A.C. 1557-1580) by a successful repulse of the Mughals from Bijápur. In 1686 on the fall of Bijápur Abdul Rauf Khán entered the Mughal service receiving an assignment of twenty-two village groups in Bankápur Belgaum and Torgal about forty-eight miles east of Belgaum, of which territory he established the new town of Savanur about forty miles south-east of Dhárwár as capital. On the annexation of Bijápur to the Mughal empire the new possessions except Kánara were governed by two Mughal officers one with his head-quarters at Bijápur, the other at Bankápur about forty miles south of Dhárwár. Even in Kánara Mughal supremacy was at once admitted and tribute paid by the chiefs of Sonda and Bednor. After Aurangzebe's death in 1707 on the release of Sháhu the grandson of Shiváji from his confinement in Delhi, the Southern Marátha Country was partly in the hands of the Rája of Kolhápur and partly under the control of the Nawáb of Savanur. In 1719 Sháhu obtained from Delhi the shares of the revenue known as *chauth* and *sir deshmukhi* of the six *subhas* of the Dekhan, and, in addition, the sovereignty or *swaráj* of a number of districts extending from Poona to the south of the Tungabhadra, including the greater portion of the dominions of the extinct kingdom of Bijápur. The tract known as the Southern Marátha Country, that is the land between the Krishna and the Tungabhadra, was placed under Fateh Sing Bhonsle and in 1730 was divided between the Rájas of Sátára and Kolhápur. The Nizám shared with the Maráthás the revenue of such part of the country as had not been included in the Sátára *swaráj*. As viceroy of the Dekhan he interfered in the affairs of the Bijápur Karnátak and is said to have taken and retained for ten years the fort of Belgaum after which it passed to the Savanur Nawáb. In 1760 Nizám Ali of Haidarábád ceded Bijápur to the Peshwa, who, with the exception of Kolhápur, became master of the whole Southern Marátha Country. In 1761 to check the power of Kolhápur Báláji Peshwa granted a Bráhman named Govind Hari Patvardhan the fort of Miraj together with the Patvardhan Jághir or estates including the present states of Sángli Miraj Kurundvád and Jamkhandi and several estates now in the British districts of Sátára Belgaum and Dhárwár.

In 1759 the famous Mayor of the Mysore palace Haidar Náik, attacking the Maráthás, seized the country south of the Tungabhadra. In 1763 he overran Kánara wresting it from the two nearly independent local chiefs of Sonda and Bednor. About the same time Haidar's general Fazlulláhkhán took Dhárwár and occupied a large tract to its north. These territories were for a short time retaken by Peshwa Mahádevráo. On Mahádevráo's death in 1772, followed by the assassination of his brother Náráyanráo, Haidar recovered the districts south of the Tungabhadra, and, agreeing to support Raghunáthráo in his claims to the Peshwaship, was continued in possession of the sea territories till his death on the 20th December 1782. Four years passed before the Poona minister Nána Fadnavis succeeded in obtaining the help of the Nizám against Haidar's son and successor the great Tipu Sultán (A.C. 1782-1799). This first alliance failed in its object of dislodging Tipu from the places taken by his father. In 1789 a second offensive alliance against Tipu was concluded between the Maráthás the Nizám and the English. The fort of Dhárwár, besieged by the English and Maráthás, after a long resistance, capitulared on the 4th April 1790. The Nizám's troops were equally successful, so that shortly after the whole country was taken from Tipu. In 1799 on the close of the fourth Mysore war and the fall of Seringápatam Kánara came under the British. In 1800 (10th September) by his victory at Konegal in the Nizám's territories over Dhundia Wágh, one of Tipu's soldiers, whose success as a freebooter had gathered round him so considerable a body of adherents that he was able to style himself King of the Two Worlds, Major-General Wellesley, afterwards Duke of Wellington, cleared the exhausted country of its last element of disturbance. In a letter dated April 1803 General Wellesley describes the Southern Marátha Country as a scene of continued contest for power and plunder between the Patvardhans and Gokhles; the countries bordering on the Tungabhadra Wardha and Malprabha as devastated by struggles between the Patvardhans and the Rája of Kolhápur; and those bordering on the Ghátprabha and Krishna as ruined by the rivalry of Bápuji Sindia the Killedár of Dhárwár and the Rája of Kittur, of Gokhle and the Rája of Kittur, and of Gokhle and Bápuji Sindia. This letter was written while General Wellesley was on his march north to Poona to aid the Peshwa Báláji Bájiráo, who, by the treaty of Bassein (1803), had lately placed himself under British protection in his contest with his overpowerful nobles Sindia and Holkar. Though the remarkable success of the British under General Wellesley established the Peshwa's undisputed ascendancy, Bájiráo longed to be rid of his protectors. His intrigues were so fully developed that, in 1817, to put an end to his power to injure, Bájiráo was forced to yield the districts of Dhárwár and Kushgal together with those south of the Wardha. Shortly after, on war breaking out between the British and the Peshwa, Colonel, afterwards Sir Thomas, Munro at the head of a small force started from Dharwár, took the strong places near it, and marching north-east, taking Bádámi and Bágalkot, advanced to Gokák and reached Belgaum in March 1818. Belgaum fort fell on the 11th

HISTORY. Modern History. KARNÁTAK.

April. And shortly after Munro advanced to Bijápur taking and storming all the fortified places on his line of march. The Peshwa's troops fled before him and took refuge in the fort of Sholápur, the capture of which, on the 14th May 1818, fittingly closed Sir Thomas Munro's most successful campaign.

Since they have passed into the hands of the English the peace of the Southern Marátha districts and of Kánara has been disturbed by more than one rising, while forfeitures caused by these disturbances and by the misrule of estate-holders have led to large accessions to Government territory in the Bombay Karnátak. In 1824 a rising in which Mr. Thackeray, the principal Collector of Dhárwár, was killed, was caused in Kittur by the Kárbhári of the deceased Desái forging a letter of adoption. The Kittur territories thus lapsed to the British. In 1827, for turbulence and disregard of British rights, Báwa Sáheb the Chief of Kolhápur was deprived of the villages of Chikodi and Manoli. In 1829 a second and more widespread rising took place in Kittur caused by a discontented village watchman who four months later was captured and hanged. In 1831, as a punishment for his attempt to introduce a spurious child, the territories of the Nipáni chief were declared liable to lapse after his death. In 1840, about a year after the death of the Nipáni chief and the lapse of his estate, one of his widows induced his brother to seize the chief's adopted son and with the aid of 300 Arabs to take possession of Nipáni fort. The insurrection was quelled in 1841 and the fort dismantled. The years 1844 and 1845 are memorable for serious risings in Kolhápur Sávantvádi and Belgaum. In October 1843 the reforms of the Kolhápur minister appointed by the British alarming the Samangad garrison the men revolted. In October the Budhargad garrison plundered the Chikodi division and robbed the Mámlatdár's treasury. In a short time the rising being joined by Phond Savant and the son of the Sir Desái of Sávantvádi grew formidable. A conspiracy was organized to seize the forts of Dhárwár and Belgaum, and, notwithstanding precautions, two or three hundred of the insurgents made their way across the Belgaum frontier and attacked and plundered the customs stations at Párvád and Kukumbi. In 1845 Colonel, afterwards Sir James, Outram scattered the rebels, some of whom with Phond Savant and his sons took refuge in Goa, where the Portuguese Government, professing to regard them as political refugees, refused to surrender them. By March 1845 the country was reported quiet. During the 1857 mutinies the eldest sons of Phond Savant, Nána Bába and Hanumanta, who were not included in the amnesty but remained under watch at Goa, took up a strong position on the Kánara border and tried to stir disturbances along the forest frontier from Sávantvádi to Kánara. Their position was attacked but the mutineers escaped. In December 1859 a gang which for nearly two years had maintained itself in the forests of Kánara and Bidi was captured by Lieutenant Giertzen. In Belgaum a munshi, secretly a disciple of a Wáhábi Maulavi who lived at Poona, was detected by Colonel Lester organizing a widespread conspiracy. He with some of his followers were tried, found guilty, and executed. The Bráhman chief of Nárgund in Dhárwár, who had revolted against the British Government and who in May 1858 surprised the Political Agent Mr. Manson while asleep in the village of Suriban and cutting off his head had it fastened over the gate of Nárgund fort, was captured by Lieutenant-Colonel G. Malcolm, and, after trial at Belgaum, was hanged at Hay Stack Hill. Since this last outbreak of the spirit of mutiny peace has remained unbroken.

GOA.

The history of Goa has been traced till its capture from Yúsúf Ádil Sháh of Bijápur by the great Albuquerque on the 17th February A.C. 1510. After sixty years of peace and prosperous commerce, during which the wealth of the city was wonderfully increased and its fortifications were greatly strengthened, in 1670, its small garrison triumphantly withstood a ten-months' siege by Ali Ádil Sháh and a Bijápur force of 100,000 men. During the first half of the seventeenth century the chief opponents of the Portuguese were the Dutch, who, in 1603 and again in 1639, blockaded Goa. In 1683, Goa, now much decayed in wealth and in power, was nearly taken by Sambháji, who plundered up to the gates of the city. Before the middle of the eighteenth century the progress of the Maráthás, which was fatal to the Portuguese in Thána Bassein and Cheul (1740), also threatened Goa. At Goa the issue was different. The arrival of a European force of 12,000 men secured the defeat and retreat of the Maráthás and their allies the Bhonslas of Sávantvádi. The second half of the eighteenth century was disturbed by frequent hostilities with Sávantvadi, with results on the whole favourable to the Portuguese. Between 1794 and 1815 the guarding of Goa and the garrisoning of its two sea-ports formed part of the protection afforded by the English to Portugal against the aggressions of the French. Since 1815, except in 1845 the threatened rupture with the Government of Bombay in consequence of the shelter afforded to the Sávantvádi rebels, the chief disturbances have been internal dissensions, a revolution in 1821, a popular outbreak in 1835, the insurrection and disbanding of the native army in 1871, and the electioneering brawl of 22nd September 1890. The British peace enables the Portuguese to govern Goa with a military force of 313 Portuguese soldiers.

KONKAN.

The first mention of the Konkan in Musalmán history is in connection with the expedition of the Arab general Mughaira, who, in A.C. 638 (H. 17), was despatched to Thána by Othmán Tha Kafi, governor of Bahrein, under the Khalifáh Oman. No further mention has been traced till the reference of the merchant-traveller Suleimán (A.C. 851) to the province as Komkam, the country of the Balhará, that is the Ráshṭrakúṭás of Málkhet about sixty miles south-east of Sholápur. About sixty years later the Arab traveller and historian Al-Masúdi (A.C. 915) calls the country Kamkar and describes it as part of the kingdom of the Balharás, open on one side to the attacks of the king of Juzr (Gujarát). Nearly a

century later the great Arab writer Alberuni (A.C. 970-1039) states that the capital of the Konkan was Thána, which he places 25 farzakhs, that is about a hundred miles, from Mahrátadesha. Alberuni notices that in the forests of the Konkan named the Dáng lives the Sharva a fierce animal with four miniature feet on its back, having a small trunk and two large horns strong enough to cut an elephant in twain. Early in the twelfth century, according to Al-Idrisi, Thána, a pretty town on a great gulf frequented by many vessels, was a place of considerable trade. Besides Thána the Arab travellers of the ninth tenth and eleventh centuries mention as great centres of trade, the coast towns of Sindan (Sanján) about 100 miles north of Bombay, of Subára (Sopára) about fifty miles north of Bombay, and of Seymur (Cheul) about thirty miles south of Bombay. At the time of his visit, about A.C. 915, Al-Masúdi notices that Cheul or Seymur contained a large and flourishing Musalmán population, partly foreigners from Siráf and other cities of the Persian gulf, Basráh, and Baghdád, partly people born in Cheul of Hindu mothers. The chief ports with which the Thána coast was connected were Kulám (Quilon) and Calicut in Malabár; Broach Cambay and Somnath in Gujarát; Dibal in Sind; Obollah, Siráf, Kis, and Ormuz in the Persian gulf; Kalhat, Dufár, Shehr, and Aden on the Arabian coast; Sokotra at the mouth of the Red Sea; Jidda within the Red Sea; Zaila, Makdashu, Mombáza, and Quilon on the African coast; Kalah in the Malay peninsula, and Jáva Malacca and China. The chief articles of trade at the Konkan ports were Konkan rice sent to the Arabian and African ports, cocoanuts mangoes lemons betelnuts and leaves sent to Sind and the Persian and Arabian coasts, and salt sent inland to the Dekhan. Dates received from Shehr and sent inland, together with Thána honey and Persian and Arabian wine; spices of all sorts imported from Jává and Ceylon in Chinese ships from the Malabár coast; cotton either raw or woven brought from Khándesh and the Dekhan, and sent to Ethiopia; cotton cloth sent to Ceylon and beautiful fabrics to Calicut Persia and Arabia. Laced shoes from Sopára and leather went to Arabia, pearls from near Sopára and from Travancor, and emeralds from Sanján. Among the imports were coral and ivory brought from the Red Sea and the African coast, and sent to the Persian gulf. Drugs and perfumes, tools, and horse gear, and articles used as money, from the cowry to the *dinár*, gold-dust and gold silver steel copper and lead timber and bamboos formed the staple articles of Konkan trade. Towards the close of the thirteenth century the scare caused among the Dekhan Hindu rulers by the Musalmán cavalry created so great a demand that no less than ten thousand horses a year are said to have been brought to the Konkan ports. A traffic in men women eunuchs and boys was carried on by the Jews through the Persian gulf. The merchants who carried on the Konkan trade were local and Gujarát Hindus and Musalmans, Arabs Persians Jews Europeans and perhaps a chance Chinaman. As noticed by the Arab writers of the ninth and tenth centuries the language of the Konkan coast was Lárwi (or Gujaráti) and this still is the trade language of Bombay. The Pársis, who, soon after the Arabs, had arrived and settled at Sanján in the north Konkan, by the beginning of the tenth century had risen to wealth and spread along the coast building fire-temples. Though as already noted Al-Masúdi (A.C. 915) makes the whole country of Lár from Cheul to Cambay subject to the Balhará of Málkhet, he notices that the local governor of Lár was Jhánja who has been identified with Jhánja the fifth of the Siláhára rulers of the Konkan. Between the overthrow of Málkhet (A.C. 973) and the establishment of the overlordship of Gujarát (A.C. 1151) the Siláhára rulers of the north Konkan claimed independence and for a part of this time made Thána their capital. Al-Idrisi's (A.C. 1135) mention of Thána (Bána), contains no reference to any connection with Gujarát. This independence in the eleventh and early twelfth centuries is borne out by the subsequent invasion of the Solanki king Kumárpál (A.C. 1143-1174) and the defeat of Mallik-Árjun Siláhára the bearer of the proud title Father of Kings. The Gujarát supremacy that followed Kumárpál's invasion seems to have been shortlived as in 1151 the Siláhára ruler of Kolhápur is said to have replaced the dethroned Konkan king. Though during at least the latter part of the thirteenth century the overlordship of the north Konkan passed to the Devgiri Yádavas under viceroys whose head-quarters were at Karnála and Bassein, the Anahilaváda kings probably kept a hold on certain places along the coast. During the struggle which ended in the establishment of Musalmán supremacy in Gujarát this overlordship ceased. About 1290 the Venetian traveller Marco Polo describes the prince of Thána as tributary to no one. Early in the fourteenth century Alp or Ulugh Khán, after firmly establishing the power of his master Alá-ud-din Khilji in Gujarát, passed south as far as Sanján, which after a sturdy resistance by the Hindu chief and his warlike Pársi subjects (A.D. 1312-1318) he conquered. On the fall of Devgiri or Daulatábád in the north Dekhan, the Emperor Mubárak II. (A.C. 1317) ordered his outposts to be extended to the sea and occupied Máhim and Sálsette. According to the French friars Jordanus and Odericus (A.C. 1321-1324) the Turk rulers of Delhi conquered the coast and established a garrison at Thána. The Emperor Mubárak Sháh survives in the legends of some of the Bombay temples as Mumbárákshasa, the demon Mumba, who destroyed temples and dishonoured the Hindu religion, and whose name, coupled according to custom with the *devi* or local influence which shattered his demon power, may be the origin of the change from Mahaamma to Mumbadevi the name-giver of Bombay. Under the rule of Muhammad Tughlak (A.C. 1325-1350), though Musalmán interest in the Konkan declined, their supremacy remained intact. The journey of the Arab traveller Ibn Batuta in 1343 seems to show that the port for Daulatábád had shifted from Thána to Cambay. In agreement with this change the two important Hindu chiefships of Báglán and Jawhár were allowed to be formed between Daulatábád and the coast. In 1341 the Delhi court recognized the Jawhár chief as the lord of twenty-two forts and of a country yielding an annual revenue of Rs. 9,00,000. Though during their early ascendancy the Báhmani dynasty (A.C. 1347-1490) held the whole of the Konkan and part of the Gujarát coast from Navsári in the north to Cheul in the south, after A.C. 1347, when their capital was moved south from Daulatábád to Gulbarga, the Báhmani connection with the north Konkan grew gradually fainter. At the same time, during the early years of the fifteenth century, the rapidly growing power of Muzaffar's dynasty of Ahmedábád Sultans, led to a renewal of the former overlordship of Gujarát throughout at least the coast tracts of the north and central Konkan.

History. Modern History. KONKAN.

In 1429, during the reign of Ahmad I. (A.C. 1413 - 1441), the very successful founder of the new Gujarát capital of Ahmedábád, Máhim was garrisoned apparently as an outpost, and another garrison was stationed at Thána to keep back any advance of the Dekhan troops. Máhim and the whole of the Konkan coast from Navsári southwards was in the hands of Hindu chiefs sufficiently under Musalmán control to secure the southward passage of the Ahmedábád armies. This advance of Gujarát power along the Konkan coast was vigorously contested by the Báhmanis. In 1429 on the death of the Gujárat commandant, Máhim and Sálsette were seized by the Báhmani general. To avenge this encroachment Sultan Ahmad despatched a Gujarát fleet. Thána was recovered and the Báhmani general was forced to retire to Máhim. At Máhim he was again defeated and compelled to fall back on the mainland. Dekhan reinforcements enabled the Báhmani general to make a fresh attack on Thána. His troops were routed and the overlordship of Gujarát was established throughout the coast tracts to the north of Bombay. South of Bombay the Báhmanis maintained their supremacy, holding, under governors of their own, the prosperous ports of Cheul in Kolába and of Dábhol in Ratnágiri, and allowing the inland parts to remain divided among local Hindu chiefs of whom the most important were the lords of Máhuli in Thána, of Rájgad in Kolába, and of Vishálgad in Ratnágiri. In or about 1465 Mahmúd Begada (A.C. 1459 - 1511), the greatest of the line of Ahmedábád sovereigns, strengthened Gujarát power in the north Konkan. In A.C. 1480 on the Báhmanis dividing their territory into eight parts and the establishment of Junnar as one of the provinces, the Dekhan once more came into closer relations with the north Konkan. Five years later, on the decay of Báhmani rule, Bahádur Kháu Giláni, the son of the Musalmán governor of Goa, seized Dábhol and other places in the south Konkan and established himself as lord of Daryabár or the sea coast. In 1493 the two Mahmúds, Mahmúd Báhmani and Mahmúd Begada, agreeing to treat Giláni as a rebel and take joint action against him, the Báhmani troops defeated Giláni in an attempt on Máhim. Giláni was slain and Máhim was restored to Gujarát. In A.D. 1508, when the power of the Sultáns of Gujarát was at its highest, Daman Bassein and Bombay were included within the limits of their dominions. Mahmúd Begada had established a garrison in Nágothna, and among the Konkan places that yielded revenue to Gujarát were Agáshi, Danda near Kelva Máhim, Sopárá, Bassein, Bhiwndi, Bombay, and Panvel. The Italian traveller Varthema (A.D. 1502) places Cheul under Gujarát and the hill forts of Karnála in Panvel and Sánkshi in Pen were held by Gujarát commandants. In 1498 on the arrival of the Portuguese in India the whole coast line from Goa to Bassein had lately passed to the Ádil Sháhi kingdom of Bijápur. In 1511 Bijápur ceded Goa to the Portuguese. In A.C. 1509, Mahmúd Begáda, who hated the Portuguese, attacked and defeated them at Cheul, a disaster which the Portuguese (7th February 1509) redeemed by their destruction of the allied Gujarát Egyptian and Calicut fleets off Diu. Shortly after this reverse the Gujarát governor of Cheul agreed to pay (A.C. 1509) a yearly tribute to the victorious Portuguese, and in 1514 the southern boundary of Gujarát had shrunk from Cheul to Bombay. In 1514 on the completion of the Portuguese fort at Revdanda, two miles to the west of Cheul, the Portuguese fleet dominated Bombay harbour and in 1526 a Portuguese factory was established at Bassein. In A.C. 1528 Sylveira's defeat of the Gujarát general Ali Sháh in Bombay harbour and the Máhim creek, made the lord of Thána, more probably a Hindu chief than a Musalmán governor, tributary to the Portuguese, and, in 1530, after plundering Surat and Ránder, Sylveira destroyed Daman and Agáshi. In 1532, under Nuno da Cunha, the Portuguese took the fort of Bassein by assault and razed its walls, and imposed tribute on Thána and Bándra. In 1533, to win them from their alliance and co-operation with the Mughal Emperor Humáyún who was threatening Gujarát, Sultan Bahádur first ceded Bassein, and, after his defeat by Humáyún, granted the Portuguese their long-cherished wish to build a fort at Diu. Humáyún's sudden withdrawal from Gujarát made this needless concession to the Portuguese hateful to Bahádur. He sent for aid to the Turkish Sultán in Egypt. But before the arrival of the Egyptian fleet, at a boardship meeting with the Portuguese Viceroy, in a scene of treachery and confusion, Bahádur was thrown overboard and drowned. On the arrival of the Turkish fleet, under the well-founded apprehension that if successful at Diu the Turkish Admiral would hold the place for his own master, the Gujarát government withdrew their fleet. The Turkish Admiral attacked Diu with the greatest vigour. But after a siege of two months the heroism of the Portuguese prevailed and on the reported advance of a Portuguese fleet from the south the Turkish Admiral withdrew to Aden. Ten years later (1546) an attempt of Mahmúd III. of Gujarát to recover Diu failed and a two years struggle ended (1548) in a treaty favourable to the Portuguese. In 1560 the Gujarát noble Changizkhán ceded to the Portuguese the belt of coast from Daman to the Vaitarna obtaining in exchange the forts of Párnera and Balsár. In 1583, in his final conquest of Gujarát the Emperor Akbar, after an unsuccessful attempt to win back Bassein and Daman, concluded a treaty favourable to the Portuguese. On the appearance of the Dutch in 1597 Portuguese power began to wane, and in 1614 their signal defeat at the Tapti mouth by the English under Captain Best shattered their naval supremacy.

In 1600, as a consequence of the Mughal capture of Ahmednagar, the south and east Konkan with Kalyán passed to the Moghals. In 1632 Sháhji, Shivaji's father, seized Kalyán together with several Dekhan districts. In 1635 a Moghal officer, sent to recover the Konkan from Sháhji, forced him to take refuge in the hill fort of Mahuli and at last to surrender. In 1636, on his agreeing to pay tribute to the Mughals, the Konkan was made over to Adil Khán of Bijápur. In 1648 Shiváji captured Kalyán and gained several of the leading south Konkan forts, and though, in 1661, the Mughals recovered Kalyán Shiváji succeeded in maintaining a somewhat doubtful control over a considerable part of the province. During the struggles

between Shiváji and the united power of Bijápur and the Janjira Sidis the south Konkan was a scene of constant war. In 1661 the island of Bombay and its dependencies were ceded by the Portuguese to the English as part of the dower of the Infanta Catherine, the Queen of Charles II. To carry out the transfer a force under the Earl of Marlborough left England in March 1662 and reached the mouth of the Tapti by October 1662. On opening communications the English General found that the Portuguese Viceroy held that Bombay had no dependencies and that not even Bombay could be ceded without further formalities. In consequence of this delay the English, who could find no place of settlement except the small unhealthy island of Angediva off the Kárwár coast, lost their admiral and three-fourths of their troops. The Earl of Marlborough returned to England. It was not till February 1665, and even then only after waiving the claim to the dependencies, that the transfer of Bombay to the English was completed. Isolated and impoverished by hostile Portuguese tariffs, Bombay proved so costly a possession that in 1668 King Charles handed it in fee simple to the East India Company. At first under the wise management of Sir George Oxenden (A.C. 1668-1673) and of Gerard Aungier (A.C. 1673-1680) Bombay flourished. In 1687 the ill conceived and badly carried out scheme of Sir John Child to establish Bombay as an independent power brought on the settlement the loss and the disgrace of for several months being besieged, and except the fort, being overrun by the troops of the Sidi admiral of the Mughal. The four following years of plague almost destroyed the Bombay garrison. The constant struggles between Aurangzebe and the Maráthás that wasted the Dekhan (1690-1696), ruined trade and reduced Bombay to the verge of bankruptcy. During the four years ending 1697, to be relieved from the charge of this most miserable and unhealthiest of islands before, like his companions, he passed under the ground, was the refrain of Mr. Waite the Deputy Governor's despatches. The last ten years of the seventeenth century were hardly less grievous to the Portuguese than to the British. Almost more than Bombay, Bassein and Cheul were wasted by the plague. The ruin of the Portuguese power at sea was shown not so much by the swarms of Gujaráti Maráthi and Malabár pirates, as by the unchallenged landing and unpunished pillaging of Bassein and the country round by Arab rovers from the Persian gulf stirred by the outburst of Wáhábi Protestantism to repeat the descents on the Konkan without parallel since the first fervour of Islám more than a thousand years before. In 1680, after the death of Shiváji, inland Ratnágiri suffered by Mughal invasions, and, along the coast, by struggles between the Portuguese the Maráthás and the Sidi of Janjira. In 1698 Kánhoji Angria, succeeding to the command of the Marátha fleet, made Kolába his head-quarters, and, besides of the coast from Sávantvádi to Bombay, became master of several important inland stations.

In the decline of Surat and the other trade centres of Gujarát, the first half of the eighteenth century was a time of steady and rapid progress in Bombay. Unlike Bombay to the Konkan Portuguese the first half of the eighteenth century brought not fresh vigour but growing feebleness. Their trade was gone, their prowess at sea was forgotten, their people were leaving them for Bombay, not as the Viceroy jealous of the Jesuits supposed because of Bombay's indifference to religion, for neither was freedom of conscience new to Bombay nor Jesuits to Bassein and Cheul, but because power and wealth were leaving all other Western Indian ports and centering in Bombay. During the first thirty years of the eighteenth century religious bickerings, land disputes, fishers' quarrels, and a tariff war maintained a constant friction between the English in Bombay and the Portuguese in Sálsette. This irritation against the Portuguese, and, on the other hand, the friendly relations which had all along been maintained with the Maráthás, seem to have gained for the Maráthás the goodwill of the English when in 1737 war broke out between them and the Portuguese. That the Maráthás may have obtained military supplies from Bombay is probable, but that they were helped with information injurious to the Portuguese is unlikely, and that they were aided by English artillerymen is almost certainly an error. The strength and skill shown by the Maráthás in their siege of Thána caused uneasiness in Bombay. The change from the vapouring cowardice and corruption of the last General of the North to the courtesy courage and devotion of Sylveira de Menezes commandant of Bassein aroused sympathy with the hard-pressed Portuguese. So far as was possible without offending the Maráthás the Portuguese were aided with funds and ammunition. The progress of the siege increased English pity and admiration for the defenders. And in May 1737 when Bassein fell, as a tree falls never again to rise, the Viceroy and all who refused to remain under Marátha rule found in Bombay a friendly shelter which was continued to them during the whole term of the following monsoon. On their leaving Bombay funds were provided to meet the arrears of the troops and the wants of the destitute. The difficult negotiations that followed ending in the transfer of Cheul to the Maráthás were conducted by the English solely with a friendly regard to Portuguese interests. During the years that followed the threatening and overbearing attitude of the Maráthás made Bombay regret the disappearance of the Portuguese buffer state of Sálsette.

In 1755-56 the presence of Colonel, afterwards Lord Clive, and of Admiral Sir H. James enabled the Bombay Government to break the power of Angria. His chief forts Suvarndurg and Vijaydurg were taken and in their stead the English obtained from the Peshwa the fort and surrounding villages of Bánkot. In 1761 the crushing disaster of Pánipat and the subsequent death of the Peshwa Báláji Bájiráo freed the English from much of their apprehension in regard to the Maráthás. In 1762 Raghunáthráo, the regent for the Peshwa Mádhavráo, granted the Sidis of Janjira independence. In 1765 the English captured the forts of Málwan and Redi,

making Málwan over to the Rája of Kolhápur and Redi to Khem Sávant, the Desai of Vádi, on his promising (177[illegible]) to pay a sum of two lákhs. In 1774 the English took Sálsette from the Maráthás, including Karanja Elephanta and Hog island, and in 1775 Bassein being first taken and subsequently ceded to the British by Ragunáthráo became a British possession. In the same year under the terms of the treaty of Surat, Bassein was restored, but Sálsette, Karanja, Hog island, and Khánderi were allowed to be retained by the British. In 1780 after the disastrous capitulation at Vadgaon, about thirty miles west of Poona, had in some measure been redeemed by the arrival and successes of Colonel Goddard, Lieutenant Campbell in 1780 seized Kalyán and, during the same year Bassein was taken by Colonel Goddard after an obstinate defence. Two years later (1782) these brilliant successes were rendered nugatory by the restoration under the terms of the treaty of Sálbai of all territory recently acquired by the British, Sálsette excepted. In 1785 war broke out between the Sávants of Sávantvádi to the south of Ratnágiri and the Marátha state of Kolhápur and lasted with varying success for twenty-three years. In 1795 except Málwan the whole of the south coast was in the possession of the Sávants. During the second half of the eighteenth century Bombay continued rapidly to progress. About 1764 the danger of a French invasion enforced the necessity of preparing Bombay to resist the attack of any European, as well as of any local enemy. Great sums were spent not altogether wisely, perhaps not entirely honestly. Fresh engineers underestimated the value of their predecessors' and the cost of their own schemes. Untotalled estimates even untotalled outlays drove the Directors to the severest censure which mellowing during the long sea voyage seems seldom on arrival to have produced either protest or contrition. In spite of errors extravagances and the divided counsels of experts, by 1777 the fortifications were completed, of which both the Company and the people of Bombay had reason to be proud. Docks the finest in the east gave a further value to the harbour. The completion of the great Hornby Vellard redeemed from swamp a large share of the island; the great increase in the English and Chinese demand for cotton enriched Bombay's merchants: in spite of disaster the English had become the paramount military power and at the opening of the nineteenth century the treaty of Bassein made Bombay the political centre of a large section of the present Presidency.

In 1803 by the treaty of Bassein in return for support guaranteed to Bájiráo Peshwa against the Marátha chiefs Sindia and Holkár the British again acquired territory yielding a revenue of Rs. 26,00,000 yearly. But it was not till 1817 that, under the treaty of Poona, consequent on the overthrow of the Peshwa's power at the battle of Kirkee, the British acquired the north Konkan. In 1812 Málwan fort and its dependencies in the south Konkan and Vengurla were made over to the British by Phond Sávant the Desai of Vádi. Early in 1817, some months before the treaty of Poona, the Pindháris swept from the Dekhan to plunder the Konkan, and the Peshwa again breaking with the English, let loose on the Konkan Trimbakji Danglia's hordes of Bhils and Rámoshis. Captain Barrow defeated a portion of the Peshwa's army and completed the English conquest of the north Konkan. Though under the agreement of 1816 the Peshwa undertook to hand over the whole Konkan, the cession of Ratnágiri, the home of the Peshwa's family, was delayed. In November 1817 after the battle of Kirkee, a force under Colonel Kennedy took Savarndurg without difficulty. Early in the ensuing year Colonel Kennedy reduced the forts in the present Dápoli sub-division. The taking of Rámgad, Palgad, Resálgad, and Khed followed. Colonels Potter and Imlack secured the rest of the district and the conquest was completed before the end of the year by the Ratnágiri Deshmukh's surrender of the forts of Ratnágiri Jaygad and Purángad, and Dhulap's cession of Vijaydurg. In 1818 two important prisoners, Chimnaji Appa the Peshwa's brother, and Trimbakji Danglia, were kept, the former at Bassein and the latter at Thána. In 1819 a British force took Vádi as a security for the good behaviour of Durgábai, the regent of Vádi, who had seized the fort of Bharatgad and attached Kolhápur. Since 1818 in the north Konkan the chief local disturbances have been the gang robberies that troubled the district till 1830, a Musalmán and Hindu riot in Bhiwndi in 1837, the arrest and confinement in the Thána jail of Rágho Vishvanáth a relative of Nána who was stirring up the people in 1857, an income tax disturbance in Bassein in 1860, and the 1874 and 1877 gang robberies. In the southern Konkan in 1857 during the mutinies the outbreak at Kolhápur caused apprehension in Ratnágiri but no disturbance occurred to break the peace which in that part of the Konkan has been maintained since 1818.

Form of Administration.

The Government of the Bombay Presidency is formed on the model of the governing body of the old Surat Factory, which was for many years the chief of the settlements of the East India Company in the East. It was composed of a President and eight Councillors, of whom five only were to be constantly resident. The whole body was called the President in Council, and the Factory a Presidency, terms which have spread over India.

The existing Government of Bombay consists of a Governor as President, two ordinary Civil Members, selected from the Covenanted Civil Service, and as a general rule the Commander-in-Chief.

This body forms the Executive Government or Governor in Council of the Presidency, but for legislative purposes the Council is enlarged by the addition of certain official and non-official Members, and is then composed of the Members of the Executive Council, the Advocate General or officer acting in that capacity, and certain additional

members not less than eight or more than twenty in number, nominated by His Excellency the Governor. Of these additional members at least one-half must belong to the non-official community. Their term of office is two years. The privilege of recommending a member for nomination by the Governor to the first Council constituted under the Indian Councils Act of 1892 was given to each of the following Bodies or Associations:—

(1) The Corporation of Bombay.
(2) The Municipal Corporations of the Northern Division.
(3) The District Local Boards of the Southern Division.
(4) The Sardárs of the Deccan.
(5) The Zamindárs of Sind.
(6) The Chamber of Commerce, Bombay.
(7) The Chamber of Commerce, Karáchi.
(8) The Senate of the University of Bombay.

Of this Council also the Governor is President. In his absence the Senior Ordinary Civil Member of Council presides.

With a view to diminish the pressure of business, advantage is taken, in the discharge of the executive and judicial functions, of the special acquirements of the different members of the Government. Thus, for example, the Governor may dispose of the business of the Military, Marine, Ecclesiastical, Public Works, Political (except Judicial appeals) and Educational Departments. The work of the Judicial Department in which is included all questions concerning the City and District Police; that of Judico-Political appeals; and that of the General Department which covers many subjects, the most important being Medical and Municipal, may be allotted to the Member of the Board, ordinarily entitled the Judicial Member: whilst the responsibility for the efficient administration of Revenue, Financial and Railway affairs may be accepted by the Revenue Member. Questions which present no special difficulty are finally disposed of by the member in charge of the Department in which they occur; on more important questions and on questions involving expenditure of any great amount the opinion of a second member is sought, and should there be a difference of opinion or should any case of peculiar difficulty or general public interest arise, the matter is settled according to the balance of opinion either as recorded by the different members or after discussion at a meeting of the Executive Council.

In matters before the Council in their judicial capacity and in the making, repealing, and suspension of the ordinary rules of civil administration, the opinion of the majority is decisive: the powers of each Member being equal and the President having no casting vote. But in any grave political emergency affecting the safety or tranquillity of British rule, the Governor can set aside even the unanimous opinion of his counsellors, and his orders in such case, though he alone is responsible for them, operate as the orders of the entire Council.

All papers connected with public business reach Government through the Secretariat, where they are properly arranged, and submitted to the members in charge of the departments to which they belong, together with all available material for coming to a decision in the shape of former correspondence, acts or resolutions relating to the same or an analogous subject, and also with the recorded opinions of the Secretary or Under Secretary in the departments in question or of both. The strength of the Secretariat is as follows:—for the Revenue, Financial, and General Departments a Secretary and Under Secretary, who are Covenanted Civilians, and an Assistant Secretary who is an Uncovenanted officer; in the Political, Judicial, Legislative, Educational, and Special Departments a Covenanted Secretary and Under Secretary, the latter of whom also officiates as Secretary to the Legislative Council, and two Uncovenanted Assistant Secretaries; in the Military, Marine and Ecclesiastical Departments a Secretary who is a Military officer and an Uncovenanted Assistant Secretary; in the Public Works Department a Secretary and an Under Secretary who are either Royal or Civil Engineers, and an Uncovenanted Assistant Secretary, and in the Railway Department a Secretary and Under Secretary, three Deputy Consulting Engineers, besides the Under Secretary who is also a Deputy Consulting Engineer, all of whom may be Royal or Civil Engineers, and an Uncovenanted Assistant Secretary. The senior of the two Civilian Secretaries to Government is entitled the Chief Secretary.

Political.

The territories under the rule of Native Princes and Chiefs extend over an area of 64,633 square miles, or more than one-third of the entire area of the Presidency. The variety of the relations which, under the terms of the several treaties, subsist between the British Government and the rulers of the different States, and the general superintendence exercised by Government as the Paramount Power, necessitate the presence of an Agent or representative at the principal Courts. The smaller and less important States are either grouped together under the general supervision of a Political Agent, or are looked after by the Collectors of the districts within the local limits of which they may happen to be situated. The position of the Agent varies, roughly speaking, with the importance of the State. In some cases he does little more than give advice and exercise a general surveillance. In other cases Agents are invested with a direct share in the administration; while States, in which the ruler is a minor, are directly managed by Government officers. In connection with the administration of the two last-named classes of States a large amount of judicial work devolves on the Governor in Council, in criminal cases as a Court of Reference and Appeal, and in civil matters as a Court of Appeal. The supervision of all

FORM OF ADMINISTRATION.

the Native States in this Presidency rests with the Government of Bombay, with the exception of that of Baroda, where the Resident Political Officer is an Agent to the Governor General.

icial.

The administration of justice throughout the Regulation Districts of the Presidency is, under the Letters Patent of 1865, entrusted to the High Court. This Court, consisting of a Chief Justice and six Puisne Judges, has both ordinary and extraordinary civil and criminal jurisdiction, and exercises original and appellate functions. In addition, the appellate Judges of the High Court supervise the administration of justice by the different Civil and Criminal Courts of the Regulation Districts. Ordinary original jurisdiction is exercised in matters, both civil and criminal, which arise within the limits of the Town and Island of Bombay. In virtue of its extraordinary jurisdiction the High Court may in civil cases remove and itself try any suit brought in any Court under its superintendence, and may in criminal cases exercise jurisdiction over all persons residing in places within the jurisdiction of any Court subject to the superintendence of the High Court.

In civil matters the High Court is a Court of Appeal—

From the judgment of one Judge of the High Court, or from the judgment of any Division Court, the members of which are equally divided in opinion, and do not amount in number to a majority of the High Court.

From the decisions, except in cases where no appeal lies, of all Civil Courts under its superintendence.

In criminal matters the High Court is, subject to the same limitation, a Court of Appeal from the decisions of all Sessions Courts. It is also a Court of Reference and Revision in cases decided by the Criminal Courts subject to its appellate jurisdiction.

The High Court also exercises the functions of an Insolvency Court, and possesses the civil and criminal jurisdiction of an Admiralty and Vice-Admiralty Court in prize causes and other maritime questions arising in India. It has also been invested with testamentary jurisdiction, and has matrimonial jurisdiction over Christians. One of the Judges of the High Court officiates as Judge of the Pársi Matrimonial Court. Matrimonial decrees by District Courts require confirmation by the High Court.

Sind Sadar Court.

In the Province of Sind the Sadar Court is the highest Court of civil and criminal appeal, and the High Court at Bombay has no jurisdiction in or over the Province except as regards (i) its powers under the Administrator General's Act, 1872, (ii) probates and administrations, (iii) decrees in matrimonial cases and (iv) European British subjects. The District Court of Karáchi is a Colonial Court of Admiralty from which an appeal lies to the Sadar Court and ultimately to Her Majesty in Council.

District Courts.

The administration of civil justice is, in addition to the High Court in the Regulation Districts, and the Court of the Judicial Commissioner in Sind, entrusted to four grades of Courts—those of District and Assistant District Judges and of two classes of officers styled, respectively, First and Second Class Subordinate Judges. There are at present 16 District Judges, one Assistant Judge, F. P., and Joint Sessions Judge, one Joint Judge and Sessions Judge, six Assistant Judges, 15 First Class and 89 Second Class Subordinate Judges. For work under the Dekkhan Agriculturists' Relief Act there are entertained one Special Judge and two Subordinate Judges. The jurisdiction of the different District and Subordinate Civil Courts, as laid down by Act XIV of 1869, is given below. A Subordinate Judge of the Second Class has original jurisdiction in suits of less than Rs. 5,000 in amount or value. He has no appellate powers. The jurisdiction of a Subordinate Judge of the First Class extends to all original suits of a civil nature, except suits in which Government, or any officer of Government in his official capacity, is a party. An officer of this class may be (and some of them are) invested with appellate jurisdiction, and in suits up to Rs. 500 in value with the summary powers of a Small Cause Court Judge. An Assistant Judge may try such original suits of less than Rs. 10,000 in amount or value as the District Judge refers to him for decision. When invested with appellate jurisdiction the powers in appeal of an Assistant Judge are the same as those of a District Judge. The officer who presides over the principal Court of Original Civil Jurisdiction in each district is called the District Judge. He exercises a general control over all Courts within his charge, and refers for decision to the Assistant Judge such suits as he deems proper. He has also to arrange for the guardianship of the persons and the management of the property of minors and lunatics, and he hears and decides a variety of petitions regarding certificates of heirship, certificates to collect debts due to deceased persons, questions under the Land Acquisition Act, suits between Christians for the dissolution of marriage or judicial separation, suits for winding up partnership under the Indian Contract Act, and applications under many other Acts. The Judges of Surat and Poona are Judges of the Pársi Matrimonial Courts in those towns. The Judge of Poona, as Agent for Sardárs in the Deccan, decides, under Regulation XXIX of 1827, cases in which certain gentlemen of high rank are interested. In certain parts of the Presidency, where the burden of judicial work is especially heavy, it has been found necessary to employ the services of an additional Judge. This officer, under the title of Assistant Judge with full powers, has all the powers and jurisdiction of a District Judge in civil-judicial matters, and nearly all the administrative powers. His powers in criminal matters will be noticed below.

FORM OF ADMINISTRATION.

Appellate Jurisdiction.

In cases which do not exceed Rs. 5,000 in amount or value an appeal lies, on both matter of fact and of law, from the decree of an Assistant or Subordinate Judge to the Court of the District Judge. From the decision of the District Judge in appeal, a special appeal lies to the High Court on points of law. The appeal from the decision of a Subordinate or Assistant Judge in cases exceeding Rs. 5,000 in value, and from the decision of the District Judge in all original suits, lies to the High Court. Decisions in appeal of Subordinate or Assistant Judges invested with appellate powers, have the same force, and are subject to the same rules as those of the District Judge. From the decisions of the High Court a further appeal lies as of course to Her Majesty in Council only when the property in dispute is of the amount or value of Rs. 10,000 or upwards, but appeals are also allowed in cases of special importance or involving grave questions of law.

Small Cause Courts.

For the more easy recovery of small debts and demands, Courts, invested with summary powers, have been established in the City of Bombay, and in six towns in the mofussil, viz., Ahmedábád, Nadiád, Poona, Surat, Broach and Karáchi. The Judges of the Mofussil Small Cause Courts have jurisdiction in money suits, within the towns where the Courts are situated, up to Rs. 500 in value, and their decisions are final, save in so far as they are subject to reference of points of law to the High Court, or to the supervision of the High Court in its extraordinary jurisdiction. The Registrars of the Small Cause Courts at Poona and Nadiád have also power to decide cases up to the value of Rs. 20. The Presidency Small Cause Court has cognizance in suits not exceeding Rs. 2,000 in value, arising within the Island of Bombay.

Scheduled Districts.

The Scheduled Districts are those which "have never been brought within, or have from time to time been removed from, the operation of the general Acts and Regulations and the jurisdiction of the ordinary Courts of Judicature," and consist, so far as this Presidency is concerned, of the Province of Sind, Aden and its dependencies, and the Mewási Chiefs' villages. The Panch Maháls District was excluded from the schedule in 1885. In Sind the judicial system nearly resembles that of the regulation portion of the Presidency. In Aden and its dependencies the Resident has rather more extensive powers than a District and Sessions Judge, but his decisions are in certain cases subject to revision by the High Court at Bombay. His assistants are usually invested with inferior civil and criminal jurisdiction. The Resident's Court is also a Colonial Court of the Admiralty. In the Mewási villages the Collector of Khándesh is ex-officio Political Agent, and his Court has jurisdiction in all civil matters subject to appeal to the High Court. As a Magistrate he has powers to award imprisonment up to five years and fine subject to revision by the High Court.

Village Munsifs and Conciliators.

The village munsifs appointed in the districts of Poona, Sholápur, Sátára, and Ahmednagar under Act XVII of 1879 (the Dekkhan Agriculturists' Relief Act) have, some within the limits of a group of villages and some within the limits of a single village, power to dispose of petty suits up to Rs. 10 in value. The conciliators appointed by the same Act are not Courts, but, as they now play a considerable part in the administration of justice in the Deccan, they cannot be passed over without remark. Their functions are, on the application of either of the parties to a dispute, to endeavour to induce them to agree either to a compromise or a reference to arbitration. If the conciliators succeed, they may send the settlement arrived at, or the reference agreed to, to the Court to be filed, when it has the effect of a decree or reference to arbitration under the Code of Civil Procedure. If they fail, they grant a certificate to that effect, and either party can then seek redress in Court; but without such certificate no suit to which any agriculturist residing within any local area for which a conciliator has been appointed, may be entertained in a Civil Court. There were last year, 89 village munsifs and 228 conciliators, and during the same period 7,761 suits were instituted in the Courts of Village Munsifs, while 23,957 applications were made for the intercession of conciliators, in 12,244 of which it is believed that their intervention was successful.

Other Civil Courts.

Under Act XIII of 1889 Cantonment Magistrates may be invested with civil jurisdiction within a limit of Rs. 500. Mámlatdárs have, under Bombay Act III of 1876, jurisdiction in suits regarding immediate possession of immoveable property. Their decisions are not liable to appeal, though subject to revision by the High Court, and the party put in possession by a mámlatdár under the Act may retain it as against the defendant in the possession suit unless or until ousted by the decree of a competent Civil Court.

Bombay Judicial System.

As compared with the administration of justice in other parts of India the characteristic feature of the Bombay system is the permanent separation of the persons by whom judicial and executive functions are exercised. After some years of revenue and executive work covenanted civilians elect to remain in the revenue or to enter the judicial branch of the service, and do not thereafter revert from one to the other. The grade of Assistant Judge, established by the Code of 1827, provides a training for the office of District and Sessions Judge.

Criminal Courts.

District and Assistant Judges under the title of Sessions Judges and Assistant Sessions Judges, exercise criminal jurisdiction. But original criminal work is to a great extent disposed of by the executive district officers who, in addition to their revenue duties, are invested with magisterial powers. There are under the provisions of the Criminal Procedure Code, in addition to the High Court, four grades of Criminal Courts—those of the Magistrates of the Third, Second and First Class respectively and the Courts of Sessions.

FORM OF ADMINISTRATION.

The different classes of Magistrates are invested with the following powers:—Magistrates of the Third Class with power to inflict imprisonment not exceeding one month and fine not exceeding fifty rupees; Magistrates of the Second Class with power to inflict imprisonment not exceeding six months and fine not exceeding two hundred rupees; Magistrates of the First Class with power to inflict imprisonment not exceeding two years and fine not exceeding one thousand rupees. Magistrates of the First and Second Classes may also pass sentences of whipping. In each district the chief revenue officer, under the title of Magistrate of the District, has special powers of controlling Magistrates of all classes within the limits of his executive charge. The Court of the Magistrate of the District is also a Court of appeal from the sentences of any Magistrate of the Second or Third Class within the district. First and Second Class Magistrates, not being District Magistrates, may, if specially empowered by Government, decide appeals from the decisions of Magistrates of the Second and Third Classes, and both First and Second Class Magistrates may, under the title of Sub-Divisional Magistrates, exercise, if so empowered, many of the functions of the Magistrate of the district within the sub-division of the district which is placed under their charge, remaining, however, subject to the control of the District Magistrate.

The total number of Magistrates of all classes is 686, of whom 23 are District Magistrates, 4 Presidency Magistrates, 152 Magistrates of the First Class, 254 Magistrates of the Second Class, and 253 Magistrates of the Third Class.

Under the general title of Courts of Session three grades of officers are included—the Sessions Judge who is the District Judge, the Joint Sessions Judge who is the Assistant Judge with full powers, and the Assistant Sessions Judge who is the Assistant Judge. The Sessions Judge is empowered to try any offence, and to pass upon any offender any sentence authorized by law, subject, in the case of a capital sentence, to confirmation by the High Court. The Joint Sessions Judge can only try cases which by general orders of Government he is empowered to try, or which are made over to him by the Sessions Judge, but, except in the matter of revision, he has equal powers on the bench with the latter. The Assistant Sessions Judge can only try such cases as are made over to him by the Sessions Judge. Sentences of transportation and of imprisonment for more than 4 years passed by an Assistant Sessions Judge require the confirmation of the Sessions Judge, while in no case can the sentence of an Assistant Sessions Judge exceed imprisonment or transportation for seven years.

Police.

The police force consists of two distinct bodies, the stipendiary and the village police. The stipendiary force is divided into grades, the members of which, beginning as constables on a monthly pay of Rs. 7, have the opportunity of becoming head constables, chief constables or even inspectors. The chief constable has charge of a táluka, the inspector, of a division of a district, or even more, on a monthly pay varying from Rs. 100 to Rs. 250. It is not the purpose of Government to give to the stipendiary police a regular military character, and a portion only are armed, to whom the duties of guarding jails and lock-ups and the escort of prisoners and treasure are allotted. In 1891-92, 8,778 policemen out of a total strength of 19,112 men were armed with carbines and bayonets. The knowledge of drill required from them is not very elaborate. The more purely police functions are discharged equally by members of the armed and of the unarmed branches of the force. The proportion of police to area and population of the different portions of the Presidency varies greatly, being determined by a consideration of the nature of the country, the density and character of the population, and the neighbourhood of Native States. In the Northern Division there is one policeman to every 3 square miles and to 844 inhabitants; in the Central Division, one to 6½ square miles and to 1,055 inhabitants; in the Southern Division, one to 6 square miles and to 1,128 inhabitants; and in Sind, one to 11 square miles and—the population being sparse—to 669 inhabitants. Of the total Police force excluding officers 1,229 were mounted. In two districts of the Presidency, Khándesh and Panch Mahál, there are bodies of armed police organized regimentally. These are the Khándesh and the Gujarát Bhil Corps, which were originally raised for the purpose of providing employment for the Bhil tribes. They perform the duties of armed police, but are capable of acting in large bodies in military order. The Khándesh Corps numbers 810 and the Gujarát Corps 488 men and officers. A reorganization scheme which provides for very necessary increases in numbers and improvement in the pay of the Police has been formulated and it is expected that it will shortly come into force.

The stipendiary police are administered in accordance with the provisions of Bombay Act IV of 1890. For the purpose of control in the Presidency proper the whole force is under the Inspector General of Police, but certain administrative powers have been reserved to the Commissioners of Divisions. In Sind the old arrangement, under which the Commissioner is the head of the Police, still continues. The executive management of the police in each district is vested, under the general direction of the Magistrate of the district, in a Superintendent of Police, who has in some cases one or more Assistants under him, and often also one or more probationers. The probationary grade of police officers has been constituted for the purpose of training young officers for the important posts of Assistant Superintendent or Superintendent. To enable them effectually to preserve the peace and prevent crime, and to conduct proceedings preliminary to trial, the Superintendents

and Assistant Superintendents are invested with magisterial powers, but are limited in the use of them to the functions above specified. The police sub-division or táluka of a district is the same as the sub-division for revenue purposes. The Chief Constable, or Faujdár, who has charge of it, holds a position distinctly inferior to that of the Mámlatdár, but is quite independent of the latter in his executive control of the police under him, and answerable only to the Superintendent or Assistant Superintendent of Police. The regular police force allotted to each sub-division is divided into a number of out-posts, each party under the control of a head constable. The members of each police guard move about from village to village within the limits of their charge, and thus a regular system of patrol is maintained throughout each district of the Presidency.

Railway Police.

A special police organization exists in connection with the railways of this Presidency. The police employed along each of the principal lines of rail—the Great Indian Peninsula, the Bombay Baroda and Central India, and the Southern Marátha Railways—are under the supervision of a Railway Superintendent of Police. Originally the constables and inferior officers of the railway force were members of the several districts traversed by the railway allotted for special railway duty. By this arrangement they were not, to the extent that was advisable, under the Railway Superintendent. In practice this division of power and responsibility was found to be a serious hindrance to efficiency. The system was therefore changed; the railway police were constituted into distinct bodies, looking for promotion within their own ranks, and subject to the control only of the Superintendent of Railway Police. This change has proved satisfactory. There are three Superintendents of Railway Police, one each for the Great Indian Peninsula, Bombay Baroda and Central India, and Southern Marátha Railway. The portion of the Rájputana-Malwa Railway, which lies in this Presidency, is, like the rest of that system, under an Assistant Inspector General of Police, whose head-quarters are at Ajmere.

Bombay City Police Force.

The total strength of the police of all ranks serving in the Town and Island of Bombay will, under the re-organization scheme recently sanctioned, amount to 1,901, of whom 33 will be mounted. The whole force is under the control of the Commissioner of Police for Bombay, who is assisted by a Deputy Commissioner and nine Superintendents. The total number of Europeans employed was 50 in 1891. The Municipal Corporation of Bombay pays a fixed share of the charges.

Village Police.

Under the provisions of Bombay Act VIII of 1867 the Village Police are, subject to the control and direction of the Commissioner, administered by the different District Magistrates. It is their special duty to prevent crime and public nuisances and to detect and arrest offenders within village limits. They are not stipendiary, but receive perquisites from the inhabitants of the village or rent-free lands or small sums of money from Government. In each village the village police are under the charge of the Police Pátil, who is often, but by no means always, the person conducting the duties of revenue Pátil. His duties as Police Pátil are to furnish the Magistrate of the district with any returns or information called for, and to keep him constantly informed as to the state of crime and all matters connected with the village police, and the health and general condition of the community in his village. Under a form of administration which preserves the village as the unit of collection in revenue matters, the institution of village police naturally holds an important place. Their condition, however, is still unsatisfactory and calls for reform. "The actual importance of the village police cannot for one moment be overlooked. Without the aid of the village police not a single offence could be traced out. They are the real backbone of the detective police. They know all that is going on, and know every one in the villages. The village police are, however, now so wretchedly paid and so entirely without organization, that it is lamentable to think how the country is losing the services of the most valuable body of men."* No organized steps have yet been taken to improve their position, but inquiries have been instituted as to the most effective method of so doing, and it is hoped that before long some practical measure will be introduced.

Sind Village Police.

"There are no hereditary village police in Sind, their places being taken by the local zamindárs, who cordially and loyally give the assistance of their great influence to the police in all criminal cases; while the tracking of criminals and stolen animals by their foot-marks is a specialty with certain inferior tribes, who are partly supported by gifts from the owners of stolen animals, partly by the community and also by their own labour. The skill exhibited by those pagis, as they are styled, might almost be called a sixth sense, and is akin to the faculty developed by shepherds in Europe, who can recognise each individual out of a herd of a thousand sheep. Only a few months ago a pagi in the Nausháhro district noticed on the road the foot print of a camel and recognised it as that of a stolen animal which he had failed to recover more than 12 months before. He started in pursuit and brought back the animal and the thief to the police; and a criminal will almost always yield and confess when the pagi testifies to the identity of his foot prints. His Excellency Sir Richard Temple was desirous that both the wadhero or head zamindár and the village pagis should be brought into closer and more legal touch with, and subordination to, the stipendiary establishments. His Excellency also entertained the idea of making their posts hereditary. But little or nothing has as yet been done as regards the creation of official pátils, for the simple reason that the zamindárs are far too proud to take money for their services or to place themselves in a position which would entitle the Chief Constable to de-

* Commissioner, C. D., 1882.

FORM OF ADMINISTRATION.

mand the assistance which they now give freely when asked for. Moreover, the selection of particular wadheros to hold an official position in particular dehs, would, in parts of the country where influential zamindárs are numerous, create a feeling of discontent amongst those who were not so singled out, and the creation of a new class of hereditary office-holders is much more beset with difficulties than the conservation of those whom the Government elsewhere found in existence; besides, the present system continues and works admirably, of rewarding zamindárs for service rendered by the gift of a sword or lungi occasionally. Many of the wadheros are chiefs of tribes or sub-tribes, and their influence is less local than tribal, so that it would never do to prescribe local areas in which they would be chief men. In one deh, close to my camp, there are two leading men, one a Sayad and the other the chief of a powerful Baluch tribe, and the police would have recourse to either of them, according as the criminal they were in quest of was a Sindhi or Baluch. In the wild district of Thar and Párkar where the cultivators are more insignificant men, some small grants of lands have been given free at the expense of the Cess Fund to the amount of Rs. 1,383 per annum, and there are some other small grants aggregating Rs. 9,458 throughout the whole province, dating mostly from Sir Bartle Frere's time and given more as a compliment and in recognition of high position than as pay for service rendered. These old grants have not been added to of recent years. Practically, therefore, the creation of hereditary pátils in the Deccan sense of the word has not been and is not likely to be attempted. The wadheros consider it such a privilege to aid the Sárkár, that the possession of an hereditary watan would be as little an incentive to them to assist the police, so far as the honour of the appointment is concerned, as that of a poor-law-guardian would be to a country squire in England.

"The humbler pagis, however, are in different case. The bulk of the zamindárs are no longer wealthy, and cannot fee them as they were wont to do, and the tendency is for the pagis themselves to think more of their own means of livelihood as agricultural labourers or tenants than as the guardians of the property of their neighbours, and it has long been recognized that they should receive proper pay, which will not only recompense them for the labour and loss of time to which they are put in pursuing criminals and attending courts to give evidence, but also make them willing to keep a watch on bad characters, and report their advent and movements to the police."†

Proposals for the reorganization of the village police in the Province of Sind are at present under the consideration of Government.

Revenue.

The Revenue administration of the Regulation Districts of the Presidency of Bombay is carried on by the following officers acting under Government:—3 Commissioners, 12 Senior and 8 Junior Collectors (including the appointments of the Collector of Salt Revenue and the Collector of Land Revenue, Customs and Opium, Bombay), 15 to 18 First, 11 to 14 Second Assistant Collectors, and a varying number of supernumerary Assistant Collectors. All the above officers are members of the Covenanted Civil Service, or of the Native Civil Service appointed in India and now to be merged in the New Provincial Service. There are in addition 48 Deputy Collectors (including the Personal Assistants to the Commissioner of Customs, Salt, Opium, and Abkári, and the Survey Commissioner and Director of Land Records and Agriculture, and the Alienation Assistant to the Commissioner, C. D.). They are divided into six grades, and are, with the exception of the officers above mentioned and of the Assistants to the Commissioners, generally in charge of district treasuries or of divisions of districts. In Sind, under the Commissioner, the administration is carried on by three Collectors and two Deputy Commissioners, three Head Assistant and three Second Assistant Collectors and about eight Covenanted Assistant Collectors borne on the general list. Two of the Collectors belong to the military and one to the Covenanted Civil Service and the three Head and three Second Assistant Collectors to the Uncovenanted Service. There are also fifteen uncovenanted Deputy Collectors in Sind. The appointments on the Sind Commission are being gradually absorbed into the general list.

The following general review of District Administration in this Presidency is reprinted from the "Annals of Indian Administration":—

"An average collectorate contains twelve tálukas or sub-divisions, each of which contains about one hundred Government villages; that is to say, villages that are not alienated and the total revenues of which belong to the State. Each village has its regular complement of officers, who are usually hereditary. The officers on whose services Government is mainly dependent are the pátil, who is the head of the village for both revenue and police purposes. The taláti or kulkarni, who is the clerk and accountant; the mhar who is a kind of beadle; and the watchman. The pátil and kulkarni either hold a certain quantity of rent-free land or are remunerated by a cash payment equivalent to a certain percentage on the collections. The mhar and watchman in common with other village servants, also hold land on more or less favourable terms as regards assessment, and receive besides grain and other payments in kind from the villagers. The other servants are the carpenter, blacksmith, potter, barber, and others whose services are necessary to the community. A village is for Government or social purposes complete in itself, and is so to speak independent of the outer world. The revenue accounts of a village are simple but complete. The survey register is the basis of them. Every occupant is given a separate receipt book in which

† Commissioner in Sind, 1892.

the total amount of his holdings is entered and the pátil and kulkárni are bound, under heavy penalties to record in it the sums he has paid. Each year what is termed the jamábandi of the village is made, at which time the total amount of revenue due from the village is made out. In point of practice this is now, as far as Government interests are concerned, a very simple business as there is little or no unoccupied land, and the jamábandi as nearly as possible represents the sum entered in the register. But it is a process that nevertheless is of considerable use and could not be safely dispensed with. In the first place it brings the Assistant or Deputy Collector in annual contact with each village in his charge and enables him to judge of its wants and requirements. It is the time at which all cultivation and other returns useful for statistical purposes can be checked. Above all it is the time at which the village accounts can best be examined, transfers of numbers verified, and such a scrutiny made as is essential to the protection of the individual occupant from fraud.

"Over each táluka or sub-division of a collectorate there is an officer termed Mámlatdár, whose salary varies from Rs. 150 to 250 per mensem. The Mámlatdár is responsible for the treasury business of his táluka. He has to see that the instalments are punctually paid by the several villages, that the village accounts are duly kept, that the occupants get their payments duly receipted, that the boundary marks are kept in proper repair, and, in fact, to see that the village officers do their work properly. He has also to look after the administration of the Local Funds, and is a Subordinate Magistrate. The system must be entirely one of check and percentage examination. A certain number of villages are appointed to the several members of the Mámlatdár's establishment, and placed under their supervision: it is his business to see by personal examination that they do their work. An Assistant or Deputy Collector is placed in revenue charge of, on an average, three tálukas. He has to travel about them during seven months in the year. He has to satisfy himself by direct personal inspection that the revenue work is being properly done; he sees that the revenue of each village is properly brought to account at the time of the annual jamábandi, nominates the village officers, judges for himself of the want of his tálukas in respect of local roads, wells, tree plantation and the like, hears appeals from the orders of Mámlatdárs, replies to references made by them, and generally supervises their proceedings. The Collector and Magistrate is placed over the whole district. He has also to travel at least for four months in the year. The Revenue Commissioners, of whom there are three, two for the Regulation Districts and the Commissioner in Sind,—exercise a general superintendence and control over the revenue administration of the Presidency. These officers are constantly on the move in their respective Divisions during the fair season. They have thus an opportunity of judging for themselves of the requirements of the several parts of the country, of the manner in which both the revenue and police administration is being carried on and of the qualifications of the several officials. They entertain appeals from the Collectors' decisions and are the channel of communication between them and the Government. From June to October the Commissioners of the Regulation Districts reside at Poona, which is also at that season the head-quarters of the Government. Opportunity is thus afforded for personal intercourse and Government can at any time obtain their joint opinion on any question of general importance. In this way step by step beginning with the village officers and ending with the Commissioners the people are brought into direct communication with the Government."

The above gives a very fair idea of the general system of revenue administration at present in force in the Bombay Presidency. A few changes have been made such as the introduction of local self-government in the form of partly elective Local Boards, which will be noticed below, the creation of a third revenue Division, and the issue of the orders under which each Commissioner resides in his revenue division.

Besides superintending the realization of the revenue, the duties of administering the excise and other special taxes and of supervising the stamp revenue devolve in each district upon the Collector, as executive head of the district; he is also the District Registrar and Visitor of the District Jail, and has important duties to perform in connection with local funds and municipalities, with the Land Acquisition Act (X of 1870) and the forests, and his opinion is required in all questions of executive administration.

Local Funds.

The system of Local Board administration underwent a great change in 1884, when an Act was passed with the view of promoting interest among the people in local matters and of giving them a voice in the disposal of local funds. For each district a distinct Local Board has been established and for each táluka a Táluka Local Board, the latter being subordinate to the former, and the right of election has been given in all but a few backward parts of the Presidency. The Táluka Local Board, which is the unit of local self-government, consists of elected and nominated members, the former to be not less than one-half of the whole Board exclusive of the President. The number in each Board is fixed by Government, and the táluka is divided into groups of villages, each of which returns one member. Honorary Magistrates, Revenue or Police Pátils, holders of land assessed at Rs. 48 per annum, owners of immoveable property worth Rs. 5,000, persons who earn at least Rs. 500 per annum and pensioners in receipt of Rs. 50 per mensem are entitled to vote at the elections and to stand as candidates. In addition to these, holders of entire alienated villages elect one member from among their own number and municipalities with a population of more than 5,000 each elect a member from among the number of municipal commissioners. The remainder are nominated by Government on the recommendation of the local authorities,

FORM OF ADMINISTRATION.

but not more than half of the nominated members may be salaried servants of Government. The elective members of District Local Boards consist of:—

(a) One or more members for each Táluka Board or group of Táluka Boards.

(b) One member for each municipal district containing not less than 18,000 inhabitants, elected by the municipal commissioners from among their own number.

(c) One member elected by the holders of entire alienated villages from among their own number.

The Collector is usually appointed to be President of the District Local Board and the Assistant Collector of the Táluka Local Boards in his charge, and when this is done the Boards elect a Vice-President, who exercises the powers delegated to him by the President. The funds at the disposal of the Boards consist chiefly of the one anna cess on land, but there are other revenues assigned under section 44 of the Act such as proceeds of ferries, tolls on local fund roads, quarrying fees, &c. In addition to these considerable extra grants are made by Government for education and water-supply. The greater part of the revenue is usually spent by the District Board on works of general utility to the whole district, but each Táluka Board has some funds at its disposal to carry out the works for which it is responsible, *viz.*, the construction and maintenance of such works and roads as are purely local (to the táluka). At least one-third of the net revenue from the one anna cess must be spent on education. The total expenditure from District Local Funds during the year 1892-93 amounted to Rs. 46,75,715, of which Rs. 14,68,365 were expended on education, and the remainder on roads, tanks, wells, dispensaries, and other useful works and services. Certain powers of control are reserved by the Act to the Collector, the Commissioner and to Government, but they have been rarely exercised. Notwithstanding the extensive powers granted, the measure, in so far as it aimed at creating an interest in local self-government, has not been altogether a success.

Municipalities.

The Municipal affairs of Bombay are regulated by Bombay Act III of 1888 and the powers of the Corporation practically uncontrolled by Government. In the rest of the Presidency proper and in Sind the Bombay Act VI of 1873 as amended by Bombay Act II of 1884 is in force. By the latter Act the distinction between city and town municipalities was abolished, and with a few exceptions, all permanent municipalities now consist partly of elected and partly of nominated members. The proportion of the former must not be less than half of the whole number (exclusive of the President), and of the latter not more than one-half may be salaried servants of Government. The President is ordinarily selected by Government, but he may if Government so direct be elected by the Commissioners, and if in either case a salaried servant of Government be chosen, the Commissioners elect a Vice-President, who exercises powers delegated by the President. Considerable powers of control have been reserved to the Collector, the Commissioner of the Division, and Government, and Government have power in cases of repeated default of duty to supersede municipalities. This power has been exercised several times of late years, chiefly in connection with the refusal of municipalities to carry out necessary reforms in taxation. Municipalities are expected to make provision for roads, dispensaries, water supply, sanitation, education, and generally to carry out measures necessary for the public health and convenience. They are allowed, subject to sanction of Government, to raise funds by direct and indirect taxation, and when any special works are carried out, such as water works, roads or conservancy services, special rates may be imposed. It has, however, been the general policy of Government to urge the abolition of octroi in areas in which it was found to act as a mere transit duty, and the introduction of a properly graduated house tax has in such cases been advised and usually adopted. It was represented to Government that many of the smaller towns wherein it was proposed in the years 1889-90 and 1890-91 to establish municipalities would be overburdened by a system of Local Self-government, such as that defined by the District Municipal Act. The income they could depend upon would have been insufficient to fulfil the obligations imposed by the Act, and to provide for the sanitary and other needs of the local areas in question. For this reason only and in the interests of the rate-payers, and not from misgivings as to the propriety of extending where sufficient means were available, the principle of Local Self-government, it was decided to abolish certain municipalities, which indeed had scarcely emerged from an embryonic existence. Most of the Municipalities are in a flourishing condition, and in the larger ones especially party feeling runs high at the triennial elections. Their total income in 1892-93 amounted to Rs. 50,70,824, and the balances, which were usually accumulated for the construction of important works, to Rs. 22,36,978.

Medical Department.

The head of this department is the Surgeon-General with the Government of Bombay. The number of covenanted medical officers who are subject to his authority is 42, who are all in actual charge of medical duties in the Presidency. There are also in the service of Government three lady doctors, who are employed at the Pestanji Hormasji Káma Hospital for women and children in Bombay. One Civil Surgeoncy is held by an Uncovenanted officer. There are 52 Assistant Surgeons and 290 Hospital Assistants of various grades, who are mostly employed in dispensaries. There are three medical schools in the Presidency—at Poona, Ahmedábád and Hyderábád, all of which are useful institutions. During the last decade the following new institutions have been opened in the Presidency Town:—

The Pestanji Hormasji Kama Hospital for women and children, built out of a sum of Rs. 1,64,311 given by the late Mr. Pestanji Hormasji Cama, C.I.E., the site on the esplanade, valued at Rs. 2,85,000, being given by Government.

The Jaffar Sulemán Dispensary for women and children, built out of a sum of Rs. 20,000 given out of the estate of the late Mr. Jaffar Sulemán. This institution is maintained as a dispensary for out-patients at the Kama Hospital.

The Bamanji Edalji Albless Hospital, situated in the compound of the Kama Hospital, and worked in conjunction with that hospital. It was constructed out of a sum of Rs. 60,000 given by the trustees of the estate of the late Mr. Bamanji Edalji Albless.

The Bai Motlibai and Sir Dinsha Manekji Petit Hospitals for women and children in the immediate vicinity of the Jamshedji Jijibhai Hospital. Bai Motlibai made a contribution of Rs. 1½ lákhs and gave a free site, and Sir Dinsha Manekji Petit made a contribution of Rs. 1,25,000 for the construction of these hospitals. The Dvarkadas Lallubhai Dispensary for out-patients at these hospitals was built out of donation of Rs. 11,000 made by Mr. Dvarkadas Lallubhai.

The Leper Home at Matunga, established in 1890 for homeless lepers. The home was built from donations from the general public, and is maintained by Government and the Bombay Municipality.

In the Mofussil a dispensary for women and children, called the Victoria Jubilee Dispensary, has been established at Ahmedábád by the Honourable Mr. Ranchhodlal Chhotalal, C.I.E. The institution receives an annual grant-in-aid of Rs. 2,000 from Government.

In 1889 His Highness the Mahárája of Bhávnagar placed at the disposal of Government a sum of Rs. one lákh to be invested as an Endowment Fund for the training and maintenance of nurses. This fund is entitled the Lady Reay Fund for Nurses. A home for pupil nurses, called the Avabai Bhavnaggree Home, has been built in the compound of the Grant Medical College at a total cost of Rs. 30,699. Of this sum Rs. 15,699 were the gift of Mr. Mancherji M. Bhavnaggree, C.I.E. The training of the pupil nurses is entrusted to the All Saints Sisters under the control of the Senior Medical officer of the Jamshedji Jijibhai Hospital, with such assistance from the Honorary Physicians and Surgeons as those gentlemen may be able with advantage to afford.

An important branch of the Civil Medical Department which is not under the Surgeon-General is the Sanitary Department under the control of the Sanitary Commissioner, five Deputy Sanitary Commissioners,* one Superintendent of Vaccination, Presidency Circle, and a Health Officer of the Port of Bombay. The duties of these officers are to superintend and encourage the sanitation of the districts and towns comprised within their charges, inspect dispensaries, and generally advise the district officers. When in case of an epidemic or from any other cause the pressure of work becomes excessive in the Civil Medical Department, Medical officers can be removed to it temporarily from military duty. In 1892 a Sanitary Board was constituted, consisting of the Sanitary Commissioner and a selected Public Works Engineer. The duties of the Board are to give advice and assistance to Local Boards, to Municipalities, and to all departments of Government in all matters relating to the public health, and, when required, to prepare or examine sanitary schemes. It is hoped that this Board will supply a long-felt want, as many local bodies have been willing to carry out sanitary reforms, but have found it difficult to obtain the necessary advice.

* Deputy Sanitary Commissioner, Western Registration District.
Do. Central do.
Do. Southern do.
Do. Gujarat do.
Do. Sind do.

The Public Works Department is administered by 2 Chief Engineers (the senior of whom is usually Secretary to Government), 3 Superintending Engineers, 42 Executive Engineers divided into 4 grades and 41 Assistant Engineers divided into 4 grades, of which the lowest is entitled the Apprentice grade. An additional Superintending Engineer has recently been sanctioned for Sind. In the Railway Department there are a Consulting Engineer and four Deputy Consulting Engineers. Public Works Department.

For educational purposes each district is provided with a Deputy Inspector, and there are four Inspectors, one for each Revenue Division and one for the Province of Sind. The control of the whole department is vested in the Director of Public Instruction. Of educational institutions the principal is the University of Bombay, which is the only one in the Presidency possessing the power of conferring degrees. Government have marked their appreciation of a College education by laying down rules ordaining that special preference shall be shown to native graduates of the University in appointments and promotions to posts in the Revenue Department. In addition to the Elphinstone, St. Xavier's, Deccan, and Gujarát Colleges mentioned before, there are the Wilson, Dayaram Jethmul, Rajaram, Baroda, Fergusson, and Samaldas Arts Colleges, all of which prepare students for the University Examinations. There is at least one High School at the head-quarter station of each District, which prepares students for Colleges and for the School Final Examination which qualifies for admission into the Public Service. Normal schools for training vernacular masters are maintained at Ahmedábád, Poona, Dhulia, Dhárwár and Hyderábád, and there are also Training Colleges Educational Department.

FORM OF ADMINISTRATION.

for school-mistresses at the above-mentioned places except Dhulia and Dhárwár. There are also several educational institutions for instruction in special sciences, the principal of which is the Grant Medical College in Bombay, attached to the Jamshedji Jijibhai Hospital. The Government Law School in Bombay, the Bombay Veterinary College and the Victoria Jubilee Technical Institute, the School of Art and Reay Art Workshops in Bombay, the College of Science in Poona, and the Law Schools in Poona, Karáchi, Ahmedábád and Baroda, and the School of Industry at Ratnágiri are useful institutions of this nature.

Forest Department.

In the Forest Department the decade has been one of continued progress. For purposes of administration, the Presidency has been divided into four forest circles, corresponding to the four revenue divisions. Two of these circles are in charge of Conservators and two of Deputy Conservators. The superior Forest Staff has been twice re-organized during the last ten years, and in addition to the two Conservators, consists of 29 Deputy and Assistant Conservators who form the upper controlling staff. There are also 19 Extra Assistant Conservators who form the lower controlling staff. A fixed proportion of the latter may, after five years' approved service in that grade, be promoted to the upper controlling staff under the title of Extra Deputy Conservators. With this exception the upper controlling staff is recruited entirely by officers appointed under covenant with the Secretary of State. The Deputy and Assistant Conservators of Forests have generally each a forest division in their charge, and under them are Rangers, Foresters, and Forest Guards. The important question of the relations of forest to revenue officers has lately engaged the attention of Government, and rules under the Forest Act have been issued limiting and defining their respective powers and duties. The principle underlying the rules is that forest administration is a branch of the general administration, and that therefore the central authority in forest matters must be the Commissioner of the Division, subject to the general orders of Government. All Forest officers are under his authority. Forest officers in charge of circles have full powers in all professional operations of technical forestry, but in all other matters, such as those of rights and privileges of the people in forests, local supply of grass, grazing, and fodder, and generally as regards the relation of the department with the people, control vests in the local revenue officers and the forest officers are subordinate to them for these purposes and act as consultative officers only. The work of forest settlement and demarcation, that is to say, of enquiry into rights and claims that are preferred over lands required for forests and of choosing and marking off forest areas has made very great progress, though in parts of Thána, Kánara, and Sátára, where special officers are employed, much yet remains to be done. In Sind it has been found necessary to increase largely the forest area, owing to heavy demands for fuel by the North-Western Railway and the Commissariat Department, and a special officer has been appointed to select land for the purpose. Forest survey parties have been employed in the Presidency since 1888, and working plans parties have been organized with a view to ascertain the capabilities and to prepare scientific schemes for the exploiting of the forests, so that they may be worked up to the maximum of their capacity. Under the orders of the Government of India, all forest land is now being divided into (*a*) Forest proper, (*b*) Fuel and fodder reserves, and (*c*) Pastures. The total area under forest at the end of 1892-93 was 13,820 square miles, of which 9,631 square miles are reserved and 4,199 square miles protected forest. The revenue and expenditure during that year were Rs. 36,81,781 and Rs. 22,86,590 respectively, figures which bear testimony to the great progress made during the last ten years.

Opium Department.

This Department is under the control of the Commissioner of Customs, Salt, Opium, and Abkári. The manufacture of opium throughout the Presidency has been prohibited; and the importation of opium from Málwa has been restricted to certain specified routes. The cultivation of the poppy has been prohibited in all Native States except Baroda. The total net Excise opium receipts during 1892-93 were Rs. 9,27,333, of which one-fourth was credited to the Provincial and three-fourths to the Imperial account. The total Imperial revenue from opium during that year amounted to Rs. 1,83,68,655. The expenditure on account of a portion of the opium establishment in Bombay City and that employed at the Ahmedábád Opium Agency is debited to Imperial Revenues and amounted in 1892-93 to Rs. 25,955. The expenditure on account of the Excise Opium Department is included in that of the Abkári Department.

Abkári Department.

The administration of this Department is vested in the Collectors (under the general control of the Commissioner of Customs, Salt, Opium, and Abkári as regards the Presidency proper and of the Commissioner in Sind as regards that Province) through their ordinary Revenue and Police establishments assisted by a staff of Distillery and Preventive Inspectors and Sub-Inspectors, a few special ministerial officers, such as gaugers, clerks and kárkúns, and a small number of special A'bkári Police. In Aden, the Abkári establishment is, subject to the control of the Political Resident, under an Assistant Resident, who is Collector of A'bkári. The ábkári revenue of the Presidency proper and Sind during 1892-93 was Rs. 85,16,211 and Rs. 7,86,220 respectively, and the expenditure was Rs. 3,08,663 and Rs. 14,392 respectively. The Abkári receipts and expenditure in Aden are small.

Salt Department.

The Salt Department in the Presidency proper is under the control of the Commissioner of Customs, Salt, Opium, and Abkári, and consists of one Collector, one Deputy Collector and 10 Assistant Collectors, together with a large staff of Inspectors, Sar-kárkúns and minor officials. Besides realizing the salt revenue and administering the law relating thereto, this

department has the entire control of the Uran distilleries, the Continental Customs ports, light-houses, &c. The Salt receipts in the Presidency proper amounted in 1892-93 to Rs. 21,80,6,319 and the expenditure to Rs. 15,83,147. There are separate establishments for Sind and Aden under the control of the Commissioner in Sind and the Political Resident, Aden, respectively. The salt revenue and expenditure in Sind in 1892-93 were Rs. 6,72,447 and Rs. 1,22,609 respectively. The revenue and expenditure in Aden are small.

Customs Department, Bombay and Karáchi Ports.

The Customs administration of the Port of Bombay is managed by the Collector of Land Revenue, Customs, and Opium, Bombay, 4 Assistant Collectors (including the Assistant Collector of Land Revenue, Customs and Opium) and one Superintendent of the Preventive Service, subject to the general control of the Commissioner of Customs, Salt, Opium, and Ábkári. That of the Port of Karáchi is managed by a Collector and an Assistant Collector subject to the control of the Commissioner in Sind. The receipts and expenditure of the Department at the former port amounted in 1892-93 to Rs. 25,28,822 and Rs. 3,62,916 respectively, and at the latter to Rs. 7,68,773 and Rs. 63,808 respectively.

Department of Land Records and Agriculture.

A new department which requires special notice and which is closely connected with the land revenue department is that of Land Records and Agriculture. The Famine Commissioners in 1880 advocated the formation of a special department to collect facts relating to the condition of the agricultural community and the agricultural progress of the country. The Government of India in communicating the recommendation to the Local Government laid special stress on the following points:—

(1) That systematic prosecution of agricultural enquiry must precede any attempt at agricultural improvement;

(2) That the Agricultural Department in the section of its duties appertaining to agricultural enquiry must be brought into close connection with the Land Revenue Department proper; and

(3) That the condition of each district should be carefully studied with a view to ascertaining the measure of protection it enjoyed against famine.

The Agricultural Department in the Bombay Presidency has as far as time has permitted taken up the position in respect to agricultural enquiry which it was designed to fill. The whole Department of agricultural experiment has been re-organized and placed under the direct supervision of a Superintendent of Farms, and various important experiments have been conducted. But these functions have been subordinated to that of carrying out the scheme for improved statistics sketched out by the Famine Commission. The necessity was recognised of adopting special measures to ensure a constant and regular test of the statistical returns which are kept by the village accountants, and which are of great importance in estimating the progress of the village in material wealth and prosperity when the time arrives for a re-settlement of the revenue demands. The Famine Commissioners recommended that a supervising staff should be maintained to improve statistics in order that famine might not overtake the country unprepared and in order that schemes for the well-being of the people might be elaborated. In the Bombay Presidency the staff was required for additional reasons, *viz.*, to provide for the revisions of assessment in the future, to save present expenditure on special establishments, and to give a very urgently needed addition of strength to overworked revenue establishments. It was accordingly arranged that the Survey Department proper should complete the field valuation and survey record and then cease to exist as a separate department, and that all the work connected with the maintenance of the survey record and the preparation of future revision settlements should be entrusted to the Revenue Department, the special establishments maintained for the purpose in each district forming part of the revenue establishments. The special staff thus created consists of a Divisional Inspector of Land Records and Agriculture, District Inspectors and Circle Inspectors. The function of the Director of Land Records and Agriculture in the new department has been limited to inspection and advice, and he has been expressly excluded from control over the district establishments which are subordinated to the Collectors. The position of the Divisional Inspectors is that of assistants to the Commissioners to whose orders they are generally subject, and at whose head-quarters they reside. The Circle Inspectors form part of the Mámlatdárs' establishments and have to perform all the out-door duties originally assigned to the general duty or Bhág-Kárkúns, while the District Inspector supervises the work and also has charge of the Survey Office at Head-Quarters. Assistant and Deputy Collectors and Mámlatdárs are expected to test the work of the Land Records establishments. The new Land Records staff has been introduced in the whole of the Central Division and in the Southern Division excepting the Kolába District. Revised forms for the preparation of agricultural and fiscal statistics have been introduced and a statistical atlas containing an analytical study of each district to show the measure of protection it enjoys against the ravages of famine has been prepared by the Director, Land Records and Agriculture.

The Civil Veterinary Department which includes (1) the Horse-breeding Department and (2) district veterinary establishments* comprising officers in charge of district veterinary dispensaries and itinerating veterinary officers, has been subordinated to the Director, Land Records and Agriculture.

* These establishments are Local, Government paying a contribution towards their salary, &c., and retaining the right of supervision through its officers.

FORM OF ADMINISTRATION. Minor Departments.

Of the minor departments the Jail and Registration Departments require special notice. For the purposes of Registration the Presidency is divided into Districts and Sub-Districts, which correspond in the main to the Revenue Collectorates and Tálukas. The Collector is the Registrar of the District and in almost every táluka there is a Sub-Registrar who is subordinate to him. There are also Village Registry Offices established under the Dekkhan Agriculturists' Relief Act in the districts of Poona, Ahmednagar, Sátára, and Sholápur, where that Act is in force. The working of the Department is under the supervision of an officer entitled the Inspector-General of Registration and Stamps. The revenue and expenditure were in 1892-93 Rs. 5,70,849 and Rs. 2,77,937 respectively as compared with Rs. 2,73,650 and Rs. 2,33,539 in 1881-82.

There are three classes of jails; subordinate jails of which there are 27 in all, placed at different points all over the Presidency for the confinement of persons sentenced to short terms of imprisonment; district jails many of which have since 1887 been abolished; and one Central Jail at Yerraoda near Poona. There are two extra-mural gangs, one in the Deccan and one in Sind, and two juvenile prisons. The office of Superintendent of the Jail is ordinarily held by the Civil Surgeon, and the immediate charge of the jail is in the hands of a jailor subordinate to him. All the jails in the Presidency are under the control of the Inspector-General of Prisons, who is also the Inspector-General of Registration and Stamps. Regular provision is made for the appointment of visitors to each jail.

Character of Land Tenures; system of Survey and Settlements.

Revenue Survey—origin of the measure.

The revenue survey of the Bombay Presidency has been in progress for a period of fifty-seven years. In its origin it was simply an experimental measure, carried out with a very limited establishment, in a single táluka (Indápur) of the Poona Collectorate, and with the object of correcting the work of a previous survey preparatory to a revision of assessment.

Impoverished state of the Deccan due—(1st) To fall in money value of the agricultural produce. (2nd) To a previous settlement.

When the present survey was commenced, the Deccan had been for seventeen years under British rule. In that space of time it had been reduced from a comparatively prosperous condition to the extreme of impoverishment and exhaustion. Two causes had been mainly instrumental in bringing about this state of things: one was the continuous fall in the money value of agricultural produce, due to a variety of circumstances which need not here be specified, and the consequent yearly increasing pressure of the State demand on the land; the other was a settlement effected in connection with the previous survey. This survey and settlement had been carried out under the direction of Mr. Pringle, of the Civil Service. His settlement attempted to fix the Government demand at about half (55 per cent.) the net produce, and therefore entailed not only estimates of the yield of various crops and soils, but of the cost of cultivation.

Defects of former settlement.

The execution of the different operations of Mr. Pringle's survey was entrusted entirely to native agency without either the experience or integrity needed for the task, and at a subsequent period the results obtained were found to be nearly worthless. The preliminary work of measurement was grossly faulty, and the estimates of produce which formed such an important element in the determination of the assessment, and which had been prepared in the most elaborate manner, were so erroneous as to be worse than worthless. But meanwhile the settlement had been introduced, and with the result of aggravating the evils it had been designed to remove. From the outset it was found impossible to collect anything approaching to the full revenue. In some districts not one-half could be realized. Things now went rapidly from bad to worse. Every year brought its addition to the accumulated arrears of revenue and the necessity for remissions or modifications of rates. The state of confusion in the accounts, engendered by these expedients, was taken advantage of by the native officials to levy contributions for themselves. Every effort, lawful and unlawful, was made to get the utmost out of the wretched peasantry, who were subjected to torture, in some instances cruel and revolting beyond description, if they would not or could not yield what was demanded. Numbers abandoned their homes and fled into neighbouring Native States. Large tracts of land were thrown out of cultivation; and in some districts no more than a third of the culturable area remained in occupation.

Measures taken in 1835.

It was when matters had reached this crisis that, at the end of 1835, an examination and correction of the operations of Mr. Pringle's survey in the Indápur Táluka of the Poona Collectorate were ordered in view to a revision of the settlement in that district. The duty of conducting the work was entrusted to Mr. Goldsmid, of the Civil Service, then an Assistant Collector, and Lieutenant Wingate,* of the Engineers. With these gentlemen Lieutenant Nash, of the Engineers, was subsequently associated. This was the real commencement of the revenue survey in the Bombay Presidency.

New method of classification adopted.

As the new operations progressed, the extremely defective character of the original survey became apparent. Much of the measurement had to be undertaken *de novo*, but when areas were not faulty to any great excess they were accepted as the basis of the new assessment. An entirely new method of classification was adopted. Abandoning all attempts

*Afterwards Major Sir George Wingate, K.C.S.I.

CHARACTER OF LAND TENURES, &c.

to arrive at a theoretical ideal of assessment by endeavouring to discover the yield of different soils, and assigning a certain proportion of this as the Government demand, the survey officers adopted the simple expedient of ascertaining the average character and depth of soil in each field, and classing it accordingly,—no more than nine gradations of valuation being employed for the purpose. In fixing the rates of assessment they were guided by purely practical considerations as to the capability of the land and the general circumstances of the district. The more intelligent among the agricultural class were even taken into consultation on the subject, and their opinion allowed due weight. No safe standard of assessment existed. The rates in force in the prosperous times of the district had, through the continuous depreciation in the value of money, long ceased to represent any moderate share of the produce of the land, and the ruinous consequences of the first settlement forbade any reliance being placed on the system of fixing the Government demand on estimates of the yield of the land.

Founded on the capability of the land and the general circumstances of the districts.

The result showed the wisdom of the course taken. In the second year of the Indápur settlement the Revenue Commissioner reported to Government that "the sum *actually collected has never been so great* except during the first four years of our occupation, when it is generally acknowledged our demands were much too high"; and, again, "the outstanding balances *have never yet been so low at the end of the official year as they were last year.*" A marked extension of cultivation was one of the immediate results of the settlement; nearly 68,000 acres of waste land having been brought under the plough by the end of the second year, besides more than 3,000 acres reclaimed by immigrants from other districts, attracted to Indápur by the revived prosperity of the táluka.

Satisfactory results of the change.

The Indápur experiment having proved thus signally successful, the survey operations were rapidly extended to other districts, the same results following everywhere. In the course of a few years separate surveys were organized for the Poona and Ahmednagar Collectorates and for the Southern Marátha Country. As experience was gained, improvements were introduced in the methods of procedure, the end in view always being to render them as simple and susceptible of thorough check and control as possible, as well as to adapt them to the varying circumstances of the districts which successively came under the survey. But it was not till 1847 that a definite and permanent form was given to the system of survey operations. In that year, in accordance with the orders of Government, the Superintendents of the three surveys met at Poona, and drew up a joint report setting forth what they considered to be "the best means for bringing the somewhat diversified operations of the several revenue surveys of the Presidency into conformity as far as practicable, and also for ensuring the results of the surveys being turned to the best account, and maintained in their original integrity in the future management of the districts." The Superintendents, besides defining the objects of a revenue survey, and the general principles on which the assessment of land should, in their opinion, be conducted, submitted a body of rules for definition and demarcation of fields, the settlement of boundary disputes, the classification of soils, the interior regulation of surveys and the administration of settlements, which having received the approval of Government became an authoritative manual for the conduct of all future survey operations. Up to this period, though there had been a general adherence to the main principles by which the work was governed from its beginning, some diversity of practice had prevailed in the different surveys. A greater degree of uniformity and completeness was now given to it.

Extension of Survey operations into other districts.

Changes in 1847.

Joint Report of the Superintendents of Survey.

The "Joint Rules."

At this point it seems desirable to sketch briefly the general features of the revenue survey system as then defined under official sanction with the modifications which the progress of the survey has since required, though indeed very little modification was made till the survey was completed and till more or less partial revision of the original survey was found necessary.

Sketch of the system.

First, with regard to the interior regulation of the different surveys. Each survey was under the direction of a Superintendent, subordinate to whom were several officers designated Assistant Superintendents, having charge of parties or establishments of measurers or classers. The operations of measuring and classing were conducted, as a rule, by separate establishments, and generally the classification of a district followed the measurement at an interval of one season. Every detail of the survey operations was closely supervised by the Assistants. The work in the field was subjected to regular test by them, and none was accepted as trustworthy unless it had stood such test satisfactorily. On the Superintendent devolved, besides the general control of the survey, the duty of determining the relative valuation of fields, and submitting proposals for settlement to Government, and introducing the settlement when sanctioned. In this last operation an officer of the Revenue Department was usually associated with him. As the allotted task of the Survey Department is now drawing to a close, and as recruitment of European assistants has long been impossible on that account, a small modification of the above organization has recently been introduced. The paucity of European assistants has made a system necessary whereby each party is placed in the immediate charge of a native surveyor of experience and two or more parties have been linked together under a European assistant responsible for a test of the work of both the surveyor and also to a certain extent of the men under him. This cannot be looked on as a return to the faulty organization of Mr. Pringle's survey, for not only have the native surveyors the merit of long and careful training but their work is adequately tested. In view of the responsible position which revenue officers as Mámlat-

Organization of the Department.

CHARACTER OF LAND TENURES, &c.

dárs will hold in respect to the permanent staff to maintain the survey, selections from revenue officers who have qualified as Mámlatdárs are being made to fill the post of surveyors in charge of a party. This ensures a most important training for these selected men in survey details and principles, and also provides a class for the post of surveyor of higher educational attainments than can be secured from men who have risen through the ranks of the Survey Department. As a further extension of the principle of providing a permanent staff in lieu of the temporary Survey Department it has been decided to train talátis as far as possible in surveying.

Commissioner of Survey and Settlement.

In the year 1863-64, two Commissioners of Survey and Settlement were appointed. The office, indeed, had been created at an earlier period in the progress of the survey, when Major Wingate was entrusted with the chief control of the department for the entire Presidency. On his retirement from the service in 1853 it was abolished, but was revived some years later by the appointment of Colonel Anderson as Commissioner of the Southern Division, and soon afterwards of Colonel Francis as Commissioner of the Northern Division of the Presidency. These officers were charged with the direction in chief of the survey operations and with the control of expenditure. The office of the Survey Commissioner is the channel of communication between the Superintendents and Government, more particularly as regards the settlement proposals sent up by the former. On the retirement of Colonel Francis in 1877 Colonel Anderson was placed in charge of both the Southern and Northern Divisions, and thereafter, though a nominal distinction between these two offices was for some years retained, they were in practice amalgamated into one. When, however, Colonel Anderson signified his intention to retire, an opportunity was taken to give effect to the wishes of the Secretary of State for India to appoint a member of the Civil Service to the office. This was done in 1881 by appointing Mr. Stewart to be Survey Commissioner of the whole Presidency, except Sind, the control of the survey of which province was given to the Commissioner in Sind. The control of the Mysore Survey, which hitherto had been under the Survey Commissioner of the Southern Division, who was also Inám Commissioner of that province, was withdrawn, owing to the assumption of the administration of the state by His Highness the Mahárája. On Mr. Stewart's retirement in 1891, he was succeeded by Mr. Ozanne, then Director, Land Records and Agriculture. In 1883 the department of agriculture had been created on the recommendation of the Famine Commission of 1878, and in 1884 that department was expanded into the department of Land Records and Agriculture with the special object of providing a permanent department to succeed the Survey Department, and to maintain its completed work and traditions. On the 1st April 1893, the offices of Director, Land Records and Agriculture, and Survey and Settlement Commissioner were amalgamated under the title of Survey Commissioner and Director, Land Records and Agriculture.

Principles of the Survey.

With respect to the general principles on which the survey operations were and are conducted, great importance is attached to the correct measurement and demarcation of individual holdings. The holding, or the area of land, no matter how small, entered in the records of a village as belonging to a registered occupant, is the theoretical unit of survey: the success of settlements on the "rayatwári" system depends in a very great degree on the correctness of the measurement of individual properties and on the facilities afforded for identifying them. To ensure these objects a constant check is kept on the work of the surveyor, who is required to have boundary marks erected at the corners and bends of each property as his work progresses, and is taught to regard this point of his duties as equally important with that of ascertaining areas. Great pains are taken in the construction of the village map, in which, besides the outline of each survey number (in which may be included several holdings or properties), the position and description of every boundary mark are shown by conventional signs. The means of identification are thus rendered complete. The small holdings, or *pot* numbers, are shown on a large scale plotted on separate sheets attached to the register of each village.

The "Survey Number."

The typical survey number is a field belonging to one man just large enough to be cultivated by him with one pair of oxen. It varies in area therefore with the character of the land and of the cultivation, but in practice it has not been possible to adhere to the type, and therefore arose the necessity of clubbing several properties to form the survey number. Theoretically, as has been stated, the survey unit is the area of land, however small, held by the registered occupant, but as the survey tenure places no restriction on sub-division of properties it became necessary to limit sub-division for convenience of revenue administration. In 1868 a limit was recognized by Government which varied in different tracts and in different classes of land. Sub-divisions below the limit are only permissible with the express sanction of the Survey Commissioner, which sanction is given only in special cases. Both the survey number and the survey unit, though the former is still the map unit, have thus lost their typical character, and there exist many rights in the lands of a survey number, and even of the recognized share of a survey number, which are not registered in the village accounts. The registration in these accounts is evidence of liability for the assessment, but not necessarily of proprietory right in the land. The desirability of making the survey record a record of rights as well as of liability is now recognized. It is certain that the survey record can be made to show actual rights to a greater extent than it does in fact show them; but on the other hand with the rules checking sub-division, many rights must remain, which

demand separate record, if such record is decided to be necessary. The question involved is now under consideration.

Survey at first for purely revenue purposes.

Up to the period (1867) when operations preparatory to the introduction of revised settlements were begun in the Poona and Násik Collectorates, it was never attempted to give anything of scientific precision to the survey, or to ensure accurate topographical results. The survey was instituted, as has been shown, for purely revenue purposes, and at an emergent crisis questions of geographical utility could be allowed no place in presence of the paramount consideration of how to afford the means of improving the land revenue administration, and ameliorating the condition of the agricultural classes in the shortest time, and at the least cost. In its early years the work was of the roughest description; but as it advanced, and a stricter supervision was exercised, some degree of excellence was attained even from a topographical point of view. At the present day the village map is constructed with much accuracy, and, besides presenting a thoroughly correct delineation of field boundaries (its chief object), shows village sites, roads, paths, tanks and the physical features of the country within its limits with considerable fidelity. In the districts in which the revenue survey followed the Imperial Topographical Survey, the character of the work was greatly improved by taking the great trigonometrical triangulation as a basis of survey, and adopting the system of village traversing. The plan of working in connection with the Imperial Topographical Survey proved successful.*

As revision operations by degrees became more and more restricted and partial, because the work of the old survey, as it progressed, naturally became more and more correct, at later revisions, that work was found good enough to be accepted as final, and the utilization of the work of the trigonometrical survey became unnecessary. One limitation was necessarily observed. A cadastral survey map for revenue purposes cannot in rugged country be also a correct topographical map.

System of classification of fields.

The system of classification adopted by Mr. Goldsmid and Lieutenant Wingate in Indápur detailed in the Rules known as the "Joint Rules" which accompanied the Joint Report of 1847 has been continued to the present time with such few modifications as subsequent experience showed to be desirable. Great care is taken to preserve uniformity in the standard of valuation among the different classing parties, as well as by constant tests on the part of the superintending officers to ensure the utmost correctness in the work performed by each classer. The classification is carried out field by field, and the system ensures that each holding shall be minutely examined, the results being so recorded as to enable the testing officer to see at once whether this has been done or not. So simple is the plan of classification, and so capable of being worked out by the native subordinates in conformity with certain established principles, that the average difference between the original operation and test does not exceed 5 or 7 pies in a maximum valuation of one rupee.

The experience gained in land valuation by degrees showed that the "Joint Rules" could be improved upon. The prime aim of that system of classification was to fix the relative valuation of the fields of a village and during the classification attention is concentrated on that object. It cannot be too strongly stated that measurement and classification have no direct bearing on the assessment or land tax ultimately fixed. But both measurement and classification are necessary preliminaries. They are requisite to ensure that the assessment should be fairly and evenly distributed. But here their use ceases. When the classification is done the Superintendent has before him a complete statement of the correct measurement of fields and of the relative valuation of each field expressed in annas. This notation was adopted simply for convenience, for the purpose would equally well have been served if the comparative valuation had been expressed in aliquot parts of 100 or any other similar manner. The adoption of the Re. 1 or 16 anna standard for the comparative valuation has resulted in some confusion in the minds of others than survey officers between the *relative* valuation or classification valuation and the *actual assessment*, which is fixed in the manner to be presently explained.

How sett'ement is effected.

A statement is then made out for each village showing the relative valuation in annas of each field. The sum of the field valuations represents then in annas or divided by 16, in rupees, what the assessment on the village would be if an assessment rate of Re. 1 were applied to a field valued at 16 annas. With this guide the Superintendent proceeds to work out his proposals for assessment. From his study of the tract, its varying conditions as to rainfall and communications, its old assessment, and the success or otherwise of its operation during the lease about to expire, he groups the villages into assessment groups, again with the prime object of ensuring proper distribution of the assessment to be fixed, and, taking into consideration the rates already fixed for surrounding tracts, he chooses a rate to be applied to the different groups which will discount the advantages or disadvantages of rainfall and communication of the groups as compared with each other, and which will at the

* In the province of Gujarát the utilization of the revenue survey maps has had a fair trial for some years past, and has been found of the greatest value. The maps of that province, prepared by Colonel Haig, R. E., with the use of the revenue survey maps, were exhibited at the Venice Geographical Congress, and obtained a gold medal: and the Government of India, while commenting upon this, remarked in their Resolution, Revenue and Agriculture Department, No. 168, dated 8th May 1882, as follows:—

"The Government of India is extremely glad to notice that in this survey Colonel Haig has been able to take much of his topographical details from the field surveys of the Bombay Revenue Survey. The economy of this is obvious, and the more recent work done by the Survey Settlement Department of that Presidency approaches in its accuracy a scientific survey."

CHARACTER OF LAND TENURES, &c.

same time when applied to the classification values bring in the revenue which in his opinion is a moderate assessment for the tract as a whole. Such rate is called the maximum rate. Up to the stage then of considering the classification valuation or *kacha akar* as it is technically called the operations are purely mechanical.

Improvements in valuation.

The "Joint Rules" made provision under which a field might be classed only up to 16 annas but showed how this maximum should be reduced, whether on account of character of the soil or its depth, or on account of faults, such as irregular sloping surface, excess of lime, or excess of surface moisture; but the "Joint Rules" did not fix similar guides for an increased valuation for advantages. It has been left to after-experience to improve the relative valuation in this direction. Corresponding with the "faults" whereby a valuation is decreased by degrees the classers have prescribed various "advantages" whereby the relative valuation is carried even beyond 16 annas. These are numerous; but one or two "advantages" may well be specified, from a description of which the character of this improvement in valuation may be rightly judged.

As excess of moisture from surface springs lowers the agricultural value of land, so the advantage of position raises this value. If, for instance, by its position a field derives a beneficial flooding from a river through a deposit of fine silt after a flood subsides, or if by position a field is near enough to a running stream to enable the cultivator to irrigate his land by erecting a well on the bank of the stream, an increment in classification is justified and indeed is called for to ensure a fair distribution of the assessment.

Another instance may be specified. The ordinary classification does not deal with any depth beyond three feet. As a rule that is sufficient for the approximate valuation required, but with this classification two fields may be valued alike which may be of diverse value in that in the one irrigation water may be found at a short depth and in the other at a very great depth; or in the one if wells are dug sweet water will be found and in the other salt water unfit for irrigation. Here again a differentiation is needed which was not provided for in the "Joint Rules."

The application of advantages is regulated by prescribed scales. Some of these advantages have been elaborated into large measures of extensive application, such as the "sub-soil water advantage," the "general position class." To correct a common misunderstanding it may be added that, whatever be the application of such methods of making the relative valuation more correct than it was, it can have no effect on the actual assessment imposed on a tract as a whole.

Settlement operations confined to one táluka at a time.

In the final operation of settlement it has always been the practice to include no larger area than a single táluka, and often only a small group of villages. This enables the officer proposing the settlement to give the most minute consideration to the condition and requirements of the tract of country with which he has to deal, and at the same time permits close scrutiny of his proposals by the reviewing authorities and by Government. A further advantage of this method of proceeding is, that it affords an opportunity of observing the working of a settlement on a small scale and judging of the suitability of rates applied to a limited extent of country before imposing them over a large area.

Term of Settlement.

The maximum term of settlement is thirty years, except in the province of Sind, where, owing to the still imperfect condition of irrigation, it has been thought desirable to adopt the shorter period of ten years.

Such are the general principles on which the revenue survey operations have been conducted in this Presidency the whole of which except Native States and alienated villages has now been brought under the survey settlement.

Most of the tributary Native States have either introduced a survey settlement following generally the lines of the British survey themselves, or with the aid of the British survey, and the majority of alienated villages have been similarly brought under the survey tenure.

Necessity of legalizing Survey operations.

These operations had been in progress many years before any question arose as to the expediency of giving them legal sanction. A revenue survey was a measure for which there were sufficient precedents, the whole of the Deccan having been surveyed by direction of the celebrated Malik Amber, and partial surveys having been executed under the Marátha Government. The survey now under description had, therefore, all the legality that consonance with previous usage could give it. But with the progress of British administration the value attached to rights in the land, and the inclination to resist any attempt to encroach on them, were constantly increasing. The survey itself had largely contributed to this result, and as it advanced, and valuable interests became affected by it, a disposition to question the legality of its proceedings began to be manifested. It became, therefore, imperatively necessary to confer on these proceedings a validity which could not be disputed. Accordingly in the year 1864 a bill was introduced in the Legislative Council "to provide for the survey, demarcation, assessment and administration of lands held under Government in the districts belonging to the Bombay Presidency, and for the registration of the rights and interests of the occupants of the same." This became law in the following year under the title of the "Bombay Survey and Settlement Act" (Act I of 1865). This Act confirmed previous settlements, empowered Government to "direct the extension of the survey to any part of the Presidency," defined the powers and duties of survey officers, provided for the demarcation of field and village boundaries, and the settlement by the survey officers of

Object of Act I of 1865 (Bombay).

CHARACTER OF LAND TENURES, &c.

disputes connected with them, and for the erection and repair of boundary marks. It empowered the officer in charge of a survey to assess Government and alienated lands, and required him, when making settlements of land revenue, to prepare a record showing all rights and interests in the land, and giving all other necessary information. It also provided for the administration of survey settlements, and empowered Government to direct a fresh survey, and to revise assessments on the expiration of a term of settlement. Shortly after the passing of the Act the settlement leases of the earliest settled tálukas began to fall in and in these field operations preliminary to the introduction of revision survey rates had to be undertaken. Indápur was the first táluka in which revision field operations were commenced. These operations were conducted on the same general principles which guided similar operations in the original survey and which are described above. The policy of this Government has from the beginning been opposed to entire re-measurement and re-classification but as in the tracts settled during the infancy of the department the work of the original survey was found to be too faulty and imperfect to be adopted as the basis for revision of rates, a general re-examination and revision of the old measurements and classification were found at first to be necessary. Gradually, however, as the tracts latterly dealt with by the original survey came up for revision the field work became more and more partial until in the tálukas last dealt with and in which the revision operations have now been completed the field work of the original survey was found to be sufficiently correct to be adopted for the purposes of revision settlements without any detailed test or re-examination. Advantage has been taken at revision to improve the old valuation with due caution that such improvement should not in any degree be a virtual tax on improvements carried out during the currency of a lease by the expenditure of private capital.

Land Revenue Code.

Until 1879 the law which governed these operations was contained in Act I of 1865. In this year Bombay Act I of 1865 was repealed and the provisions therein contained were re-enacted in the Bombay Land Revenue Code (Act V of 1879). In this Code, while all the provisions of Bombay Act I of 1865 relating to assessments in revision were re-enacted without any change, a new provision was inserted whereby a right was reserved to Government to take into consideration in fixing revised rates, certain classes of improvements effected by the owners or occupants from private capital. This provision was opposed to the fundamental principles of the Bombay settlement system and further as it was considered likely to discourage the application of private enterprise and capital to agriculture. Government in 1884 issued an executive order giving a general assurance that all improvements effected by occupants from private capital should be exempt from taxation in revision and further restricting the enhancements in revision settlements to the limits prescribed in the following rules:—

Limitation of enhancements and non-taxation of private improvements.

1st.—The increase of revenue in the case of a táluka or group of villages brought under the same maximum dry-crop rate shall not exceed 33 per cent.

2nd.—No increase exceeding 66 per cent. shall be imposed on a single village without the circumstances of the case being specially reported for the orders of Government.

3rd.—No increase exceeding 100 per cent. shall in like manner be imposed on an individual holding.

Amendment of Land Revenue Code.

Notwithstanding this assurance it was considered inadvisable to retain the objectionable provision above referred to in the statute book and it was accordingly amended by Act IV of 1886, whereby the following two principles have been laid down for the guidance of settlement officers in fixing rates in future revision settlements:—

(1) That assessments will be revised on consideration of the value of land and the profits of agriculture, and

(2) That assessments will not be increased at revision on account of increase to such value and profits due to improvements effected on any land during the currency of any previous settlement by or at the cost of the holder thereof.

Financial results of Revenue Survey.

Before proceeding to describe the several land tenures which obtain in different parts of the Presidency, it seems desirable to show approximately the financial results of the original and revision settlements introduced into the Presidency from the commencement of the Department up to the present time. These results are as follows:—

Original Settlement.	Revenue Realization prior to Settlements.	Revenue Realizations under Settlement.	Percentage Increase.
	Rs.	Rs.	
Kaira ...	15,71,029	14,07,321	—10·4
Surat ...	18,94,725	21,50,070	13·5
Broach ...	18,63,860	19,52,414	4·7
Thána ...	7,49,301	9,93,000	32·5
Ratnágiri ...	7,92,813	7,85,780	—0·9
Kánara ...	6,53,976	9,78,413	49·6
Total ...	75,25,704	82,66,998	9·9

	Revenue Realizations prior to Settlement.	Revenue Realizations under Settlement.	Percentage Increase.
	Rs.	Rs.	
Revision Settlement.			
Khándesh (partly revised) ...	15,41,010	20,04,201	30·0
Násik (do.) ...	7,20,615	9,72,432	34·9
Ahmednagar (completed) ...	11,76,900	15,12,309	28·5
Poona (nearly completed) ...	9,15,221	12,06,091	31·7
Sholápur (do.) ...	6,66,554	9,12,837	36·9
Sátára (partly revised) ...	5,83,858	7,80,484	33·7
Belgaum (completed) ...	11,04,823	14,36,737	29·9
Dhárwár (do.) ...	13,00,701	18,87,818	45·1
Bijápur (do.) ...	8,59,355	10,79,439	26·0
Kolába (partly revised) ...	1,14,010	1,56,904	37·6
Ahmedábád (completed) ...	8,74,265	10,99,018	25·7
Panch Mahals (partly revised) ...	1,10,427	1,11,934	1·4
Karáchi ...	6,45,807	10,60,541	64·2
Hyderabád ...	10,56,861	18,15,578	71·8
Shikárpur ...	15,30,904	30,33,105	98·1
Upper Sind Frontier ...	5,89,925	8,05,020	49·1
Total ...	1,37,38,236	1,96,73,447	44·6
Grand Total ...	2,12,63,940	2,81,40,445	32·3

Summary.

Realizations prior to Settlement.	Realizations under Settlement.	Amount of Increase.	Total Cost.
Rs.	Rs.	Rs.	Rs.
2,12,63,940	2,81,40,445	68,76,505	2,73,36,798

It is necessary to explain that the original settlements in Ratnágiri and Kánara are final settlements under Section 1 Act IV of 1886, in that no general revaluation of land will be permissible on the expiry of current leases: while in the other districts of Kaira, Surat, Broach and Thána under original settlement, the relative valuation of lands is liable to modification and improvement on fixed principles on the termination of existing guarantees. Further it must be understood that the figures in the above statement are for the various districts as they existed at the time of settlement. The extensive territorial re-arrangements carried out about the year 1867-68 render it impossible to show the results for the different collectorates as now organised without much labour.

Definition of the Survey Tenure.

The most important feature of the Bombay Survey Act (now embodied in the Bombay Land Revenue Code Act V of 1879), as it affects interests in the land, is the definition of the right of occupancy. This right is declared to be simply conditional on the payment of the Government demand, and to be a transferable and heritable property continuable without question at the expiration of a settlement lease, on the occupant's consenting to the revised rate. The right of occupancy, which has thus received legal recognition and sanction, is commonly known as "the survey tenure"; and though the complete security of the title it confers has in most cases superseded the ordinary tenures previously existing, these may here be briefly described for the purpose of comparing them with the new tenure obtaining in all settled districts.

Tenures previously existing.

Deccan.

The Mirás Tenure.

Previous to the survey settlement all land in the Deccan, not alienated, was held by two classes of occupants. The first was the mirásdár, or tenant with right of occupancy; the second was the upri, or tenant-at-will. The mirásdár was the freeman of the village, his land was heritable and transferable, and he held at a fixed assessment, though under the Marátha Government he was liable to demands on account of extra cess. In former times the name of mirásdár carried some degree of distinction with it, and the position was regarded as an enviable one. It could be acquired by simply consenting to pay the Government demand on the entire area in occupation, whether cultivated or not—an essential condition of the mirás tenure—and by the payment of a fine. The most remarkable incident of the tenure was that it was not subject to forfeiture for default of revenue payment or even for the abandonment of his village by the mirásdár, unless he was absent for a longer period than thirty years. If in this respect, however, he enjoyed an advantage unknown to the survey tenure, there were counterbalancing circumstances in his position which rendered it greatly inferior to that of the occupant under the survey settlement. For he was not only liable to extra and arbitrary impositions, but was required to make good the claims of the Government on defaulting brother mirásdárs.

The Upri Tenure.

The "upri" had no status in the village in which, as the name imports, he was regarded as a stranger. He cultivated the common lands of the village or those of absentee

CHARACTER OF LAND TENURES, &c.

mirásdárs, but had no proprietary interest of any kind in either. On the other hand, he could not be called on to pay revenue on any larger area than that actually under crop, nor be held liable for the default of other cultivators. In the case of the "upri," then, fixity of tenure has been substituted for tenancy-at-will, but coupled with the greater responsibility necessarily attaching to a settlement leased in definite areas.

Comparison of these with the Survey tenure.

To recapitulate: the advantages enjoyed by the occupant of land under the survey settlement are—

1st.—A separate settlement with Government.

2nd.—A lease guaranteed for thirty years or other fixed period, terminable by him as to the whole or part of his holding at the expiration of each year, but by Government only on his failure to pay the assessment.

3rd.—His occupancy is heritable and transferable by gift, sale, or mortgage, without other restriction than the requirement to give notice to the authorities.

4th.—He is at liberty to resign his entire occupancy or any part thereof which is separately recognized in the survey and village records in any year, provided notice be given by a fixed date. If waste land be available, he may enlarge his holding at pleasure on application to the district officials.

5th.—He may sublet his lands, and Government will assist him, under certain limitations, in recovering rents from his tenants.

6th.—His holding cannot be encroached on by his neighbour, every recognized sub-division of it being clearly defined by boundary marks and susceptible of immediate identification by means of the village maps and registers. Further, the fact of his possession of any field or sub-division of it can be traced without difficulty in the village records year by year up to the date of the introduction of the first survey settlement. Thus the chances of dispute and litigation are entirely removed, or reduced to a minimum.

7th.—The right of the occupant to a renewal of the lease on the expiration of the term, at revised rates fixed not with reference to any improvements made by the occupant from private capital and resources during the currency of any settlement under Bombay Act I of 1865, or V of 1879, but with reference to general considerations of the increased value of the land, whether as to soil or situation, prices of produce, or facilities of communication.

Subject, then, to the payment of the Government assessment, the occupant of land under the survey tenure may be said to enjoy every right of property that he can desire, with the advantage of possessing a title the most simple and complete that can be imagined. The chief principles of the tenure thus described have been also adopted in Berár, and Mysore.

Gujarát.

The tálukdári Tenure.

The tálukdári is one of the most important tenures in Gujarát. It prevails, principally, in the western districts of Ahmedábád adjoining Káthiáwár. The tálukdári districts proper are: Viramgám, Dholka, Dhandhuka, Sanand, and Gogha. The area under this tenure is about 1,466 square miles. (There are also tálukdári estates in the Broach Collectorate and Panch Maháls, aggregating 256 square miles in area.) The estates of the Náiks in the Dohad Táluka of the Panch Maháls, of an area of 90 square miles, are also held on what is practically the tálukdári tenure. It has, however, been ruled in their case that the Náiks cannot be considered absolute proprietors of the lands.

Tálukdárs defined.

The tálukdárs are a yeomanry mostly of pure Rájput race, descended from Hindu chiefs of ancient lineage. Some are of mixed Rájput and Koli race and some are Musalmáns. The tálukdári districts comprise numerous estates, great and small (the successive partitions of generations), and each property now consists of one, two or more villages. The Rájputs on each property number from about 50 to 200, the steady growth of branches and offshoots of the original single tree. The tálukdárs are the Chiefs of their people—gentlemen who consider all manual labour degrading, and live on the hereditary share of the produce of the lands cultivated by their tenants-at-will.

Position of a Tálukdár under Act VI of 1862.

The tálukdárs of the Ahmedábád District according to Bombay Act VI of 1862 are absolute proprietors of their respective estates, subject to the payment of the *jama* or Government demand, which is fixed for a term of years at the expiry of which it is subject to revision. Each principal sharer (muksh bhágdár) has his own portion of the village site in which those families who cultivate his lands reside. He is competent to give in *pasaita* or mortgage for the term of his life or with the sanction of the Tálukdári Settlement Officer for any term his own lands, and he allows village servants the grain produce of certain fields unless as in some cases they receive cash emoluments. He is responsible for his quota of the *jama* but has no authority to alienate permanently any part of his estate without the sanction of Government, under section 31 (2), Act VI of 1888. The tenure in Broach and Kaira is very much the same as in Ahmedábád, except that the *jama* is *udhad* or fixed and is not liable to periodical revision.

CHARACTER OF LAND TENURES, &c.

System under which Government demand is levied.

Under the system which has been introduced into the Dholka Táluka at its Revision Settlement in 1893, and which is about to be introduced into the other tálukás of the Ahmedábád District, the only Government demand from the tálukdári estates as such is that for the *jama* on *darbári* lands, *i.e.* lands not alienated but paying rent to the dárbár or tálukdár. This is paid in cash by fixed instalments. As it was found that the Civil Court would not assist tálukdárs in recovering *sanadi salami* (or quit-rent on lands alienated from the dárbár) from their alienees this item of quit-rent no longer forms part of the Government demand and lands formally recognized by Government as alienated are entirely exempt from *jama*. All lands which have not been so recognized are treated as darbári and are liable to assessment to *jama* which is paid by the tálukdár.

The local fund cess which is levied under Act III of 1869 is now calculated at the rate of one anna in every rupee of the survey assessment of the estate, not as formerly at an anna in every rupee of the *jama*. This is paid primarily by the tálukdár who is entitled to recover from his tenants such portion of it as is due for lands held by them.

If a shareholder fails to pay his *jama* his share is generally attached and managed by Government who satisfy the demand for *jama* and pay the balance of the income to the defaulter after deducting a sum for expenses of management. The old system of appointing one of the sharers as *wahiwatdár* or manager has altogether disappeared. In common with all other holders of land the tálukdárs are responsible for the preservation of boundary marks on their estates, and are subject to the provisions of the Land Revenue Code, 1879, in this as in other matters.

Tálukdári Estates in the Panch Máhals.

In the Panch Máhals the estates of the tálukdárs of the Godhra and Dohad Tálukás have been surveyed, classed and assessed according to the survey principles. The *jama* they have to pay has been fixed in reference to the survey assessment and is liable to vary at each revision of rates.

The estates of the Kálol, Hálol and Jhálod Tálukás have also been surveyed and classed but, owing to the destruction by the Surat fire of 1887 of the survey records, not assessed. In their case also the present *jama* paid to Government is liable to enhancement at future settlements.

In consideration of the prospective enhancements of *jama* Government have foregone all claim to *judi* (quit-rent) on alienations in the tálukdári estates of the western Maháls. A four-anna settlement has been imposed on the alienations claimed by the leaseholder Náiks of Dohad. In similar estates in Jhálod the question is still undecided. The above concession was accompanied by a prohibition of all future alienations of whatever kind.

The local fund cess of one anna in the rupee is levied on the full assessment of tálukdári villages in all the tálukás except Godhra, where in the case of Mehlol it is levied under special orders on the *jama* only and in the rest of the villages on the lands cultivated.

Extent of Government interference in the management of the Tálukdári villages.

Except under the circumstances alluded to below Government does not interfere in the management of tálukdári villages, save that it provides under Act VI of 1888 for the entertainment at the tálukdár's expense of what it considers an adequate police establishment, and under the same Act prohibits, without the sanction of the Governor in Council, the permanent alienation of any lands forming part of a tálukdári estate. A tálukdári estate may be taken over and managed by Government under Act VI of 1888 in any of the following circumstances :—

(1) When there is a dispute among the sharers or reason to apprehend danger to the peace of the country or injury to the well-being of the inferior holders.

(2) When partition is being effected, pending such partition.

(3) On the application of the tálukdár himself.

A tálukdári estate is also liable to attachment and management under the provisions of the Land Revenue Code.

There are two systems in force for the levy of rent by the tálukdár from his tenants. The oldest and most common is that of *bhágbatai* or crop share. According to this system the partition of produce between landlord and tenant is determined by the *dháro* or village custom, which has in many cases been reduced to writing. The value of the crop is estimated either by calculation from the ascertained value of test areas while it is still standing (*dhal*=appraisement) or by actual weighment after the crop has been removed to the grain-yard, where the produce of each tenant's holding is kept in a separate heap until its value has been ascertained. A certain proportion is deducted from the whole for seed and the perquisites of various village servants and the remainder is divided in the proportions sanctioned by the custom of the village between the tálukdár and his tenants. The average share taken by the tálukdár has been assumed to be 50 per cent. of common grains, 40 per cent. of wheat and 48 per cent. of cotton.

The second system is that known as *bighoti*, and in tálukdári villages there are two varieties of it. *Bighoti* means rate per acre or more strictly, per *bigha*, but the rate may be fixed with reference either to the capabilities of the soil, as in Government villages, or to the crop which is grown on it. The rates fixed vary in different parts of the district. In the

Ahmedábád District the bighoti system has been introduced principally in those villages which have at one time or another been under Government management, but in Kaira and Broach it is in force in all the villages held on tálukdári tenure.

CHARACTER OF LAND TENURES, &c.

The *vánta* (divided) tenure (in contradistinction to *talpat*, paying full assessment) prevails more or less in certain villages all over Gujarát north of the river Tápti. When the Muhammadans invaded Gujarát they found the country partitioned out into estates of large or small Chiefs, whom they forcibly deprived of all but one-fourth of their possessions, and the portion thus left took the name of *vánta* (divided). In some cases (where it is supposed there was no opposition to this spoliation) the *vánta* was granted free, and where the contrary was the case it was burdened with a *salámi* or quit-rent, which remains to this day; but there is no record, nor even tradition, to show on what principle quit-rents were imposed. No holder of *vánta* lands has any documentary title, and the limits of the same are determined from the first trustworthy record prepared under British rule, as contained in the village accounts. Certain *vánta* estates pay *tribute* in the shape of an *udhad jama* or are in some cases rent-free and subject to the summary settlement cess only. Isolated *vánta* lands may be rent-free or subject to quit-rent. The lands held on this tenure are mostly in the hands of Rájput Thákors of one class or other. There are a few villages to be found in which the lands are divided into two portions, called respectively *vánta* and *talpat*, each defined by some fixed boundary, such as a river, a road, or a stream, the village site itself being also divided. The *vánta* portion is held either rent-free or subject to a *salámi* or quit-rent.

Vánta Tenure.

Origin of the tenure.

Senja—undivided, in contradistinction to *narvádári*, *bhágdári* and other divided villages—is the ordinary *rayatwári* or Government tenure of the province, the assessment being placed on each revenue survey number, and the settlement made by Government directly with the occupant.

The peculiarity of the *narvádári* and *bhágdári* tenures is that they involve joint responsibility for the payment of the Government revenue. The first-named tenure prevails chiefly in the district of Kaira, a few villages being also found in Ahmedábád and Surat, while the latter is confined to the Broach Collectorate. There is one *khálsa* or Government village in the Panch Maháls which is held and has been settled on the *bhágdári* tenure.

Narvádári and Bhágdári Tenures.

The lands of *narva* villages consist of certain main divisions (*muksh bhág*), containing sub-shares (*peta bhág*), which, in their turn, are up to a fixed limit divided into fractional parts. The head of each estate or main division is called a *muksh bhágdár*, and is responsible for the payment to Government of the assessment leviable on the whole share. Similarly the holders of sub-shares of a main division (the *petá bhágdárs*) are collectively responsible for that portion of the assessment which has been allotted to their several sub-shares. All sub-sharers have equal rights, are called *pátidárs*, and are descendants of the old proprietary cultivators. The shares or divisions, great and small, are sometimes of equal and sometimes of unequal amounts, but always in well-known and recognized proportion, so that the assessment due by the whole village is exactly apportioned among them. As the *narvádari* and *bhágdári* tenures had been acknowledged and preserved under Act V of 1862, special arrangements were required for the settlement of villages in which these tenures existed. The register of existing shares was accepted, and the lump sum due from the village, with the exception of the assessment on the common (*majmun*) land, was apportioned among the different shareholders according to the values entered in the register of the *phálavni* or rate of apportionment.

The Narvádári Tenure.

It is seldom that the whole of the land of a *narva* village is included in the *narva*. There is almost always a portion of common (*majmun*) land. This land is in some cases in possession of the sharers, not as *narva* land but as *majmun* (it is then called *bhág majmun*), in which case they are responsible for its assessment according to their occupancy. Where not so, it is managed like that of an ordinary *senja*, or undivided village, quite distinct from the *narva*.

Settlement of common (Majmun) Land.

The *narva* villages are not all constituted precisely alike: there is for example—

Varieties of Narva Tenure.

(1) The perfect *pátidári*, in which all the lands are held in severalty by different proprietors, each person managing his own land and paying his fixed share of the assessment, the whole being jointly responsible if one sharer cannot fulfil his engagements. This is the ordinary *narvádári* and *bhágdári* tenure which exists in a large majority of the villages.

(2) The imperfect *pátidári*, in which part of the land is held in common and part in severalty, the profits from the common land being first appropriated to payment of the Government revenue made up according to rate on the several holdings. The peculiarities of each have been upheld by the new settlement.

Under the survey system many *narva* village communities have been allowed, at their own wish, to divide their respective responsibilities for the revenue, according to the assessment of their respective shares, instead of according to the old symbolical division (*phálavni*) of the lump assessment responsibility originally entered in the register of the *narva*.

In *narvádári* and *bhágdári* villages all persons cultivating *narva* or *bhágdári* lands, whatever rights they may have, are tenants, not of Government, but of the *bhágdárs*, who are alone responsible for the revenue. They are—

Position of tenants in Narva and in Bhágdári Villages.

CHARACTER OF LAND TENURES, &c.

(1) Tenants-at-will, holding at the pleasure of the *narvádárs*, who can eject them, or increase their rents at discretion.

(2) Customary tenants, who cannot be ejected so long as they pay the customary rental which is either a fixed share of the produce or more commonly the customary *bighoti* rates, which are generally recorded in the village books.

Soon after the introduction of the survey settlement a "record" is prepared, setting forth the respective rights of the superior and inferior holders. These records have not, however, the force of judicial decisions.

Difference between the Bhágdári and Narvádári Tenures.

The *bhágdári* tenure differs from the *narvádári* in one important particular only, *viz.*, that in the former there was always a fixed *bighoti* assessment on each field; and although the assessment of each share (*bhág*) was not the aggregate of the assessments of the several fields which the share comprised, it was the amount of the total field assessment of all *bhágdári* lands, divided according to the register (*phalavni*). In the *narvádári* tenure, on the other hand, there was never a separate field assessment, the revenue being fixed in the lump. It will be seen that, although the *narva* and *bhágdári* tenures have been preserved in their integrity by the survey, yet the amount of revenue to be paid in the lump has been ascertained by a field assessment: so in the event of a contingency arising, such as is contemplated by clause 2 of section 8 of Regulation XVII of 1827 (reversion to Government on account of non-payment of revenue), the survey rates could at once be introduced in exactly the same way as in ordinary Government (*senja*) villages.

Mehwási Tenure.

In some parts of Gujarát, *viz.*, on the banks of the river Máhi and in the Paránti Táluka and Modása Mahál of the Ahmedábád Collectorate, certain villages are held on what is known as the *mehwási* tenure, and pay the revenue in a lump sum, the amount of which has hitherto fluctuated at the discretion of the Collector. These villages are held by the descendants of Mehwási Koli or Rájput Chiefs, once great free-booters and the terror of the country. The principal shareholders are generally *Thákors*, and are called *muksh bhágdárs* the sub-sharers being known as *peta bhágdárs* as in villages held on the *narva* tenure. Most of these villages were originally held rent-free, or subject to a small tribute. Conditions were generally attached to the tenure, such as the police management of a small portion of the country, the keeping open of certain roads infested by robbers, or forbearance from plundering on the part of the holders and their fraternity. Under British rule and a better system of police these conditions are, of course, unnecessary, and the villages are held subject to the payment of the *jama* only. Of late years, *talátis* (village accountants) have been introduced into some attached mehwási villages, and the *jama* collected from the shareholders, who sublet their lands either on cash or grain rents. The steps which were taken in 1877 to introduce the revenue survey into these villages were rendered futile by the destruction by fire of the survey records at Surat in 1887, but the villages have recently been resurveyed and they are to be treated in the same way as Tálukdári villages as regards the imposition and levy of a *jama* which will be proportioned to their survey assessment and will be liable to revision at the end of a term of years.

In the Kálol Táluka the headmen of 23 villages with their sharers under the name of Mehwási *patels* claim certain privileges amounting to a distinct tenure. It was decided (1887) that this tenure did not correspond exactly with the *narvádári* or *bhágdári*, but more nearly approached that of the Tálukdári villages in the Ahmedábád Collectorate, and that the villages undoubtedly fell within the category of those described in section 8 of Regulation XVII of 1827 as held by shareholders settling hereditarily, and, under certain terms, were at the same time offered to the *patels*, but it was not until 1887 that a settlement was arrived at. The tenure has now been recognized in 21 villages, and its more important conditions are that the *patels* have a lien on their waste lands on condition that they limit their demands on their tenants to the survey assessments and pay as *jama* certain proportions of the assessments of the cultivated lands held by themselves and their tenants. The proportion varies according to the area of forests reserved in the villages, and the forest rights of Government in the waste lands have been maintained though liberal privileges have been conceded. The *patels* (headmen) employ their own *talátis* (accountants), but are under obligation to keep accounts and furnish statistics.

Máleki Tenure.

In the Thásra Táluka of the Kaira Collectorate is a clan of Muhammadan yeomen known as the "Máleks," who hold their villages on a special tenure, the origin of which is as follows:—

Nearly four centuries ago Mahmud Begada, Sultán of Ahmedábád, granted as a reward for military services, at the taking of Pávágad (a celebrated hill-fort near Chámpáner), 12 villages to certain Musalmán families, known as Málekjádás. On the introduction of British rule these 12 villages had, by the founding of new hamlets, increased to 17. They are now 27 in number, into all of which the new settlement has been introduced. These villages seem to have been originally rent-free, and so continued for 2½ centuries. About 150 years ago the Máleks were compelled by the Maráthás to pay a fixed tribute (*udhad jamábándi*) on their villages. Soon after (about 1769) the *Mulukgiri* army of the Gáikwár levied an additional tribute, called *ghásdána*, which was continued till the introduction of British rule, when this exaction was commuted, and paid by the British Government to that of the Gáikwár. Besides this, several Máleki villages were subjected to a tribute payable to the Bábi of Bálásinor, which was also commuted and paid by the British Govern-

ment to the Bábi. To meet the Marátha tribute (*udhad jamábandi*) demand the Máleks levied from their cultivators a poll-tax (*karam vero*) and a tax in kind (*waje*) amounting to one-third of the produce of the land.

Present Settlement.

In 1865 the Máleki villages were measured and valued by the revenue survey, and a settlement introduced, which has since been confirmed by the grant of sanads to the different Máleks.

Udhad Jamábandi Tenure.

In some whole villages, or parts of villages, *vánta* lands entered as *sarkári* or Government are held on *udhad jamábandi* tenure, which means that they are liable to a fixed cess (*jamá*) only, such *jama* remaining intact even at a general revision of assessment, there being a "right on the part of the occupants in limitation of the right of Government in consequence of a specific limit to the assessment having been established and preserved." Other villages, not *vánta*, are also held on this tenure. These villages have been surveyed in the lump only, and the fixed assessment has remained intact. A few, however, in the Kaira Collectorate, which have been under the management of the Collector and of the Tálukdári Settlement Officer as embarrassed estates, have had and are now having their lands surveyed and classed in detail, with a view to the survey settlement being introduced.

Sarákati Tenure.

A few villages in different parts of the province are held on what is called *sarákati* tenure. The term *sarákati* is derived from the Arabic, meaning a partner. In these villages Government is entitled to a certain proportion of revenue, and the holders to the balance; the proportion of the respective shares varies from 10 to 6 annas. It is not unlike what the Máleki tenure has now merged into, the holders having in both cases the right of occupying and subletting all their lands subject to the payment of the fixed proportion of revenue due to Government.

Alienated Lands.

The wholly or partially alienated lands in Gujarát are extensive, and of various denominations, the principal being—

Chákariat of all denominations (lands held for service);

Pasaita (land given in charity or to artificers, Bháts, Chárans or others);

Hária (the price of blood or reward for defence);

Wasifa (an alienation to religious persons of the faith of Islám).

These may be *nakra* (rent-free) or *salámia* (liable to quit-rent). These again may be *vechánia* (sold) or *garánia* (mortgaged), and are then described and known as *pasaita-salámia, pasaita-vechán-salámia, pasaita-vechánia-nakra, haria-garánia-salámia,* and so on.

All the lands, with the exception of *chákariat*, are now *sanadia* or held by sanads under the Summary Settlement Act, and are entered in the accounts under the one distinctive title of *ját inám sanadia*, the old denominations of *pasaita vechánia, garánia nakra,* and so on, not being retained. Lands granted to temples and religious corporations as distinct from individuals (called *devasthán* or *dharmádáya*) are also excluded from those under the title of *ját inám sanadia*. Sanads have not been issued for *chákariat* lands, including those held by district officers who have elected to do service for them.

TENURES IN THE KONKAN.

I.—Northern Konkan.

The Survey Tenure.

Land in the Thána Collectorate is held almost wholly on the survey tenure, the occupier having in general had no right so good as that conferred by the survey. There is no *mirás* property so called, but a considerable quantity of land was previously called *suti*, and held on a tenure analogous to that of *mirás*, but not so advantageous. This tenure has, however, been merged in the survey tenure which is in fact scarcely, if at all, less valuable than the old *mirás*.

Other Tenures.

The exceptions to the survey tenure in the Northern Konkan are as follows:—

1st.—A considerable number of *khoti* villages, chiefly in the Sálsette Táluka.

2nd.—A number of *izáfat* villages scattered over the different tálukas.

3rd.—Lands known as *shilotri* lying either along the coast or along the larger creeks.

There are, of course, a number of villages held in ordinary *inám*, and also the usual service *vatans*, but these differ in no way from the same tenures in the rest of the Presidency.

Khoti Tenure.

It is necessary to distinguish clearly between the *khots* of the Northern and those of the Southern Konkan. Those of the Northern Konkan are, in fact, leaseholders (though more commonly called farmers) of a certain number of villages, several being generally held in one family, and they obtained their land in all cases from the British Government, though at an early period. They have never claimed to be the proprietors of the soil, and the title and rights of those who hold land under them are in no way affected by the fact of these *khots* having their villages in lease. Most of the *khoti* villages have been measured, and the survey settlement introduced, and, therefore, in all such villages the survey tenure is in force. The former rights of the tenants, which are distinguished as *suti* (described above) and *chikli* or *gatkuli* are only in force now in the few villages not yet surveyed.

Izáfat Tenure.

The *Izáfat* tenure is a variety of service tenure, of hereditary district officers chiefly Deshmukhs and Deshpándis. At the introduction of British rule there were 124 villages under this tenure. They were resumed and managed by Government as the duties of the hereditary district officers had become useless during the continuance of the Marátha farming

CHARACTER OF LAND TENURES, &c.

system. When it was decided to restore the villages to their former holders, most declined to resume charge and the number remaining on *Izáfat* tenure fell to 16. When the *Izáfat* villages of the Panvel Táluka were surveyed it was decided that the holders were liable to pay the full survey assessment, but as no assessment was placed on any but rice land, the holder enjoyed under the thirty years' lease the profits of *warkas* (dry crop) cultivation. In the villages of other tálukás the survey tenure was introduced, but the Izáfatdár was allowed 10 per cent. of the revenue as remuneration for the collection of the assessment. The lease of the Panvel Izáfat villages having expired, it is now under consideration whether a similar remuneration should not be allowed to the holders, the full assessment on *warkas* as well as rice being levied. *Izáfat* villages are in fact now held on the survey tenure, the Izáfatdárs holding a position analogous to that of superior holders.

Shilotri Tenure.

Shilotri lands are lands that have been embanked and reclaimed from the sea, and the permanence of which is dependent on the embankments being kept up. These reclamations are commonly known as *khárs*. The tenure is of three varieties—1st, *shilotri* proper under which the *khár* belongs to the person by whom it was reclaimed or his representatives. The *shilotars* are considered to have a proprietary right, they let out these lands at will, and according to old custom levy a maund of rice per *bigha*, in addition to the assessment, for the repair of the outer embankments. These lands were surveyed and re-assessed at the survey in the same way as Government lands. The second class of *shilotri* lands is that in which either Government reclaimed the *khárs*, or became possessed of them by lapse. The cultivators of these *khárs* hold their land just as other survey tenants do; but an extra assessment, which is supposed to represent the *shilotri maund* mentioned above, is appropriated to the repairs of the embankments. The third class of *shilotri* lands is that in which reclamations were made by associations of rayats on special terms made with Government. This variety of tenure is distinguished from the shilotri tenure proper by the term *kularg*. In *kularg khárs* the tenants carry out repairs of embankments jointly, each having a share of the land and assessment recorded against his name.

II.—Southern Konkan.

The Khoti Tenures.

In the Kolába (excluding the tálukas of Karjat and Panvel which have recently been transferred from Thána to Kolába and which none the less still belong to what is called the Northern Konkan) and Ratnágiri Collectorates the survey tenure is quite the exception. It prevails generally in the two northern tálukás of Kolába, but in the remainder of that district and in the whole of Ratnágiri it is found only in those villages which happen to be Government property (*khálsa*) and in surveyed *khoti* villages where there are *dhára* lands and *kowli* lands held on new leases. In the northern part of Kolába there are a few villages held on the *izáfat* tenure already described. Otherwise the *khoti* tenure is the prevailing one, though there are a number of proprietary rights in all these villages independent of, and in some cases older than, those of the *khots*.

Its chief characteristics.

With regard to the *khoti* tenure, its principal features are undisputed, or nearly so. Though most people believe the khots to have been at first, and not more than about 350 years ago, simply farmers holding on leases for the improvement of the country, yet it is now generally conceded that they must be considered as limited proprietors. Theoretically their position is very much that of Bengal zamindárs without the permanent settlement, for it has never been doubted that they are liable to increase of assessment. But owing to the smallness of their estates and in many cases to the high assessment they have to pay, and to the fact that their villages having descended in most cases by the Hindu law of inheritance are held by a large number of co-sharers, it is much safer to ignore the superficial resemblance which exists between them and the zamindárs. The chief undisputed points of this tenure are as follows:—

1st.—The right to hold their villages on payment in instalments, of the lump assessment fixed on all the village lands by the Settlement Department, provided the annual agreement (*kabuláyat*) be given to Government by members of the *khoti vatan* authorized to give it. On failure of payment, or if the *kabuláyat* be not given, the village is liable to attachment, but is restored on payment of any loss that may have been caused to Government by the default of the *khots* in addition to the fixed assessment.

2nd.—The right to lease land in which there are no rights of permanent occupancy at whatever rents they may arrange with their tenants.

3rd.—The right to all lands which may lapse owing to the absence or failure (either temporary or permanent) of permanent occupants.

4th.—It is the duty of the *khots* to collect the assessment from all permanent occupants (*dhárekaris*) without remuneration, but they receive assistance from Government as superior holders.

And origin.

The *khoti* tenure is said to have originated in the Subhedári of Dábhol, which extended from the Váshishti to the Devgad River, and which is nearly coterminous with the district occupied by the Chitpávan Bráhmans. Certainly south of the Devgad River, though *khots* are still found, their powers are allowed to be much less than those of the *khots* farther north.

CHARACTER OF LAND TENURES, &c.

The Dhárekari Tenure.

The other tenures in the Southern Konkan are, first, the *dhárekari*, which differs but little from the *miráś* tenure of the Deccan. The *dhárekaris* pay only the survey assessment which is liable to increase only at periodical revisions of rates ordered by Government, and are now in no respect dependent on the *khots*, though formerly no doubt they paid various cesses to them. They have the same rights of alienation as *mirásdárs*, and wherever the survey settlement has taken place the *dhára* tenure has been merged into the survey tenure.

Vatandár Kuls.

In the Khed and Dápoli Tálukás of the Ratnágiri Collectorate there are a number of proprietors under the names of *dupatkari*, *pavani dupatkari*, and *daspatkari*, which are known under the Khoti Act as *quasi dhárekaris*. These, however, differ only from the *dhárekaris* in that their payments to the *khot*, though fixed, are somewhat higher than the survey assessment, their rights in their land being in all respects similar to those of the *dhárekaris*.

There are also a certain number of occupants generally known as *vatandár kuls*, or under the Khoti Act as occupancy tenants, who, it is acknowledged, cannot be dispossessed by the *khots*, and whose rights are heritable, but not transferable, unless they can prove that such right of transfer has been exercised independently of the consent of the *khot* within the thirty years ending with the revenue year 1864-65. They continue to hold their lands conditionally on the payment of the rent from time to time lawfully due by them to the *khot*. These are supposed to be the descendants of those cultivators who held land in the villages before the *khots* obtained their grants. The remainder of the cultivators where the survey has not been introduced held their lands on payment of a proportion of the crop, the proportion being ½, ⅓, or ¼, according to the custom of the village and the nature of the crop. Under the Khoti Act all these tenants other than occupancy tenants continue to hold their lands subject to such terms and conditions as are agreed upon between the *khot* and themselves, and in the absence of specific agreement they pay rent to the *khot* at the same rates as are paid by occupancy tenants in that village.

Arrangements under Survey-Settlement.

The survey settlement has substituted for this proportionate payment in kind a fixed cash assessment as the Government share, and under the Khoti Act the rent payable to the *khot* by privileged occupants is as follows :—

1. By a *dhárekari* the survey assessment of his land.

2. By a *quasi-dhárekari* the survey assessment of his land, and, in addition thereto, amounts of grain or money respectively set forth in the schedule annexed to the Khoti Act.

3. By an occupancy tenant such fixed amount, whether in money or in kind, as may have been agreed upon between the Khot and the said tenant, or on the expiry of the term for which such agreement shall have been made, or, if no such agreement have been made, such fixed share of the gross annual produce, not exceeding one-half in the case of rice land, nor one-third in the case of varkas land, and such share, if any, of the produce of the fruit-trees on the said tenants' lands as shall be determined to be the customary amount hitherto paid by the occupancy tenants in that village.

Reclamation leases.

Considerable tracts of land on the coast or along the sides of the larger creeks have been granted on reclamation leases. These lands were formerly either salt marsh land or sandy shore above high-water mark, the former being made into rice fields and the latter into cocoanut gardens. The leases in most cases specify that the land is held on special rates only until the survey shall be introduced. After the introduction of the survey such lands are, therefore, held on the ordinary survey tenure.

Inam Tenures :—For all practical purposes the tenures on which alienated holdings are now continued may be reduced to the following four principal classes :—

(1.) Political. (2.) Service. (3.) Religious. (4.) Personal.

Political.

Under the head of "political tenure" are included political pensions and what are known as *jághirs* and *saranjáms*. Grants of this description are to be found almost exclusively in the Collectorates of the Southern Division and in the Násik and Khándesh Districts of the Central Division. *Jághir* and *saranjám*, though the former is a term of Muhammadan and the latter of Marátha origin, are understood to have similar characteristics, having been originally grants by the State for the performance of civil or military duties, or for the maintenance of the personal dignity of nobles and high officials. Under the British Government, however, no such distinctions are preserved; and the *jághirs* and *saranjáms* now in existence have, with some exceptions, where service is commuted into money payments, no condition of service attached to them, but are continued hereditarily or for one or more generations on political considerations alone.

Service Tenure.

The assignments of land or of money, held on what is known as "service tenure", are grants which impose duties on the holders. Such grants were originally made with a view to ensure the performance of certain services in each district and for each village. As no change has been introduced in the constitution of village communities, village service is still rendered in return for the grant of land or of money. But by the introduction of the revenue survey and the organization of a stipendiary police, the former system of district service became obsolete, and the duties of the holders of district service assignments ceased. An arrangement has accordingly been introduced under which the holders of such assignments become, on repaying a portion of their emoluments, free from all liability to serve.

CHARACTER OF LAND TENURES, &c.

Religious Endowment.

Holdings granted by the former native governments for the support of Hindu and Muhammadan religious or charitable institutions, such as temples, mosques, &c., and continued under the British Government, come under the head "religious tenure". Such holdings are tenable in perpetuity, or so long as the institution for the maintenance of which they were originally granted, or are now held, may be in existence. They are entered in the public accounts under the head of *devasthán*.

Personal Tenure.

The head of personal tenure comprises that vast body of holdings which, though alienated by the former governments under various denominations, have been continued without any distinguishing peculiarity simply as personal *ináms* or unconditional grants enjoyed by individuals. Under the operation of the Summary Settlement Acts (Bombay II and VII of 1863) and other subsidiary settlements, personal *ináms* are for the most part continuable in perpetuity, and are transferable without any restriction whatsoever. Those, however, which do not come under the summary settlement mentioned above, do not carry with them the right of adoption.

LAND TENURES IN SIND.

Character of the present tenures.

The tenures on which land is now held in the Province of Sind are of a comparatively simple character. Doubtless in the ancient times of Hindu Nationality, and under Brahman dynasties, the same complexity of land tenure prevailed in Sind, as in other Provinces of India; but as successive waves of Muhammadan invasion and conquest passed over the Province, and when finally the bulk of the population had, forcibly or otherwise, been converted to Islamism, the ancient institutions must have gradually decayed, and given way to those brought in by the conquering race. The village system which is supposed, and probably with truth, to have once flourished in Sind, has shared in the common decay. The group of families (Raj) acknowledging generally some one head, the Wadero or headman among Muhammadans, and the Mukhi or chiefman among Hindus, still survive, but all trace of an organization for administrative purposes, all trace of hereditary village officers with assigned duties and remuneration, has long since passed away. A new system of village officers has now been introduced under the Sind Village Officers' Act of 1881. For the present only tapádars or village accountants and supervising tapádars have been appointed, but none are hereditary. A small beginning has been made in the Thar and Párkar District, and a few other localities, by the grant of Seri or small patch of rent-free land to the heads of villages which are continued to the heirs if well behaved, or resumed if service in the suppression of crime is not promptly rendered. In some parts of Sind also, hereditary village *pagis* or trackers are now paid a retaining fee and the development of the system and their gradual conversion into an organised village police is being arranged for.

Land by whom held.

The land in Sind is held by a large number of peasant occupants, and by a small body, numerically, of large proprietors. At the present day, there are, in round figures 29,000 holdings under 5 acres, 57,000 from 5 acres to 20, 27,000 from 20 to 50, 9,000 from 50 to 100, 8,000 from 100 to 500, and 1,600 of 500 acres, and upwards. Some in the last class hold large estates, but 5,000 acres is with a few exceptions the limit. Yet there are not wanting indications that, in time not distant from the present, nearly all the land was held by large proprietors. Most of the land now in cultivation, and most of the waste land within range of existing or of former sources of irrigation, will generally be found to have at one time or other been in the occupation of some large proprietor. The ancestors of the petty holders of the present day were probably tenants, acknowledging by the payment of a portion of the produce the superior right of a zamindár. This state of tenure was a necessity of a period in which the weak had no security for life or property save in the protection of some powerful individual. It was equally necessary to the State, which had no agency at his command adequate to the task of collecting revenue from a vast number of petty cultivators, and was, therefore, compelled to make its settlement with as few and as wealthy individuals as possible. In course of time the zamindári rights in the land were purchased by the tenant, or lapsed on demise without heirs, or otherwise fell into disuse, and thus has sprung up the present large peasant proprietary. There were, however, at the time of the conquest of Sind, a large class of poor cultivators, who cultivated in their own right.

But former tenures have been so modified by the introduction of the revenue survey into Sind that some description of the survey settlements introduced in the Province seems necessary, in order that the nature of the present tenures may be properly understood. At the conquests, and for many years after, the revenue was collected in kind. Sir Bartle Frere superseded it by a rough system of cash payments, and in 1863, a regular demarcation and settlement, on the principles of the Bombay system, was introduced. Leases of villages or estates were also given in some parts of Sind pending the introduction of the settlement.

The settlements existing in 1882-83 were: –

(1) The original settlement. (2) The revision settlement. (3) The irrigation settlement.

But the last original settlement came to an end during the decade, and but few of the revision settlements remain.

These settlements were made on principles somewhat different from those obtaining in settlements in the Presidency. This difference arose from the fact that, owing partly to the poverty of the soil, and partly to the abundance of waste land, and partly, no doubt, to the absence of a sufficient supply of manure, it is not the custom (except in the case of rice lands) to cultivate the same land year after year. The land is consequently allowed to lie fallow from

time to time according to the nature of the crop or means of irrigation, and hence arises the necessity for providing for fallows at the introduction of a revenue settlement.

In the "Original Settlements" the land was divided into large survey numbers, an estimate was made of the share of each that should, with a proper regard to the requisite fallows, be yearly cultivated, and the assessment proper to that share only was placed on the whole survey number. This was what is known as the "Diffused rate" system. At first the zamindárs and cultivators retained all the lands over which they asserted they had a right, whether they had means for cultivating them or not, and also retained cropped lands after exhaustion, paying the assessment on the whole. This involved them in great difficulties. But they soon learnt the plan of cultivating the whole of the survey number at once, and after exhausting it, throwing it up. Fresh land was then occupied, which was in turn treated in the same way. For example, assuming a field of 40 acres, the assessable value of which was Rs. 3 an acre, and that the soil required a 4 years' fallow, then on the assumption that ¼th would be cultivated yearly in rotation, the Settlement Department fixed a rate $\frac{40}{4} \times 3 = 30$ Rs. on the whole number, in the expectation that this sum would be paid for 4 years. But the farmer would cultivate the whole in the first year and then resign it, so that 3 years' assessment is lost. This system was found so detrimental to the revenue that on the expiration of the term (ten years) for which it was sanctioned it was abandoned in favor of a revision or an irrigational settlement.

In "Revision Settlements" the survey numbers were formed of small size, and full assessment having been placed on each, the zamindár could under certain rules allow his fields to lie fallow and yet retain his lien on them without payment of assessment for the years during which the land was left fallow. If, however, he elected to cultivate when the lands ordinarily should lie fallow he became liable to full assessment upon each survey number which he cultivated. There are in 1893 only five tálukas remaining under revision settlement.

"Irrigational Settlements" are now applied to all tálukas on the lapse of the term of original or revision settlements. One of the defects in original or revision settlements was the attempt, which entirely failed, to classify the land and water-supply, and assess the revenue proportionately. The classification of the land is now abandoned, and the assessment is based entirely on the mode of irrigation adopted, which varies in different tálukas and in different groups of villages. This has the merit of leaving it to the farmer to choose the best method of irrigation, season by season, according to the height of the river and the water-supply available. Under this system also the occupants are liable for the full assessment on each survey number when cultivated, but the size of the numbers has been reduced so as to render it possible for each number to be cultivated with one pair of bullocks. The occupants are also permitted to retain their rights over all their lands when lying fallow; but, to prevent abuse of the privilege, an assessment is charged at least once in five years. Practically, assessment is now levied on cultivation only, to the great benefit of the zamindárs and of the revenue. The full rates are high, but in cases of calamities such as locusts or floods, remisisons are liberally given.

There are 42 tálukas at present under "irrigational settlements." In the Desert of Thar and Párkar (4 tálukas), and in the extensive hilly district adjoining Baluchistan, which is treated as 1 táluka, special arrangements exist for levying a very light assessment, no fixed settlement having been made.

There are few tenant rights in existence in Sind. The smaller zamindárs cultivate for themselves and the larger through yearly tenants, who almost always pay the superior a proportion of the crop, not cash, for the privilege of cultivating, the zamindár being responsible for the assessment. The share paid varies from ¼ to ½, according to the difficulty and expense of cultivating.

Hereditary tenancy.

In Upper Sind, in the Rohri sub-Division on the left bank of the river, a species of tenancy exists which requires special notice. This is locally termed, "maurusi haripan," that is "hereditary tenancy or ploughmanship." It is somewhat similar to the *aforamento* prevailing in parts of Portugal and the Beklemreght in the Province of Groningen, described by M. de Lavaleye, in his article on the Land system of Belgium and Holland in the 1st volume of the Cobden Club Essays. The hereditary tenant pays a quit-rent under the names "lapo," "zamindári," "malkano," "tobro" or "deh kharch" to the proprietor. This quit-rent differs in different villages and even on different crops grown, but seldom exceeds 6 or 8 annas per acre and cannot be enhanced. The settlement of the Government demand is made directly with the tenant, and he is, in the land registers, entered as an occupant, the amount of quit-rent payable to the proprietor being also recorded. The right of occupancy is transferable, and in short, is as complete and secure as possible. It has, however, been decided that the original zamindár must not be assisted to recover his "lapo" except through the Civil Courts, on the ground that it represents payment for a service which was rendered. The "maurusi haris" are, therefore, now declining, generally, to pay their dues, and the fees to the original owner will gradually fall into desuetude.

Besides the "maurusi haris" there exist what are styled "2nd class haris." These are the real tenants of the zamindár, to whom they pay "lapo" and also a proportion in accordance with the custom of the country, of the crop as rent, and as long as they do so they cannot be ousted from their tenancies. In these cases the zamindár pays the assessment to Government.

The zamindári system referred to in the last two paragraphs is supposed to have originated in the following manner:—

CHARACTER OF LAND TENURES, &c.

Under the former native rule certain individuals were granted the privilege of collecting certain fees on the revenue accruing from the lands of a tract of country, in consideration of their using their influence in bringing it under cultivation and collecting the revenue on the same. They attracted cultivators, probably advanced them money on account of the expenses of cultivation, afforded them the protection necessary in the then unsettled state of the country, and aided in the collection of the revenue; and the "lapo" was the consideration they received in payment of their services; the "deh kharch" (or village expenses) was probably an extra cess which they levied from their cultivators to meet the cost of entertaining Government officials, guests, &c., &c., and the "malkano" and "zamindári" were other names for the above or similar benevolences. They all, however, now have one common meaning, *viz.*, a charge on cultivation, payable sometimes in kind, sometimes in cash, which the zamindár is, by custom, entitled to receive from the cultivators. The maurusi haris are probably the representatives of the cultivators originally introduced by the zamindárs into the deh; and the 2nd class "haris" the descendants of those who cultivated the zamindárs' private lands as yearly tenants, but who, from long enjoyment of their tenancies, have at last obtained from the zamindár the privilege of holding them permanently on payment of the battai (or share-in-kind) rate customary in the district.

Till about ten years ago the zamindárs of Rohri claimed the right of lapo on all waste lands brought under cultivation in settled districts, but under a decision of the Judge of Shikárpur, it has been ruled that this right does not exist, and that they are entitled to it only from lands which were under cultivation at the time of introduction of the survey settlement.

The very large estates which formerly prevailed in this Province, the property of Muhammadan zamindárs, were in danger of gradually being broken up owing to the combination of many untoward circumstances, partly to their not understanding the original settlements and being forced to pay on all the holdings that they claimed as their own, whether cultivated or not, partly to unthriftiness, coupled with the hardness of the law for the recovery of debt and interest. Improved settlements and irrigation, the growth of intelligence and an Encumbered Estates Act, which saved many large holdings, have stayed or retarded the evil. In former years Hindu zamindárs were rare in Sind, now they are to be found in thousands, partly owing to their having foreclosed mortgaged estates, and partly because they find it a profitable investment of capital.

Rent-free tenures.

The rent-free or partially rent-free tenures comprise jágirs, charitable grants (khairats) and garden grants. Jágirs are ranged under four classes, determined by the period at which the original alienation was made. Thus, the 1st class comprises alienations granted prior to the accession of the Tálpur Dynasty, A. D. 1783; the second, comprise alienations granted in the earlier years, and the third and fourth, those granted in the middle and concluding period respectively of that dynasty. Jágirs of the 1st class are permanently alienated, those of the 2nd class are alienated subject to partial resumption and in certain cases to a payment in lieu thereof on succession, and those of the 3rd and 4th classes eventually lapse wholly to Government. Besides these there are lands permanently alienated to what are known as the four Great Tálpur Families. In these, succession has been regulated on principles similar to those laid down for second class jágirs, but in settling the claims of the four families, fixed rules were departed from in individual cases with a view to a more equitable and liberal treatment of chiefs whose claims called for special consideration.

Patadári tenure.

A distinct class of permanent alienation is found in the neighbourhood of Shikárpur, namely, what are termed "Patadári grants." These are said to have been originally grants under leases (pata) of reduced assessment, made by the Afghán Government to Pathán settlers in North Sind. However this may be, they since acquired the form of assignment of a fixed proportion of revenue on certain lands, and as such they have been recognised and confirmed by our Government. The revenue alienated under this head amounts to Rs. 37,150 (1891-92).

Charitable grants.

The khairats or charitable grants, principally to Sayads, involve the alienation of a revenue of Rs. 46,338 (1891-92). These also are permanent alienations, having been so recognised by the British on the ground of length of enjoyment.

It should be stated that the succession to all hereditary jágirs in the Province is limited by express direction of the Supreme Government to "lineal heirs male," and that these lands are subject to a local cess for roads and schools of 5 per cent., calculated on the assessable value of the jágirs, and also to a water-cess for water taken from Government canals.

Frontier grants.

Besides these ordinary alienations there are large tracts of land in the Upper Sind Frontier District, granted rent-free to Baluch chiefs and their tribesmen. Some of these grants are in perpetuity, others for life, but all subject to good behaviour and loyality, also to the payment of hakabo (water-rate) or any other local cess legally imposed on them. The area thus granted amounts to 24,800 acres, in round figures.

The minor alienations are of three kinds—

(1) Garden grants.
(2) Huri do.
(3) Seri or village service grants.

CHARACTER OF LAND TENURES, &c.

Under both Afghán and Baluch rule in Sind much liberality was shown in the remission of revenue on land brought under garden cultivation. Garden grants are found scattered all over the province. They are divided into two classes— Garden grants.

(1) Wholly rent-free.

(2) Paying reduced assessment subject to certain stipulations. These lands are transferable, and being valuable property, are frequently sold and mortgaged. The extent of land thus alienated is 2,546 acres.

Owing to the tree-less character of the country throughout the greater part of Sind, Mr. Frere, Commissioner in Sind, in 1858, in exercise of the authority then vested in the Commissioner, sanctioned the grant of lands free of rent for the purpose of growing trees. This concession, which has since been continued, is not really of the nature of a land alienation; only the rent due on the land is foregone so long as they are used for the purpose for which they are granted. If any land so granted is cultivated with crops, full assessment is levied. These grants are transferable, the transferee being bound by the conditions of the grant. The area thus granted is only about 1,300 acres. Hurl grants.

The Seri grant is generally made for the promotion of cultivation and for service in the prevention and detection of crime, in the collection of Government demands, &c. These grants are personal and for one life only, though continuable to successor. The area granted rent-free is 11,850 acres. Seri grants.

ALIENATION SETTLEMENT DEPARTMENT.

A regular and systematic enquiry into the validity of titles to alienated holdings in this Presidency was first suggested in 1851 by the discovery of unauthorized and fraudulent alienations during the operations of the revenue survey in the Southern Marátha Country. An enquiry of this nature was tentatively commenced in 1843 in one or two Collectorates of the Southern Marátha Country, and was afterwards developed into an organized investigation which, under the title of Inám Commission or the Alienation Department, was extended to the whole of the Presidency. After some years' experience, however, the operations of this department were found, in consequence of the detailed scrutinies instituted, to be inconveniently slow. It was accordingly resolved to give such persons as claimed an exemption from the payment of Government land revenue the option of avoiding a scrutiny into their title by the payment of quit-rent. With this object Acts II and VII of 1863, known as the Summary Settlement Acts, were passed. Alienation Department.

The Alienation Department was closed in 1876-77 the original alienation work still remaining being transferred to Collectors. The results, up to 1876-77, of the operations of this Department and of the summary settlements which followed, are given below. Financial results.

I.—Annual revenue alienated at the commencement of the alienation enquiry :—

	Rs.
Land	94,36,473
Cash	36,26,220
Total ...	1,30,62,693

II.—Annual revenue recovered to the State immediately and prospectively :—

	Rs.
Land	37,99,357
Cash	13,58,216
Total ...	51,57,573

III.—Annual revenue confirmed to alienees :—

	Land.	Cash.	Total.
On political tenure	3,56,025	3,15,119	6,71,144
,, service tenure	17,89,003	15,18,044	33,07,047
,, religious tenure	3,96,582	2,14,979	6,11,561
,, personal tenure	30,95,506	2,19,862	33,15,368
Total ...	56,37,116	22,68,004	79,05,120

IV.—The arrears of revenue standing to the debit of Government, but decided to be not payable to claimants, and carried to the credit of Government up to 1876-77 amounted to Rs. 23,58,689.

V.—The total expenditure of the Alienation Department up to 1876-77 was Rs. 25,79,453.

The above information is for all the districts in the Presidency inclusive of Panch Maháls, which was until lately a non-regulation district, and in which the alienation enquiry commenced in 1866-67 but was not completed till 1886-87. The results of the enquiry in this district from 1876-77 up to its completion are shown below.

CHARACTER OF LAND TENURES, &c.

I.—Annual revenue alienated at the commencement of the alienation enquiry :—

	Rs.
Land	98,721
Cash	22,930
Total ...	1,21,651

II.—Annual revenue recovered to the State immediately and prospectively :—

	Rs.
Land	27,879
Cash	6,707
Total ...	34,586

III.—Annual revenue confirmed to alienees :—

	Land. Rs.	Cash. Rs.	Total. Rs.
On political tenure	1,462	120	1,583
,, service tenure	44,270	10,101	54,371
,, religious tenure	13,127	7,148	20,275
,, personal tenure	62,989	663	63,652
Total ...	1,21,848	18,032	1,39,880

IV.—The arrears of revenue standing to the debit of Government, but decided to be not payable to claimants, and carried to the credit of Government, amounted to Rs. 200.

V.—The total expenditure of the Alienation enquiry up to 1886-87 was Rs 53,578.

Civil Divisions of British Territory.

CIVIL DIVISIONS OF BRITISH TERRITORY.

The civil divisions of Bombay Presidency comprise territories lying between 28° 45′ and 13° 53′ north latitude and 66° 40′ and 76° 30′ east longitude, with an area of 122,558 square miles and a population according to the Census of 1891 of 18,857,044 souls, and yielding a gross revenue of Rs. 5,28,27,136.

This area comprises 23 districts, and excluding the town and island of Bombay, the Collector of which communicates direct with Government, is divided into four major administrative charges, namely the Northern, Central and Southern divisions and the province of Sind, each under the supervision and control of a Commissioner. Throughout these different divisions in matters of revenue and police one generally uniform system prevails. The administration of justice, on the other hand, in the town and island of Bombay, in the Presidency proper and in Sind, is in each case marked by certain peculiarities. Within the local limits of the town and island of Bombay, it is vested in the Original Side of the High Court, aided in civil matters by the Presidency Small Cause Court and in criminal matters by the magistrates of police. In the Presidency proper it is carried on by a number of district and subordinate Courts, judicial and magisterial, exercising jurisdiction each within defined local limits and acting under the ultimate control and supervision of the Appellate Side of the High Court. In Sind the arrangements are generally similar to those in the Presidency proper, except that the Court of the Judicial Commissioner takes the place of the High Court as the ultimate controlling and appellate authority.

A short account of each administrative district is given below, the town and island of Bombay occupying the first place, and being followed in order by the four commissionerships, the Northern, Central and Southern Divisions and the province of Sind.

TOWN AND ISLAND OF BOMBAY.

Description.

The island of Bombay, with an area slightly in excess of 22 square miles, is situated in 18° 55′ 5″ north latitude and 75° 53′ 55″ east longitude. It consists of a plain about eleven miles in length and three in breadth, flanked by two parallel lines of low hills. Stretching towards the south-west this neck of land encloses on its eastern side, sheltering it from the force of the open sea, an expanse of water from five to seven miles wide. At the south-west of the island Back Bay, a shallow basin of rather more than two miles in breadth, runs inland for about three miles. On a slightly raised strip of land between the head of Back Bay and the harbour is situated the Fort, the nucleus of the city of Bombay. From this point the land slopes northward towards the central plain, a low-lying tract which, before the construction of the embankment known as the Hornby Vellard, used at high tide to be submerged by the sea. To the north and east, though causeways and railway embankments have closed the channel of separation from Sálsette, a large area of salt-marsh land still remains.

History.

The island was ceded by the Portuguese to the English in 1661, as part of the dowry of the Infanta Catharine on her marriage with Charles the Second, when the population was only some 10,000 in number, and was transferred to the East India Company at an annual rent of £10 in 1668. During the first fifty years of the English occupation the history of the island is a record of constant disputes and fighting with the Portuguese and subsequently with their allies the Seedees of Janjira, who in 1688-89 besieged Bombay Castle and actually obtained possession of a considerable part of the settlement. The progress of the town was also checked, to a great extent, by the dissensions between the old and new East India Companies and by mutinies among the troops, but finally in 1708 the two rival companies were fused into one and

Bombay became the seat of a Presidency under a separate Governor and Council, which position it has continued to retain ever since though the appointment of a Governor General of India in 1773 altered to some extent the status of the governing body. CIVIL DIVISIONS OF BRITISH TERRITORY *Bombay.*

Bombay is perhaps best known not as the capital of a Presidency but as the seat of the great cotton trade of India which first started into importance during the American Civil War; with the extension of railways into the interior and the facilities offered by its docks and reclamations it has become one of the great trading centres of the world and forms the gateway of India. It boasts of many magnificent public buildings, the chief of which are the Secretariat, the University and the High Court and the Victoria Terminus of the Great Indian Peninsula Railway; while the Post and Telegraph Offices and the Sailors' Home are also fine structures.

A minute survey of the town was made in 1872, but was not followed by any regular settlement or inquiry into tenures. The island was taken over from the Portuguese without any record of royal or private rights, and encroachments soon became so common that an enquiry into titles was ordered. But in 1672 the Government accepted as a compromise the landholders' offer to pay 20,000 xeraphins per annum, in return for security in their holdings. This assessment was distributed over the several estates by a committee of landholders, who also collected the revenue and paid it into the treasury: but no survey of the lands covered by the agreement has been preserved. Tenures.

The oldest estates in Bombay are held under this agreement on what is known as the Pension and Tax tenure, the pension being the original assessment, and the tax a further charge imposed in 1758 to pay for fortifications. Government have foregone the right to increase the rent of pension and tax land.

The greater part of the building land in the island is held on what is known as "Quit and Ground Rent" tenure, and came into occupation on very various conditions and at many different dates during the 18th and 19th centuries. The rents, which are calculated per square yard, were originally made very low in order to attract settlers, and have rarely been increased. Most of the building sites taken up in recent years are, however, held on regular leases.

The land now known as "Foras" was reclaimed from the sea about 1780 and leased out at low rates for cultivation. Much of it was afterwards built over, and Government considered the question of imposing a special building rate, but finally by Act VI of 1851 confirmed the holders in possession at the old rents.

"Toka" assessment is levied on lands which have come into cultivation since 1672. Originally a crop-share rent, it was in 1837-38 commuted to a fixed cash payment, and in 1879—1882 the rates were equalised and fixed for fifty years.

The revenue of Bombay town and island is collected under a special Act (Bom. Act II of 1876) and not under the General Land Revenue Law of the Presidency. In 1892-93 the land revenue of Bombay amounted to Rs. 2,61,337-13-4, and the excise revenue, including tree-tax, to Rs. 8,41,647-15-6.

The native trade is chiefly in the hands of Bháttiás, Baniás and Márwádis. Here the piece-goods, woollen manufactures and metals of the West are received and distributed to the interior by railway and to the subordinate ports by coasting steamers and native craft. Here are collected the cotton, wheat and seeds which form the bulk of the export trade and are despatched by ships and steamers to Europe, Africa and distant parts of Asia. The mill industry has undergone an enormous development and there are now 67 spinning and weaving factories with a capital of Rs. 5,41,11,220 and employing 67,870 hands. Trade.

The census for 1891 gives a population of 821,764 or 37,353 persons to the square mile, living in 56,519 houses. The number of houses has almost doubled in the past decade, which is a striking proof of the advance in comfort of the inhabitants. Of the total population 543,276 are Hindus, 155 247 Muhammadans, 47,458 Pársis, 45,310 Christians, 241,061 Buddhists and Jains and the remainder other religions. Of this number 101,821 persons are employed in the cotton industry and other industries kindred to it. Other trades employing large number of people are house-building, navigation, tailoring and carpentry. Population.

The Municipal revenue for the year 1892-93 was Rs. 66,65,187. The Municipality is constituted under Bombay Act III of 1872, the Corporation originally consisting of 64 persons, 16 of whom were nominated by Government, 16 by Justices of the Peace and 32 by the rate-payers. By Act III of 1888, however, the number was raised to 72, the additional eight seats being apportioned thus: four to the rate-payers, two to the Chamber of Commerce and two to the University. Fuller particulars with regard to the working of the Municipality during the year will be found in Chapter III. Municipal.

NORTHERN DIVISION.

The Northern Division comprises the districts of Ahmedábád, Kairá, the Panch Mahás, Broach, Surat and Thána. It has an area of 13,729 square miles. It yields a gross revenue of Rs. 1,46,75,618 and has a population of (1891) 3,917,777 souls. Northern Division.

AHMEDÁBÁD.

Area, 3,819 square miles; Population (1891), 921,712; Revenue, Rs. 22,89,588.

The district of Ahmedábád lies between 21° 25′ 18″ and 23° 37′ north latitude and 71′ 21″ and 73° 28′ east longitude. It is bounded on the north by the Gáikwári Description.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Northern Division.*

Territory of Dehgam and Kadi, west by the Runn of Cutch and part of Káthiáwár, south by Bhávnagar, and east by the Gulf of Cambay, the State of Cambay and Kaira, one of its talukas Parántij is completely surrounded by foreign territories. Modása has its villages scattered among those of the Mahi Kántha and Baroda, and Gogha is much intermixed with Gohelvád. The chief feature of the district is the river Sábarmati, which rising in the north-east near the extremity of the Aravali Range flows towards the south-west, falling finally into the Gulf of Cambay. In the north low ranges of hills are met with, but elsewhere, the country is open and level and richly cultivated, except in the extreme west which is subject to inundation, and where there are extensive salt wastes stretching to the Runn. The Nal in the south-west is a shallow lagoon, covering 49 square miles, probably at one time an arm of the sea which communicated with the Runn of Cutch. There are several creeks, of which the most important are those of Dholera and Gogha.

Population.

About 10 per cent. of the population are Muhammadans, the rest being Hindus, except a very few Pársis, Christians and others. Among Hindus, the merchant or Wánia class is the most influential; and unlike the other parts of Gujarát, the Shráwak Wániás or Jain merchants are better off than the Meshri Wania or Bráhminical traders. The wealthiest members of both classes employ their capital locally, supplying the funds by which the village usurers and dealers carry on their business. Those who do not possess sufficient capital to subsist solely by money-lending, borrow at moderate rates of interest from their caste-fellows of greater wealth and deal in cloth, grain, timber, or sugar. The poorest of all keep small retail shops or move from place to place, hawking articles required by the rural population for their daily consumption. Besides engaging in trade, both the Shráwaks and Meshri Wániás are employed as clerks either in Government or private offices. The Kunbis are an important and valuable class and form the bulk of the peasant proprietors of the district. Female infanticide was at one time prevalent among the Kadva Kunbis, owing to the ruinous expenses attendant upon marriage, but the rules sanctioned by Government have had a good effect in checking the practice among this section of the community. The Rájput tálukdárs or large proprietors live on their rents and lead a life of idleness. Rájput husbandmen are indolent and not so skilled as the Kunbis; they have gained considerably by the passing of the Tálukdári Act of 1888. The Kolis form a large proportion of the population and were once a constant source of trouble, plundering the district and levying regular contributions. They have now however become quiet, and are now most of them, either cultivators or labourers. The agricultural population is partly engaged in the mills and partly in agriculture.

Agriculture.

More than half the land is held by large proprietors and Mewási Chiefs. As the river flows in deep channels, there is not much direct river irrigation, but well irrigation is practised considerably. The Háthmati Canal was opened in 1873, it commands 34,000 acres and is also designed to supplement irrigation from the Khári. It is also intended to improve the Khári irrigation by means of a storage tank at Parántij on the Bokh. Other schemes are projected, but, owing to the sandy nature of the soil, the loss by soakage is enormous, and there is a great difficulty in finding solid foundations for head works. Ninety-five per cent. of the Government land is cultivated. Wheat, jowári and bájri form the staple crops, and a good deal of pulses and oil-seeds are also grown. Native cotton occupies a large area and rice is cultivated to some extent.

Roads.

Since 1850 a large sum has been spent upon improving and constructing roads. Gogha is connected with Bhávnagar by a good road; made-roads also run from Ahmedábád south towards Dholka for 20 miles and a new road is nearly finished to connect Ahmedábád with the Naika-Bareja Road and give access beyond to the Kaira and Cambay districts. In the north, Modása, Harsol and Kapadvanj are connected by metalled roads, and a railway from Ahmedábád to Parántij, which will probably be constructed shortly, will connect the entire system with Ahmedábád by a junction at Harsol. The Sábarmati river, which, from the sandy nature of its bed in the dry season and from the fact of its being full of water during the rainy season, has always been a great obstacle to traffic, has now been bridged at Ahmedábád at a cost of Rs. 4,50,000.

Railways.

The railway from Bombay to Rájputána runs through the district and another line runs from Ahmedábád to Viramgám where it turns south to Wadhwán and Bhávnagar, while another branch runs to the great salt-works at Khárághoda. There is also a branch of railway running from Viramgám to Mehsana, which was opened to traffic in 1891.

Trade.

On the establishment of the Muhammadan kings at Ahmedábád the great port for the foreign trade was Gogha, whence imported goods were shipped in smaller craft to Cambay and thence taken by land to Ahmedábád. From Cambay the silks, brocades, and cotton cloths and the indigo and candied ginger of Ahmedábád were carried to foreign markets from Cairo to Pekin. The Gujarát merchants were powerful rivals of the Portuguese, who, however, established their supremacy by the capture of Diu and the sack of Gogha in 1531. The trade of Ahmedábád, however, continued to flourish through the reign of Akbar, until towards the close of the seventeenth century, when it declined. The head of the Gulf of Cambay was silting up rendering access to that port and to Gogha a matter of difficulty; and foreign merchants gradually transferred their places of business to Surat as a better port.

This port combined with the extortionate practices of the Marátha rulers, finally completed the ruin of the trade. In 1781 Mr. Forbes wrote of the city as exhibiting solitude, poverty and desolation, and in 1817 it was described as a melancholy picture of ruins.

Dholera was ceded to the British Government in 1802 and subsequently the trade began to revive. The rise to commercial importance of the inland town of Viramgám, which was situated at the point of junction of the Ahmedábád, Káthiáwár and Rájputána routes dates from this year. At Ahmedábád itself, at the time of its transfer in 1818, cesses on trades and the necessaries of life had been abolished, and a considerable revival of trade activity had ensued; but from its natural disadvantages of situation the improvement was not so marked as might have been anticipated. The trade of Gogha also revived for a time, but it has not been able to maintain its position against the neighbouring port of Bhávnagar and since the diversion of the traffic by the Railway it has ceased to be of any importance. Since 1864, when the railway was opened, Ahmedábád has again risen into prominence, while the ports on the coast have declined; a considerable traffic, however, still passes through Dholera. Large quantities of cotton seeds and grain are exported, while the principal imports are sugar, piece-goods, timber and metal. Trade at Gogha and Dholera continues to decrease, the first from competition with Bhávnagar, the second from the silting up of the creek and the absence of railway communication with the town.

Manufactures.

The manufacture of salt is now chiefly in the hands of Government and is carried on at the large works at Khárághoda and Udu, whence it is exported by the Railway (a part of which runs through the works) to Gujarát and Central India. As a manufacturing district Ahmedábád holds a high place. The artisans of Ahmedábád City have ever since the time of the Muhammadan kings enjoyed a high reputation for their skill and delicacy of their handiwork. The gold and silver thread, copper and brass vessels, wood-carving and cotton cloth, produced in Ahmedábád, have long been well known for their excellence. Twelve steam cotton factories have been established and are in operation. Dyeing, calico-printing and the manufacture of paper are extensive industries. Soap is made at Parántij. The silk industry was once a distinguishing feature of the city, but of late has languished owing principally to the Native Courts having gradually abandoned the use of brocades, and to the preference shown by the women of Gujarát for imported silks from China.

History.

The Anhilwada kings (746—1297) claim the credit of having been the first to bring the country under tillage, but it is probable that neither they nor the Muhammadan kings (1290—1400) completely subdued the Koli Chiefs in the east and the Rájput Chiefs in the west. The country passed under the Mogul Emperors of Delhi in 1570 and from them it passed in 1753 to the Maráthás. The western portion came voluntarily under the British Government in 1802-3 for protection from the aggressions of its neighbours, and the rest of the country in 1817. In 1818 Ahmedábád was made into a separate district. As nothing was known of the resources of the country, the plan of interfering as little as possible with the large proprietors and leasing Government villages to the highest bidder was at first followed, but as it caused much complaint a fixed money rate per acre was then taken from the headmen. Between 1830 and 1853 the settlement instead of being made with the village headman was made with the cultivators direct, and instead of a share of the crop a money rate was taken. Surveys and assesments were made subsequent to 1853 except in the Tálukdári and Mewási villages. In 1863 the Tálukdári villages were surveyed as a part of the measures taken to relieve the proprietors from the load of debt with which they were burdened and the land tax was settled at 50 to 70 per cent. of the survey assessment. The Koli Chiefs were left undisturbed as long as they paid the lump sum which the Collector imposed upon them, but as he had nothing to guide him in making a fair demand, a survey was made in 1873. It appears that these Chiefs are in straitened circumstances and are deeply involved in debt.

Revenue.

The land revenue collected in 1892-93 amounted to Rs. 16,50,192, stamps Rs. 2,54,157, excise Rs. 2,13,924, and income-tax Rs. 1,71,315. There are 15 municipalities, which obtained a revenue of Rs. 4,30,261, and the local fund revenue was Rs. 2,39,813.

KAIRA.

Area, 1,609 square miles; Population (1891), 871,589; Revenue, about Rs. 27,00,308.

Description.

The district of Kaira lies between 22° 15′ 25″ and 23° 10′ north latitude and 72° 33′ 40″ and 73° 27′ east longitude. The Mahi separates it on the east and south from the Panch Maháls, Baroda, and Broach and the Sábarmati on the west from Ahmedábád. To the south-west is Cambay and a broad belt of Gáikwári territory penetrates into the centre of the district. Kaira is an unbroken plain, and the land in the centre is a tract of most fertile and well-tilled soil, and the people are rich and skilful cultivators. Embankments have been thrown across the Khári in the west near its junction with the Sábarmati, which serve to irrigate the rich rice lands of those villages, and irrigation is carried on from a large number of tanks and wells which are useful in irrigating a few acres each.

Population.

The Leva and Kadva Kunbis form the most important class of cultivators, and are sober, quiet and industrious. The Rájput Thákors or landed proprietors still retain considerable estates, but are careless and improvident to a degree, and special measures have had to be taken to relieve them from insolvency. The Kolis who formerly lived by plunder have long settled down as peaceable, but not very skilful, cultivators. The Musalmáns are chiefly employed in agriculture or in mechanical arts and manufactures, with the exception of the Bohoras, a class of Hindu converts to Islám, who live chiefly by trade.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Northern Division.*

The chief grain crops are bájri, rice, jowári (used as fodder), tur, kodra and some wheat. Oil-seeds and cotton are not grown to any great extent, but a large area is under tobacco.

Roads.

Roads were entirely neglected until 1864, when the local fund cess was levied. Since then, however, steady progress has been made, and there are now over 130 miles of good road mostly metalled, and bridges have been thrown across every water-course except the large rivers. As mentioned above in the account of Ahmedábád the whole of the district is now connected with that city by metalled road. The main line of the B. B. & C. I. Railway which passes through the district was opened in 1863; a branch line from Anand to the Panch Maháls was opened in 1874; and in 1891 another branch line from Anand to Petlád was opened.

Trade.

The chief exports are ghee, mowra, grain and tobacco, while cotton seed, metals, molasses, sugar, piece-goods, twist and timber are imported. The manufacture of ghee or clarified butter is a most important industry as shown by the fact that in the course of the past financial year the exports thereof by railway amounted to 25,102 Bengal maunds. The cotton spinning and weaving industry (by hand) has recently declined, owing to the competition of machine-made goods. Glass bangles and spangles are made at Kapadvanj, where also a species of soap is manufactured for export.

Administration of the land.

Part of the lands of the district came into British possession in 1803 by the treaty of Bassein, and other parts were ceded by the Gáikwár for the maintenance of troops. In 1817 more territory was ceded for the support of troops, and other villages were acquired by exchange. A Collector was appointed in 1805, and Kaira was made a large military station. At first the revenue of village groups and single villages were farmed to men of capital and village headmen or hereditary district officers, and the claims of grássias upon villages, although perhaps different forms of blackmail, were settled by Government undertaking to pay the amount from the treasuries in place of allowing the grássias to collect them by force. After 1814 closer inquiries began to be made into the revenue management, and efforts were made to make the land tax fair, simple and unchanging. Village accountants were appointed; a survey was made between 1820 and 1826, and the farming system was gradually discontinued, as it was found that much oppression had been practised by speculators, and that the headmen recovered the Government revenue from the lower classes of landholders and exempted themselves and their connections. The condition of the cultivators gradually improved, until the whole district was under cultivation, the land highly tilled, and the villages well built with every sign of plenty and comfort. From 1863 to 1867 a new survey and assessment was made which removed uncertainty in the land measures, and corrected arbitrary differences in rates chiefly by abolishing all distinction between thrifty and unthrifty tenants. The rates then fixed are now in course of revision.

Narvádári villages.

A large number of villages in the Kaira district are held on the narva or share system, under which the responsibility for the revenue is divided among the members of the family. The different branches of the family are traced back to the common ancestor, and the village divided into as many shares, or *bhág*, as the ancestor had sons, and each descendant pays the portion of his share which falls to his lot. Some of these sharehold villages suffered a great deal at the hands of the speculative farmers in the early period of British rule, and the tenure was abolished in a great many cases. The general condition of the villages in which it survived subsequently underwent great improvement, although they paid a higher tax than in simple villages. The sharers did not work with their own hands, but employed labourers to till their best fields and sublet others, and an alliance with their families was much sought after. In 1862 they were considered to be the richest villages in the district. This tenure has been carefully preserved by a legislative Act of the Bombay Government. Its existence, however, does not affect the amount of land revenue levied or the method of raising it, as it is assessed at the ordinary survey rates on the whole area of cultivable land.

Revenue.

The revenue obtained from land in 1892-93 was Rs. 23,70,136, from stamps Rs. 2,29,614, from registration Rs. 27,235, and from assessed taxes Rs. 73,323; total local fund receipts amounted to Rs. 2,35,956, and from the 11 municipalities existing in the district was raised an income of Rs. 1,58,919.

PANCH MAHA'LS.

Area, 1,606 square miles; Population (1891), 313,417; Revenue, Rs. 4,43,636.

Description.

The Panch Maháls lie between 22° 30′ and 23° 10′ north latitude, and 73° 35′ and 74° 10′ east longitude. They are situated in the extreme east of Gujarát, and is divided into two distinct parts by a strip of Báriya territory. The western portion touches the Kaira district for a short distance along the Mahi river, but otherwise is entirely surrounded by Baroda, Lunávada and Báriya. The eastern portion is included between Báriya, Sunth, Meywár and Málwa. The country is for the most part flat, but the eastern division is more or less rugged. The western division is well wooded, the eastern bare. The forests are nowhere of large growth.

Population.

The bulk of the population is composed of Koli and Bhil cultivators living in small hamlets and scattered huts. The Kolis belong in great proportion to the superior sections of their tribe, and the Bhils, though backward in all material respects, are fairly well conducted. Both are much addicted to excessive drinking of alcohol. There is a

steady flow of immigration, which is gradually adding to the number of Kunbis in the district. This useful class, however, is only to be found in the western maháls at present. There is a considerable leaven of Rájputs in all positions from peasant to tálukdár. As a class they are more ornamental than useful. The Mussalmán Gánchis, a manly and energetic race, whose principal occupation is that of carriers, are taking largely to agriculture. They are to be found mostly in the neighbourhood of Godhra. The Náikdas, probably the wildest tribe in the Presidency, are in strength in the forest country to the south and east of the western maháls. They make no progress, and are still fickle and unreliable. Trade is in the hands of the Banias and Bohoras, the latter monopolizing the very considerable timber business. The latter are almost confined to the two principal towns of Godhra and Dohad, but the Banias are well represented in all well established villages.

Crops.

Maize, the staple food of the district, is grown as the first monsoon crop. Bájri and rice are also very largely cultivated. Kodra and sesamum are sown for the most part in partially cleared or new lands. The late crops are wheat and gram, and these very generally follow as second crops. The mowra tree is common, and the flowers which it produces are extensively consumed and exported. Tobacco has become a staple product of the district and the area devoted to its cultivation is increasing. Tur and castor oil are also grown as well as 'báuta' and other inferior grains. The available waste land is now only 12 per cent. of the cultivated area.

Trade.

The most important route lies east and west connecting Gujarát with Central India and Rájputána. Up to the present time the town of Godhra, on account of its position as the terminus of the railway from A'nand, has been the centre of trade and exchange. The Godhra-Rutlam extension, now under construction, must however make considerable changes in the course of traffic, and increase the importance of other places along the line. But the natural outlet for export will still be to the west. There has been a rapid increase in the volume of trade in the last two years, and the opening of the new line cannot fail to afford a further stimulus. Owing to the easy character of the country the line will be freely fed throughout its entire length. The chief articles of export are grain, timber, mowra flowers and fruit, oil, oilseeds and hides. Of these, timber has hitherto been the most important, but the supply of this commodity is limited, while that of other products is increasing with the advance of cultivation and the improvement of communications. The imports consist of salt, tobacco, cocoanuts, hardware and piece-goods. The only manufacture of special interest is the making of lac bracelets at Dohad.

History.

The history of the Panch Maháls centres in Chámpáner, which is said to have been founded in the seventh century. The Chohans established themselves about 1297, and their rule lasted till the conquest of Chámpáner by Mahmud Begda in 1484. During the next fifty years the neighbourhood of the city would seem to have been one of the richest parts of Gujarát, but, deserted by the Court about 1536, it fell into ruins before the close of the century. Under the Moguls Godhra became the district head-quarters, and seems to have been chiefly known as a hunting ground for wild elephants. In 1727 the district fell under the Maráthás and about the middle of the century was annexed by Scindia. The fort of Pávágad was taken by the British in 1803, but was restored soon after, and remained with Scindia until 1853, when he leased the district to the British. In 1858, Tántia Topi made a raid into the district after his defeat at Chhota Udepur, but being overtaken by the British troops, he retreated after plundering a few villages. The Náikdas had also broken out and continued to give some trouble for some months until the leaders laid down their arms. In 1868 they rose again under the instigation of a Bhagat or inspired man, who claimed to have the power of working miracles. He first attempted a moral reformation, but soon allowed himself to drift into the position of a political leader, and proclaimed the establishment of the Náikda kingdom. His career was short; being attacked and defeated, his followers dispersed, and he himself was caught and hanged. Since then there has been no disturbance and the Náikdas are now peaceable and amenable to law.

Administration of the land.

After the establishment of order in the Rewa and Mahi Kántha districts the Panch Maháls continued under Scindia to be a source of infinite trouble until he consented to place the district under British management for ten years, on which the British took possession in 1853. Before the time expired, he exchanged the Panch Maháls for lands near Jhánsi, in 1861. They were at first under the management of the Political Agent, Rewa Kántha, and were then transferred to Kaira, and placed under a First Assistant Collector. In 1877 the district was made into a distinct Collectorate, and the Collector was placed in charge of the Rewa Kántha States. Up to 1885 the Panch Maháls were treated as a non-regulation district, but in that year they were brought into line with the rest of the Presidency.

When the British took over the management in 1853, the greatest disorder prevailed, as the district had for many years been in the hands of revenue contractors who were not interfered with as long as the revenue was paid. Some of the Rájputs and village headmen had been forced into outlawry and the contractors in retaliation had collected mercenaries with whom they harried the villages. The contractor assessed each village to the extent he thought it could pay, on the basis of what it had paid before, and in other places levied a tax on the plough, or took a share of the crops. The British Government has respected the position of the large landlords, Tálukdárs and Thákors who are chiefly

CIVIL DIVISIONS OF BRITISH TERRITORY. *Northern Division.*

Kolis, and own estates varying from one village to forty or fifty. These villages have been valued, and a certain proportion of the full assessment has been fixed as the rent for a period of years. The alienations of Government villages have been inquired into and settled on an equitable basis, and a survey settlement has been introduced throughout the district. Leases on specially favourable terms were formerly granted to encourage the occupation of waste lands, but this plan was not attended with any great measure of success, and has been practically superseded by the survey settlement which offers every facility for the spread of cultivation. The transit duties and other vexatious levies of the Native Government have been abolished. The railway which till recently had its terminus at Godhra will soon pass through the whole breadth of both divisions of the district. With this stimulus the progress of the country is assured.

Revenue.

The revenue obtained from land in 1892-93 was Rs. 3,26,916, stamps Rs. 35,948, excise Rs. 67,067, and assessed taxes Rs. 13,705. The local fund revenue was Rs. 75,286, and Rs. 27,252 were raised by the three municipalities.

BROACH.

Area, 1,463 square miles; Population (1891), 341,490; Revenue, Rs. 26,80,053.

Description.

The district of Broach lies between 21° 25′ 45″ and 22° 15′ 16″ north latitude and 72° 34′ 19″ and 73° 12′ 15″ east longitude. On the north the Mahi separates it from Cambay and Kaira, and on the south the Kim divides it from Surat; to the east lies Gáikwádi and Rájpipla territory, and on the west the Gulf of Cambay. The rivers Dhádhar and Narbada run through it to the sea, the latter navigable after the rains for light craft as far as Broach, and at the mouth of the former is the small port of Tankaria. Parallel with the coast is a belt of salt waste land, but beyond is a rich and well cultivated plain.

Population.

The Kunbis are the principal cultivators, and regard themselves as declining in respectability the further they recede from the Mahi. The Rájput Grássias live on their rents. The cultivating Rájputs are far inferior in skill to the Kunbis, and appear in many villages to be decreasing in numbers. The Kachhias are market gardeners and vegetable sellers, and are skilful cultivators. Much of the land along the sea coast is cultivated by Kolis, who are fairly prosperous. The Modh Wániás are influential among the mercantile community and the Gurjar Wániás are known for boldness and enterprize in trade. With the exception of the Bohoras, who are a well-to-do class, the Broach Musalmáns are for the most part in a depressed condition. The Bohoras form a large section of the population and are distributed over every part of the district, being chiefly occupied in cultivation. They are hard-working and independent, but also turbulent and much given to agrarian crime. The Pársis have been settled in Broach for six centuries, and, once skilful weavers, have by degrees turned into enterprizing merchants, ship-owners, land proprietors and gin-owners.

Crops.

The district contains 683,721 acres of culturable land, of which only 3 per cent. is left uncultivated. Cotton holds the first place among the crops of the district. Experiments to introduce exotic varieties have failed, but a roller gin introduced in 1864 has entirely supplanted the old native cleaner. Wheat is the crop next in importance, and jowári and rice are also largely cultivated, while tobacco is the principal product of the extraordinarily fertile alluvial lands of the Narbada.

Trade.

Road-making first commenced in 1863, with funds drawn from the local fund cess, and there are now over 170 miles of made road in the district. Formerly the Gujarát and Málwa trade passed through the ports of Broach and Tankaria, but since the opening of the railway, trade by sea has fallen off. Eighteen hundred years ago it was one of the chief seats of trade between India and Western Asia. Gold and silver, slaves, pearls, Italian and Persian wines and dates were largely imported, and rice, ghee, cotton, oil and sugar exported, besides sandalwood, ebony and muslins. The trade continued to the seventeenth century, and then centred more and more in Surat and subsequently in Bombay, and there remains now only a small coasting trade. The railway opened in 1861, and passing through the east of the district it has contributed to the decline of the trade at the seaports and reduced the importance of the town of Broach as a provincial mart. Cleaned cotton, wheat and piece-goods are the chief exports, and yarn, metals, sugar, piece-goods and timber the chief imports.

Manufactures.

Broach has long been famous for its manufacture of cloth, and this led the English and Dutch to establish factories here. In the last century thousands of men, women and children were employed on this work, but the competition of machine-made goods has almost destroyed the hand-loom trade. There are now three mills for spinning and weaving which have been established within the last twenty-five to thirty years, but of these two are at present closed on account of financial pressure. The native *charkha* has been superseded by steam ginning factories, of which there were 38 in 1892-93. Knives, tools and some articles of hardware are made at Amod.

History.

In its history Broach has followed the fortunes of Ahmedábád. In 1616 the Emperor Jehangir permitted the English to establish a trading house, which was finally withdrawn before the middle of the eighteenth century. In 1736 the Musalmán governor of the town assumed independence and founded the family of the Nawáb of Broach. The English came into collision with the Nawáb in 1772; he had promised to satisfy their claims by a payment

of 4 lákhs, but failing to carry out his engagement an expedition was sent against him, and Broach was taken by storm. In 1775 Amod, Hánsot and part of Ankleshwar were received from the Peshwa in return for military assistance, and Jambusar was also ceded, but subsequently these acquisitions were given over to Scindia for his assistance at a critical time. War having again broken out, the English recaptured Broach from Scindia in 1803, and the Peshwa ceded the outlying tálukas in 1817. A Collector was appointed in 1805, and though it has been twice reduced to the position of a subordinate Collectorate for the sake economy, it has been since 1869 a distinct district.

Administration of the land.

A small landed aristocracy of Rájput pedigree still occupies a position of some importance in the district, but being heavily burdened with debt, their estates would have been attached and sold under the ordinary process of Civil Courts, if Government had not interfered, and by the passing of Act XV of 1871 saved them from extinction by assuming the management of the estates and paying off their debts. The share-hold or bhágdári tenure prevailed in most villages, but under Marátha exactions many of these communities lost their peculiar constitution, although they survived in the territory under the personal rule of the Nawáb of Broach; and this tenure is now guarded by Bombay Act V of 1862. The first revenue settlements in simple Government villages were made with the village headman and not with the individual cultivator, but after 1837 a change was made by settling with the cultivators the revenue which each should pay. The fall in prices and other causes combined to make these settlements oppressive, and in consequence they were revised and lowered in 1848. In 1868 the survey settlement was introduced, and as railways and better roads had exercised a great influence upon the material prosperity of the district, the rates were raised.

Revenue.

In 1892-93 the land revenue collection amounted to Rs. 22,99,520, stamps Rs. 1,43,477, excise Rs. 1,95,852 and income tax Rs. 41,204. The local fund revenue amounted to Rs. 2,12,060 and the five municipalities had a total income of Rs. 1,40,074.

SURAT.

Area, 1,653 square miles; Population (1891), 649,989; Revenue, Rs. 36,81,546.

Description.

The district of Surat lies between 20° 15′ 0″ and 21° 28′ 0″ north latitude and 72° 38′ 0″ and 73° 30′ 30″ east longitude. On the west the coast for 80 miles stretches along the Arabian Sea, on the north the Kim divides the district from Broach, on the east it is bordered by the Native States of Rájpipla, the Gáikwár, Bánsda and Dharampur, and on the south by Daman and Thána. Nearest the sea is a barren stretch of sand drift and salt marsh, behind that a rich highly cultivated plain, and further east poorer and more open land rising gradually into a wild tract of hill and forest. The Tápti and the Kim are the only important rivers, and the former is ordinarily navigable up to the city of Surat for native craft of from 18 to 36 tons burden. A canal is projected from this river with head-works at Kamlápur 35 miles above Surat, but nothing has yet been done to carry it out. There are no lakes, but a large number of tanks serve for irrigation. In Mándvi about 64 square miles have been put under forest, and in each of the tálukas of Bulsár, Párdi, Chikhli and Bárdoli there is one square mile under forest.

Population

The Bháthela Bráhmans rank as the highest cultivating class in wealth and position, and with the assistance of their hereditary servants or hális they give much labour and care to their fields. The Kunbis are the next in rank, and they engage in money-lending and trade as well as agriculture. The agriculture of the lower classes is of the rudest description. The Wániás are the chief traders, and the Márwádi Shráwaks are the rural money-lenders. The Musalmáns are chiefly found in towns engaged in manufacture, and their condition is depressed; but the Bohorás both as traders and cultivators are fairly prosperous. The Pársis are numerically few, but are educated and well-to-do.

Crops.

The cultivated area amounts to 740,266 acres, and 4·72 per cent. of the culturable land is waste. Irrigation is commonly practised from ponds and wells, but the latter are often mere holes made to last a year only. Rice is the principal crop, and is very remunerative. It is grown chiefly in the south, while jowári is grown in the north. Cotton is also largely cultivated, and the culture is fast spreading towards the south. Kodra and nágli are grown and consumed by the poorest classes. Four varieties of sugar-cane are generally grown, *viz.*, Wasaigri, Wansia, Red (Songhadi) and Khajuria (or Surti). The first named is chiefly cultivated.

History.

The town of Surat does not appear to have been of any importance until the sixteenth century, when it was thrice burnt by the Portuguese, and to defend it the Ahmedábad kings built the present fort in 1546. In 1572 it was besieged and taken by Akbar, and for the next 85 years Surat enjoyed peace and rose to be one of the first cities in India. Troubles with the Maráthás ensued in Aurangzeb's reign, and subsequently the local governors were practically independent of the Mogul. The English established a factory in 1612, and for many years a struggle for ascendancy was maintained between them, the Dutch and the Portuguese. In 1664 the Dutch and English combined resisted an attack of Shiváji on Surat, but for many years afterwards the town was regularly exposed to plundering excursions of the Maráthás. The disturbed state of the country and the decline in the value of the trade induced the English to transfer the chief seat of the Company's trade to Bombay, which was effected in 1687, the trade with Surat being carried on through coasting vessels.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Northern Division.*

On the death of Aurangzeb (1707) the Maráthás established their power up to the walls of Surat, and the resources of the Muhammadan governor were reduced to the revenues of the city, where the greatest confusion and disorder prevailed during the long conflicts for the office of governor. Order was restored in 1733 when the governor became practically independent of the Delhi Court and assumed the title of nawáb. In 1746 the disorders recommenced, and ended in the capture of the city by the English in 1759, who obtained the power of nominating the governor. Under the protection of the English a period of active trade and prosperity set in, but towards the close of the century trade declined, and in 1799, on failure of heirs, an arrangement was made by which the brother of the nawáb obtained the title with a pension, but resigned all executive power to English, the immediate cause of this change being the street fights between Hindus and Muhammadans which the nawáb was quite unable to suppress. The districts of Surat were acquired partly in 1804 under the treaty of Bassein and partly in 1817 in consequence of the treaty of Poona, and the state of Mándvi lapsed in 1839.

Trade.

Roads were neglected until the passing of the Local Funds Act, and since then about 368 miles of road have been made, and the Tápti has been bridged at Surat. The railway was opened in 1864, and runs through the district. The sea-borne trade from the seven ports has shown a great increase in the last decade. The value of goods exported from Surat alone which was Rs. 13,90,797 in 1883-84, has increased to Rs. 23,41,362 during the year under report. Grain, cotton, timber, oil, sugar and molasses and piece-goods are the chief articles of export. The weaving of cotton cloth in hand looms is carried on in the chief towns. Three steam factories for spinning and weaving are also at work, as well as a large number of cotton gins and presses. Silk is manufactured in considerable quantities as well as brocades and embroidery. The trade of the city of Surat itself suffered to some extent from the damage done to the houses and workshops in a large part of the city by the great fire of 6th April 1889, when property valued at Rs. 25 lákhs was destroyed.

Administration of the land.

On the assumption of the government in 1800 a Lieutenant Governor was appointed besides a Judge and Collector. The last named is now the chief executive officer, and in his political capacity is Agent to the Governor. The district contains 8 tálukás or sub-divisions. When first acquired the grássias claimed as the representatives of the original Hindu landowners of the district a share in the land revenue, and collected their dues at the head of an armed force until Government in 1813 undertook to collect the amount from the villages and pay the grássias. The desáis were middlemen by whom the land revenue was farmed; but with a view of decreasing their power and influence accountants were appointed to each village in 1814, and afterwards the revenue was collected direct from the cultivators, and the practice of farming discontinued. No change was made in the old rates until 1833, when, in consequence of the fall in prices, the rates were revised and considerably reduced. In 1836 committees were appointed to divide the soil into classes and fix equitable rates, and from 1863 to 1873 the survey settlement was introduced.

Revenue.

The land revenue collected in 1892-93 amounted to Rs. 23,55,310, stamps Rs. 1,95,853, excise Rs. 10,38,825 and income tax Rs. 91,556. The revenue obtained from local funds was Rs. 2,76,400 and the 4 municipalities raised a revenue of Rs. 4,16,811.

THÁNA.

Area, 3,579 square miles; Population (1891), 819,580; Revenue, Rs. 28,80,487.

Description.

This district lies between 18° 42′ and 20° 41′ north latitude and 72° 45′ and 73° 48′ east longitude. It runs along the coast for about 100 miles with a maximum breadth of about 60 miles, and is confined between the Sahyádri Ghát on the east and the sea on the west. On the north it touches Daman and Surat, on the south Kolába and on the east Poona, Ahmednagar and Násik. The country is well watered and wooded, and except in the north-east is a low-lying rice tract broken by hills. Towards the north there is almost unbroken forest with small patches of tillage; and the plateau of Jawhár is situated in this tract. Most of the principal hills bear forts, now dismantled and uninhabited. The rivers are unimportant, except the Vaitarna, which is navigable for small craft from Agashi to Manor, and the Ulhas system, navigable as far as Titwála. There are no natural lakes; but the Vehár, Tulsi and Tánsa reservoirs, formed artificially, supply Bombay with water. The forests occupy 1,269 square miles or about 35 per cent. of the entire area, and lie chiefly in the northern half of the district.

Population.

The early tribes seem to have kept their descent unmixed in the rugged north-east, while the coast is peopled by a mixture of these with immigrants from the Deccan and Gujarát. The Chitpávan or Konkanásth Bráhmans are the most numerous among the priestly class, and furnish a large number of superior native officers and clerks for Government offices. They are settlers from Ratnágiri, while the Deshásthas, found chiefly in South Thána, are immigrants from the Deccan. The Káyasth Prabhus are mostly writers and accountants. The traders are chiefly Gujar and Márwár Wánis, or Musalmáns. The Kunbis and the Agris are the principal cultivators. The former are the chief growers of rice. The fishermen are chiefly Kolis, Mangelas and Máchis; and the Bhandáris and Kalans are hereditary drawers of toddy and distillers. The forest tribes are mostly Káthkaris, Thákurs and Várlis. There is a large number of Native Christians in Sálsette and Bassein who were converted during the ascendancy of the Portuguese, and also of Musalmáns, chiefly in Sálsette, Bhiwndi and Kalyán. There are many Pársi land-holders in Dáhánu and some even in Máhim.

CIVIL DIVISIONS OF BRITISH TERRITORY.

Northern Division.

Crops.

The cultivation of rice is carried on extensively in embanked fields. Large areas have also been reclaimed from the sea by protective embankments (those referred to above are retentive); and on these, after a year or two, 'red' rice, inferior to the white varieties, can be grown, until the ground has been thoroughly sweetened and is fit for 'sweet' rice. Reclamation leases are issued on favourable terms, and no rent is levied for the first ten years. Sweet rice seedlings cannot well be grown without manure, chiefly supplied in the form of wood ashes, and hence a certain area of 'varkas' or upland is or should be usually held with a rice field to supply this manure. Dwarf millets and oil-seeds are grown on the uplands, and pulses and fibre (sun-hemp, Crotalaria juncea) on low-lying dry-crop lands. One pulse (Cicer arictinum) follows sweet rice as a 'stolen crop.' There is a great trade in natural forage with Bombay, and the gardens and orchards of the coast produce an important amount of vegetables and fruit, the most noticeable of which are the plantains and mangoes. The so-called Bombay mangoes are mostly produced in Thána. Inland there are few gardens, or people capable of managing them.

Trade.

From the earliest historical times there has always been an ocean-borne trade on this coast and caravan traffic through the Thána passes. But this is now centred in Bombay, and the roads and tracks of the Thána district, as now existing, only carry the local traffic which is flourishing and increasing.

Since the establishment of local funds many district roads have been made and there are now 505 miles of good made roads in the Collectorate. The main lines of railway run through the district; one runs north to Gujarát and Upper India, and the other east to Kalyán, and there divides into two branches, the first running by the Thul Ghát to Násik and Calcutta, and the second by the Bhor Ghát to Poona and Madras. The Great Indian Peninsula Railway was opened as far as the ghats between 1853 and 1863, and the Bombay Baroda and Central India Railway between 1858 and 1864. The chief imports from Europe are kerosine, metals and hardware and piece-goods; from inland millet, wheat and oil-seeds (brought to Bhiwndi to be pressed); from Uran in Kolába country spirit, salt, rice, timber, firewood and fruits are exported. The manufacture of salt employs about 15,000 persons; silk weaving was once an important industry but is now confined to a very few families of Native Christians in Thána itself. Cotton weaving by hand-looms is practised by Musalmáns and there are two spinning and weaving mills at Kurla.

History.

There appear to have been many changes in the Hindu dynasties which ruled over Thána. The last were the Siláháras, probably of Dravidian origin, and in their time (Circa 1300 A.D.) the Musalmáns overran the coast, but their supremacy was hardly more than nominal until about 1500, when the Gujarát kings established themselves firmly. They soon came into collision with the Portuguese, who at this time appeared upon the coast, and after a struggle established themselves at Bassein in 1533 and built a fort. Their acquisitions spread along the coast and brought them into hostility with the Ahmednagar kings who held Kályan and the interior, and with the Koli chiefs of Jawhár. The possession of the Ahmednagar kings passed to the Moguls and from them for a short time to Bijápur. In 1666 Shiwaji obtained possession of the south-east of Thána and attacked the Portuguese in Sálsette, and by 1675 he was the undisputed ruler of the interior as far as Kalyán, but a little later the Moguls regained a footing and in 1694 attacked the Portuguese. The Sidis of Janjira commanded the Musalmán fleet, and the naval wars between them and the Maráthás often imperilled the existence of the island of Bombay, which was held by the English, who endeavoured to maintain a neutrality. Arab pirates devastated the Portuguese possessions, and after Aurangzeb's death Angria subdued the country from the Bhor Ghát to Bhiwndi. About 1731 the power of Angria and the Sidi appears to have declined by reason of internal dissensions, on which the Peshwa's central government came to the front, and by 1739 had deprived the Portuguese of all their possessions, including the ports of Thána and Bassein. The expense of maintaining Bombay induced the English to make an effort to obtain Sálsette by treaty, and this failing, they took it by force in 1774. Their possession was then recognized. Jealousy of the French, who had entered into negotiations with the Peshwa, induced the Bombay Government to attack the Maráthás, but being obliged to oppose Hyder Ali in Madras, they restored their conquests on the mainland of Thána by the treaty of Salbai in 1782. In 1817 the Peshwa ceded the northern parts of the present district in return for British support, and, war breaking out almost immediately, the rest was overrun and annexed. Since then the operations to put down the Koli robbers, which extended over several years, have been the only cause of serious trouble, and lately in 1874 and 1877 there were a number of gang robberies which were suppressed, not without difficulty.

Administration of the land.

Most of the occupied land of the district is held direct from Government on the ordinary "survey tenure," but there are a number of estates in the island of Sálsette held on favourable leases granted by the Company and on the mainland a few inám villages (alienated) and some Isáfats, that is, hereditary farms of land revenue held by old official families, who have been specially treated, and are allowed to hold their villages at survey rates with a deduction of 10 per cent for management. Salt marsh reclamations have been effected by Government by single land-holders (shilotris) or by bodies of husbandmen (kularag). In some cases Government pay a yearly sum for the repairs of the embankments; the shilotri is responsible for the repairs and in peasant-held reclamations all combine to do the work.

Revenue.

The ancient system of revenue was a tax fixed in the lump on rice fields on an estimate of its produce, and in the uplands a tax was levied on the plough, the bill-hook and the pickaxe.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Northern Division.*

Cocoanut orchards were rated per "bigha" (a variable measure). The Portuguese in Bassein and Salsette leased the land to "fazendeiros" hereditary farmers of land revenue at a "foro" or quit-rent, but the payments of the tenants to the proprietors were regulated on the ancient system. Owing to the disorders during the Marátha wars a great part of the land was thrown out of cultivation, and the Maráthás encouraged Bráhmans and others to settle on lands at low rates, and these known as Pandharpeshas were able to resist the exactions of the revenue farmers when in later years the Maráthás farmed out the revenues of the district. At first the British Government retained the farming system, but soon abandoned it, and entrusted the management to Government officers, fixing the demand at one-third of the average produce which was then commuted into a money payment. On the cession of territory in 1817, village accountants displaced the revenue farmers, and cesses were abolished or reduced so that the people might have the certainty of knowing that they had to pay one tax and no more. A survey was pressed on to gain information of the resources of the district, and specially low rates were offered to the wild tribes and cultivators who had forsaken the plough for the sword. Improvement, however, was slow, and in consequence of the fall in prices, the money rate came to represent too large a share of the crop. Between 1835 and 1842 therefore the rates were revised, and reduced by 20 per cent.; and transit duties were abolished. The effect of these measures was that the revenue was realised without complaint, and the cultivators became the owners of valuable properties, and in 1844 the district was still further relieved by the abolition of the mohtarpha or license taxes. The survey assessment was introduced between 1852 and 1866, and a marked increase in cultivation and revenue has gone on ever since, probably due in great measure to better demand and better communications. The increase would have been much greater if it had not been necessary to withhold much land from the market for forests.

The land revenue collected in 1892-93 was Rs. 12,09,381, stamps Rs. 1,53,396, excise Rs. 9,53,342, assessed taxes Rs. 44,817 and Rs. 87,209 miscellaneous receipts. The forest receipts during 1892-93 were Rs. 4,32,342 and the local fund revenue was Rs. 1,53,175. There are seven municipalities which raised a revenue of Rs. 1,47,564.

CENTRAL DIVISION.

Central Division.

The Central Division was constituted in 1878, and contains a total area of 37,260 square miles, and a population (1891) of 6,237,666. It yields a gross revenue of Rs. 1,56,39,763, which is derived from the districts of Ahmednagar, Khándesh, Násik, Poona, Sátára, and Sholápur.

AHMEDNAGAR.

Area, 6,645 square miles; Population (1891), 888,755; Revenue, Rs. 19,74,000 (exclusive of Forests and Local Funds.)

Description.

The district of Ahmednagar lies between 18° 20′ and 19° 59′ north latitude and 73° 40′ and 75° 43′ east longitude. It is bounded on the north by Násik and the Nizám's territory; on the east by the Nizám's territory, on the south by Sholápur and Poona; and on the west by Poona and Thána, with the Sahyádris or Western Gháts intervening between itself and the last mentioned district. It comprises eleven tálukas, of which the Jámkhed táluka on the south-east is awkwardly intermixed with foreign territory belonging to the Nizám. Three spurs of the Sahyádris enter the district, and one of them traverses it; the valleys between them form the beds of the Pravara and Mula rivers. To the east of the two northern spurs, the country opens out into a vast alluvial plain along the valley of the Godávari; and on the south the Bhima valley presents a similar aspect. The country between these plains presents every variety of hill and dale, sterile height, and fertile lowland. The Pravara and Mula, after flowing parallel from the Sahyádris, unite, and join the Godávari on the north-eastern border. The city of Ahmednagar is situated on the river Sina, which rises in the centre of the district and flows southward to join the Bhima. About 870 square miles of land have been constituted forests.

Population.

The bulk of the population belongs to the Marátha race; and the members of it are mostly cultivators or artificers. These are followed, in order of numerical importance, by the Mahárs, Musalmáns, Bráhmans, Vanjáris, Dhangars, Kolis, Mángs, and Márwáris, as the principal classes.

Agriculture.

The district contains 1,223 Government and 151 alienated villages. Irrigation from wells is general. The irrigational works opened by Government are the Lákh and Ojhar canals and the Bhátodi tank. The chief crops are jowári and wheat, which are exported in large quantities. Bájri and gram also are largely cultivated. Communications are plentiful and excellent; and the Dhond-Manmád Railway traverses the district from south to north, connecting it with the Madras and Calcutta systems of the Great Indian Peninsula Railway at Dhond and Manmád. Ahmednagar itself is the centre of a considerable trade: four steam factories are at work for pressing cotton; and weaving is an important local industry.

History.

The earliest period of the history still remains to be worked out. But from the researches made by Mr. Fleet, of the Indian Civil Service (Bombay), into the ancient records, this much is now known, that from the middle of the sixth century A.D., up to the Muhammadan conquest which was completed in A.D. 1318, with all the rest of the Bombay Presidency,

and with much adjacent territory, the Ahmednagar district was held, from about 550 to 757, by the kings of the great Chalukya dynasty of Vátápi, which is the modern Bádámi in the Bijápur district. The country then passed into the hands of the Ráshtrakutas or Ráthors, who retained it till 973: their capital was Mányakheta, which is the modern Málkhed in the Nizám's dominions about eighty miles east of Indi in the Bijápur district; and they were the Balháras whose power and magnificence have been described in such eulogistic terms by the Arabian historians and geographers of that period. The Ráshtrakutas were followed immediately, in 973, by another set of kings of the Chalukya stock, whose capital was Kalyána; this place is the modern Kalyáni, in the Nizám's dominions, about seventy miles east by north from Sholápur. These Chalukya kings held the whole land till 1156. They were then followed, for a short period of about thirty years, by the Kalachurya kings, under whom Kalyána continued to be the capital. The Kalachuryas were supplanted by the Yádavas, who had gradually risen to power through being leading feudatories in the country that includes Násik and the northern part of Ahmednagar and the territory round Paithan in the Nizám's dominions, of the Ráshtrakutas and of the Chalukyas of Kalyáni. The first Yádava king established his independence in 1187. Shortly afterwards he lost some of the southern provinces, south of the Malparbha and of the Krishna from the point where the Malparbha joins it, to the Hoysalas of Dorasamudra, which is the modern Halebid in Mysore. The Yádavas, however, soon recovered most, if not all, of those provinces. They then established themselves at Devagiri, which is the modern Daulatábád, close to Aurangábád in the Nizám's dominions. And there they reigned until 1294, when the last but one of them, Rámachandra or Rámdeo, had to surrender to an invading Muhammadan force, sent from Delhi under Allá-ud-din, the nephew, and subsequently the successor, of Jelál-ud-din or Ferozsháh, the first of the Khilji emperors of Delhi. The Devagiri kingdom then became practically a dependency of the Delhi empire. Subsequently, Rámachandra became irregular in the payment of his tribute. And in 1306 Allá-ud-din, who had meanwhile succeeded to the throne of Delhi, had to send another army against Devagiri, under the command of Malikáfur. The place was then again reduced. But Rámachandra having done homage to the king of Delhi, which city he visited in person, was restored to favour and [illegible] to his own rank and power, and was even presented with additional territory. Rámachandra died in 1309 or 1310, and was succeeded by his son Shankara, who shortly proved to be not well affected to the Muhammadans, and who, in his turn also, withheld payment of tribute. In 1312, Malikáfur again proceeded into the Deccan,—seized Shankara, and put him to death,—subdued the whole country,—and took up his own residence at Devagiri, from which place he realised the tribute from all the Hindu Princes and remitted it to Delhi. Some trouble was subsequently given by Harapála, a son-in-law of Rámachandra, who took advantage of intrigues at Delhi,—stirred up the Deccan to arms,—expelled a number of the Muhammadan garrison, and asserted his power over the former territories of Devagiri. But in 1318, Mubarik Khilji, who had then succeeded Allá-ud-din, himself led an army to chastise Harapála, whom he captured, flayed alive, and decapitated. This completed the extinction of the Yádava dynasty, and of the Hindu rule in any shape. And in 1325, Muhammad Tughlak, the then emperor of Delhi, happening to visit Devagiri on one of his campaigns, was so pleased with the place that, for its Sanskrit name Devagiri, which means 'the mountain of the gods,' he substituted the Arabic appellation of Daulatábád or 'the city of wealth,'—which name it still retains; and thus he wiped out the last remnant of Hindu supremacy. He also entertained the idea of making Daulatábád the capital of his empire, but in this project he failed. In 1347, while Muhammad Tughlak was still reigning there was a general insurrection among the Moguls of the Deccan, which was incited by the treacherous massacre of forty Mogul Amirs by the governor of Málwa. And this insurrection led to the establishment, in that year, of the first independent Muhammadan kingdom in the Deccan,—that of the Báhmani kings, whose capital was Kulbarga in the Nizám's dominions, about sixty-five miles in a south-easterly direction from Sholápur. In 1490, the governor who held charge of the Ahmednagar territory on behalf of the Báhmanis revolted, and, asserting his independence, founded the Nizám Sháhi dynasty, and built the city and fort of Ahmednagar. In the sixteenth century, the Nizám Sháhi kingdom was extended over the Konkan as far as Kalyán in the Thána district; but progress on other sides was checked by the Fáruki dynasty in Khándesh and the Báhmani and Bijápur kings, whose dominions surrounded the state. The history of the state is, in fact, the history of the local wars in which it engaged to extend its rule or to maintain its independence, until it was subdued by the Moguls in 1599. But soon after that, acquiring its independence under Malik Ambar, it enjoyed a gleam of prosperity again, until it was finally subverted by Sháh Jahán in 1636. Marátha inroads commenced in the reign of Aurangzeb, who died at Ahmednagar. And, on the decay of the Mogul power after him the fort was surrendered to the Maráthás in 1759. The Peshwa granted it to Scindia in 1797. And in 1803 it capitulated to the British under Wellesley. It was restored at the peace. But in 1817, after the fall of the Peshwa, it was ceded to the British. The district has now been re-surveyed and re-assessed, the original survey guarantee, made between 1841-42 and 1875-76, having expired between 1870-71 and 1885-86.

Revenue.

The amount collected in 1892-93 as land revenue was Rs. 16,39,100; excise, Rs. 1,23,900; stamps, Rs. 1,20,500; income tax, Rs. 47,400; registration, Rs. 29,000; and law and justice, Rs. 13,900. Forests proceeds amounted to Rs. 54,300. And the total local funds revenue was Rs. 1,65,400. During 1891-92, the four existing municipalities raised an income of Rs. 1,00,800; the municipal accounts, it may be noted, are not incorporated with the Government accounts. There are 281 schools, of which two are High Schools

CIVIL DIVISIONS OF BRITISH TERRITORY. *Central Division.*

(the management of one of them is conducted by the local Education Society, and of the other by the American Mission), and 229 are middle class and primary schools.

KHÁNDESH.

Area, 9,943 square miles; Population (1891), 1,460,851: Revenue, Rs. 54,05,130.

Description.

Khandesh lies between 20° 8′ and 22° 7′ north latitude and 73° 42′ and 76° 28′ east longitude. It is on both banks of the Tápti, which runs east and west through the district. On the north lie the Sátpuda Hills; on the south the Sátmála, Chándor, or Ajantá range divides it from the Nizám's territory; and a smaller range of hills separates it from Násik on the south-west. The western boundary runs along a spur of the Sahyádris to the Tápti, and thence, touching the Akrani states, to the Narbada. On the east, it is bordered by the Central Provinces and the Berars, with no marked features to divide it from them. The valley of the Tápti is rich and well tilled, until it enters on a belt of forest in the west; the north must have been cultivated and prosperous at some former time, but is now comparatively waste and deserted. Irrigation is practised, especially from "bandhárás" or dams thrown across the streams, particularly on the Girna, and the Pánjhra, and there are three large tanks or lakes which also serve for irrigation. The forests are important, and occupy nearly a fourth of the whole area; they lie chiefly on the hills to the west and south-west but the country is bordered by hills, and by lands unsuited for cultivation, which will eventually be covered with forest.

Population.

Kunbis form the bulk of the population, and appear to have come up the Tápti valley into the district from Gujarát, about the eleventh century. The Ahirs arrived before them, and form a large element in the population. The Bhils are mostly found in the Sátpudás to the north; but it is probable that there is a strong Bhil strain in the population of the plain also. Musalmáns also are found,—the descendants of men who came in at the Muhammadan conquest, and of Arab mercenaries; and Maráthás, the sons of those who settled under the Peshwa's rule. [illegible] The Kunbis are very skilful husbandmen, but careless in money matters. [illegible]puts and Musalmáns are slovenly workers. The Vanjáris have taken to tillage, since the time when carts and railways put a stop to their carrying trade. The Bhils and Kolis are small landholders, or hire fields from Kunbis on the share principle. When field work is not pressing, the Kunbis and Musalmáns employ their carts in the carrying trade, Kolis catch fish and grow vegetables, Dhangars spin wool and weave blankets, and Vanjáris deal in cattle and make large quantities of hempen twine.

Crops.

The cultivated area amounts to 32,15,474 acres; and 3,97,572 acres are still uncultivated, chiefly in the west. The chief grain crops are bájri, jowári, and wheat; kulith and gram among pulses and gingelly and linseed among seeds: and a very large area is under cotton. Special efforts to improve the quality of the cotton have been made for fifty or sixty years past: the cultivation of exotic varieties has not spread; but the poorer native cotton has to a large extent been displaced by Hinganghát and Dhárwár varieties.

Roads.

At the beginning of British rule, there were no made roads; and the first to be constructed was the through road from Bombay to Agra, *viâ* Málegaon and Dhulia. Since the time when the Local Funds Act was passed, road making has made considerable progress, and some of the passes through the hills have been opened to cart traffic. But the country still requires better opening out in this way. The G. I. P. Railway was opened between 1861 and 1865; and for 82 miles it runs north-east to Bhusával, where it divides, one branch going to Jábalpur and Alláhábád, and the other to Nágpur and Calcutta. The ancient trade routes ran across the country from Paithan to Broach, and from Burhánpur to Surat. About 1824, the export of Berár cotton was diverted from Bengal to Bombay, and in the carrying trade,—the railway not being then available,—there were engaged very large numbers of pack bullocks, which, however, were subsequently displaced to some extent by carts. The railway has naturally now attracted the traffic, which has increased very largely since its opening. But the extreme west of Khándesh still finds an outlet for its trade by road to Surat. The chief imports are salt, metals, cocoanuts, dates, and piece-goods. The exports consist of cotton, grain, oil-seeds, earth-nuts, forest produce, hides and horns, and ghee. There are now 74 steam factories at work, for cotton pressing and ginning, and one for spinning and weaving. Blanket-weaving is carried on all over the district. The other manufactures are small and unimportant.

History.

Here, and in the following accounts, it is unnecessary to recapitulate the history of the Hindu period, for which reference may be made to the account of the Ahmednagar district. The first Muhammadan invasion of Khándesh took place in 1295: and about the middle of the fourteenth country Khándesh was administered by governors of the kings of Delhi. Later on, after the successful revolt of the Báhmani dynasty to the south, the Fárukis, from Gujarát, established themselves in Khándesh, and made Burhánpur their capital. They reigned until 1599, when Akbar captured Asirgad, and Khándesh became a part of the Delhi empire. In the middle of the seventeenth century, it rose to great prosperity; the presence of the court and the army tending to enrich the province. The western districts felt the first shock of the Marátha raids in 1670. Shivaji overran and sacked the country in 1675. And until the death of Aurangzeb, Khándesh was a battle-ground for the two races. Soon after that event, the Maráthás obtained the "chauth" or tribute of the district; and they finally completed their conquest in 1760. But, with the establishment of Marátha power, there arose dissensions among their chiefs; and Khándesh was repeatedly exposed to the ravages of hostile armies, the most pitiless

being that of Holkar (1800—1803), when the British siding with the Peshwa under the terms of the treaty of Bassein, defeated Scindia at Assaye and Adgaon, and occupied Khándesh. On the conclusion of peace, the British retired; but the country continued to suffer extremely from Bhil depredations, and from Pindhári raids in 1816. In the next year, the Maráthás formed their last confederacy against the British, when Holkar was overcome at Mahidpur, and the Peshwa at Kirkee and Ashti. The Khándesh forts, held by Arab mercenaries, were reduced soon after; and the war ended with the capture of Asirgad in 1819. The Bhils, however, continued to ravage and plunder; and, although for some years expeditions were sent out against them, the country was still unsafe, until kindly measures were taken in 1825 by the establishment of Bhil agencies, and recruits were sought for, to raise a Bhil corps.

Administration of the land.

On the occupation by the British, 1,146 Government villages were found entirely deserted, besides 413 which were uninhabited, but were partly tilled by persons living in the neighbouring villages; only 1,836 villages were inhabited. The establishment of order, and the advent of high prices, soon caused a rapid increase in tillage and revenue. But a subsequent fall in prices checked improvement; and progress was slow for several years. After 1832, the improvement began to be more marked, and went on steadily up to 1852. One of the first measures was the withdrawal from the district hereditary officers of power, the possession of which by them was found to be a source of oppression to the people. And the settlement of the revenue was then made direct with the cultivators, and not with the headmen of the villages. The revenue was fixed on the average payments of ten previous years. And, gradually, inequalities of measurement were reduced to a common standard. About 1830, it was found that the assessments were too high, and left no margin to the cultivator for improvement. Great reductions were then made in the rates on irrigated lands; the rates on dry-crop lands also were reduced, wherever this was found to be necessary; and liberal remissions were made. Still progress was slow; and no attempt was made to introduce a survey, which, it was felt, would be very costly, until 1852. In that year, as it appeared that the rates in Khándesh were higher than in other districts, it was determined to carry out a survey on a plan suited to a country where so much of the land was waste. The objects of it were misunderstood, and the military had to be called out. But, on the leaders being seized, the opposition died out, and the work was carried out between the years 1852 and 1870. Since then, the district has made a most marked advance. Its population has more than doubled; and the area under cultivation has nearly trebled. Cultivation has been pushed to the base of the hills; and it is only in a few parts that good land can now be found in any quantity; while wild beasts have been driven from the plains to the hills and the ravines. This remarkable development is, no doubt, in great measure due to the facilities offered by the railway for the export of produce to better markets, and to the great demand for cotton, which the district is in a position to satisfy.

Revenue.

The amount collected in 1892-93 as land revenue was Rs. 37,91,668; stamps, Rs. 5,83,222; excise, Rs. 6,31,684; income tax, Rs. 1,08,143; and forests, Rs. 3,80,413. The local fund revenue was Rs. 4,23,443. Besides Dhulia,—the head-quarters station,—there are 27 other towns which have been constituted municipalities; they obtain their revenues by miscellaneous taxes and octroi duties. The number of schools is 435 with 27,500 scholars. One is a High School; there are eight Anglo-Vernacular schools; and the rest are Vernacular schools. There are also twelve girls' schools.

NA'SIK.

Area, 5,940 square miles; Population (1891), 843,582; Revenue, Rs. 23,02,215.

Description.

Násik lies between 19° 33′ and 20° 53 north latitude and 73° 16′ and 75° 6′ east longitude. On the north and east lies Khándesh; on the south, Ahmednagar; on the east, the Nizám's territory; and the ghats divide it from Thána on the west,—the Dángs lying further to the north. The Chándor range of hills divides the valley of the Girna from the valley of the Godávari. Along the western gháts, the country is rugged and broken; while the centre and eastern parts of the district consist of open plains. In Peint, the country partakes of the nature of the Konkan, and is in part about 600 feet lower than the rest of the country which is from 2,000 to 1,300 feet above the level of the sea. The forest covers 1,278 square miles and 578 acres,—the lines of hills at Saptashring and Peint being fairly covered with trees.

Population.

Besides Musalmáns, who came in during the Muhammadan period, there appears to have been an immigration of Tambat fugitives from Gujarát, on the overthrow of Chámpáner in the Panch Maháls in 1484. The establishment of the Marátha power drew a large number of Brahmans into the district. And, under British rule, immigrants of all castes appear to have flowed in from all sides. The Bráhmans are largely represented, and Márwádis are said to have come into the district during the last sixty or seventy years, and, by dint of energy and enterprize, to have engrossed the business of money-lending. The Konkan Kunbis, who are late arrivals from the Konkan, occupy mostly the west, are in general very skilful and successful cultivators. The Kolis are found along the Sahyádris, and are active and fearless; of late years they have settled down to husbandry. The Bhils have spread from the north, and are still unsettled. The census of 1891 gives the details of population as follows:—Hindus, 776,824; Musalmáns, 42,059; Jains, 7,889; Pársis, 497; Jews, 108; Animistic, 12,612; and Christians 3,683.

Agriculture.

The total number of adult male agriculturists, including land-holders and cultivators and agricultural labourers, is 2,70,579; and the number of male adult non-agriculturists is 161,759. Of the cultivable land, 3·48 per cent. is lying waste. Irrigation from wells and *bandhárás* or dams has been practised for a considerable time, the *bandhárás* having been built from 60 to 160

CIVIL DIVISIONS OF BRITISH TERRITORY. *Central Division.*

years ago. Of late, Government have opened the Pálkhed canal (11 miles), and have improved and extended the Wadáli canal (8¾ miles). There are 275 *bandháras* or dams, in charge partly of the Executive Engineer for Irrigation, Násik, and partly of the same official in Khandesh. Bájri is the staple food; but wheat, jowári, nágli, rice, and gram are grown extensively, as well as tur, til, linseed, udid, kulith, khurasni, cotton, and sugarcane. Vineyards are to be found in Násik itself. Potatoes and ratalis also are grown.

Trade.

The Thal Pass into Násik from the coast has probably been a trade route from the time when the ancient Sopára, near Bassein, was a trading town. It rose into importance again when the Portuguese held Bassein, and the chief traffic from the interior now goes through this pass to Bombay. The first road made was the section of the Bombay and Agra road, through the Thal Pass to Násik and Chándor. The district is now provided with 515¼ miles of good roads, bridged, except over the large rivers; and with 57¼ miles of roads suitable for fair weather traffic only. The Bombay-Jabalpur Railway was opened in 1861, and runs through the Godávari valley for 110 miles; and in 1878 there was opened the Dhond and Manmád Line, of which about 22 miles are in this district. There is still a considerable cart traffic down the Thal Pass to the coast; but the bulk of the trade goes by the railway. The chief trade of the district is the export of grain. Nándgaon is the gate for trade between Bombay and the eastern parts of the Nizám's territory; and from this place the export of wheat and bájri to Bombay is considerable. To the Manmád railway station come cotton, wheat, and bájri, from Khándesh, for export to Bombay. Báglán, Dindori, and Málegaon export rice, wheat, sugar, and bájri, and timber goes from Peint, Dindori, and Igatpuri. The metal ware of Násik is held to be very superior in make and polish, and is exported to distant parts of India. Yeola is famous for its silk work, it was introduced in the beginning of the 17th century; and under the Muhammadan and Marátha rulers, the weavers had a monopoly; but in 1864, recognition of this had to be refused by the High Court; and since then many outsiders have taken to silk weaving; gold and silver thread is also made, as well as cotton goods; but the hand industry suffers from the competition of machine-made goods. Málegaon contains nearly 300 looms; but there the product is of an inferior quality. Málegaon, Sinnar, and Vinchur produce cotton cloth of various kinds and colours, and export it to neighbouring districts. There are two ginning factories in the suburbs of Málegaon, and one flour-mill in the city itself. A new ginning-mill has recently been established at Nándgaon by some of the local Native merchants.

History.

From the conquest of the Yádawas of Devagiri or Daulatábád, in 1318, the Musalmáns held the district for a long time. It remained under the governor of Daulatábád, on behalf of the kings of Delhi, till 1347. It then passed into the hands of the Báhmani dynasty, and in 1497 was taken by the Ahmednagar kings. On the overthrow of the power of the latter in 1637, Násik was embodied in the Mogul province of Aurangábád. About 1670, the Maráthás, under Shiváji, began to harass the district; and the country was much disorganized for many years, until the final overthrow of the Mogul power. For a time, Násik passed under the rule of the Nizám; but in 1760 he was forced to surrender Sinnar, and to make over the southern half of Násik to the Maráthás; and again in 1795, after his defeat at Khardá, he had to cede Khándesh and the northern parts of Násik, the latter being mostly granted to Holkar. Between 1802 and 1804 the district was subjected to the ravages of Holkar's army, and to the inroads of the Pindháris during Holkar's contest with the Peshwa. But, although Holkar was brought to terms, the effects of the disorders were continued by the predatory incursions of the Bhils. The latter were treated with the most savage cruelty; but order was not restored; and Arab mercenaries had to be employed by the local chiefs and land-holders for their own protection. In 1817, the Peshwa and Holkar declared against the British, but Holkar was soon defeated, and ceded his possessions in Khándesh and Násik. The Peshwa also was defeated in the field; and, as some of the forts in Násik were still held by his troops, operations to reduce them were promptly undertaken. Most of them surrendered without a struggle, but Rájdhair near Chándor had to be carried by assault. Trimbak surrendered after a short siege, and Málegaon, which was held by the Arabs, submitted after an obstinate fight. During the mutinies, Bhágoji Naik took the field to revenge personal injuries, and excited the Bhils to join him. Meeting with a little success at the outset, the disorder quickly spread. Trimbak was attacked; and Peint and Harsol were plundered. The disturbances, however, were finally suppressed by the destruction of Bhágoji's gang in 1859.

Administration of the land.

The British possessions in Násik have, since 1817, been enlarged by the cession of a few villages by Holkar in exchange for others near Indore, and by the lapse of the possessions of the Begam of Peint and of the Rája Báhádur. In 1818, the Násik territory was placed partly under Khándesh and partly under Ahmednagar. The portion allotted to Ahmednagar was made into a Sub-Collectorate in 1837, and in 1869 the other portion was added, and the whole was constituted a separate Collectorate. At first, the old system of management was continued; but farming the revenue was put a stop to. Crop rates were changed into acre rates; and for a few years there was considerable prosperity; but with a decline in prices, the poverty of the people became noticeable. Subsequently between 1840 and 1847 the survey was introduced in the plain country of the Násik Sub-Collectorate; and by this measure the revenue was reduced by nearly one-half. In the hilly country to the west, the assessment on dry-crop land was fixed at a lump sum, and was made recoverable from each entire village for a period of five years.—a plan which proved to be most successful. The portion of the district transferred from Khándesh was brought under survey in 1868. The effect of the survey in Násik has been an increase of 89 per cent. in the occupied area; and, as, in these parts, the rates have been revised on the expiry of the first guarantee, the revenue has been increased 53 per cent. above the amount collected in the period before the survey. The Igatpuri Táluka was resurveyed in 1885, and a revised original survey is being introduced into the Peint Táluka.

The revenue collected in 1892-93 was from land Rs. 18,04,027; stamps Rs. 2,49,149; excise, Rs. 1,95,548; and assessed taxes, Rs. 53,491. The revenue from local funds was Rs. 1,92,881, and the six municipalities made an income of Rs. 1,73,453.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Central Division.* Revenue.

POONA.

Area, 5,369 square miles; Population (1891), 1,067,800; Revenue, Rs. 24,14,871.

Poona lies between 17° 54′ and 19° 22′ north latitude and 73° 24′ and 75° 14′ east longitude. It is bounded on the north by the Akola Táluka of the Ahmednagar District; on the east, by Ahmednagar and Sholápur; on the south, by the Nira river, which separates it from Sátára and Phaltan; and on the west, by the Sahyádri Hills, which lie between it and the Konkan districts of Kolába and Thána. The country on the west is extremely rugged; and the spurs from the gháts, which enter the district, are numerous. Towards the east, the country opens out into plains. A considerable area has been put under forest. Description.

The district passed from the Yádawa dynasty which reigned at Devagiri to the Muhammadans between 1294 and 1312, and under the Báhmani kings the gháts were thoroughly subdued. On the disruption of the Báhmani kingdom, after the revolt of the governors of the provinces, the district of Poona fell to the share of the Ahmednagar kings; and from them it passed to the Moguls, when the Nizám Shahi dynasty was finally overthrown in 1637; but the country south of the Bhima was made over to Bijápur. The power of the Bijápur kings, however, was then declining. This gave an opportunity to the Maráthás, to unite and assert themselves; and in the end they succeeded in establishing a Marátha kingdom at Sátára. Intrigues at the palace there led to the supremacy of the Peshwas and the removal of the capital to Poona, where so many stirring scenes of Marátha history have been enacted. The town of Poona itself was a Jághir, granted by the Ahmednagar king to the grandfather of the great Shiváji; and in the Marátha wars it has more than once been taken and retaken. Holkar defeated the Peshwa under its walls; and the flight of the latter to Bassein led to the treaty by which he put himself under British protection and was reinstated by a British force in 1802. Unable, however, to maintain friendly relations, he attacked the British at Kirkee in 1817; and his kingdom then passed from him. History.

Agriculture supports more than half the population; and the area of arable land which is still unoccupied is only 0·7 per cent. of the whole area. Jowári and bájri are the principal crops; but wheat and sugarcane also are grown very largely. The district suffered considerably during the famine of 1876 to 1878, but has now recovered from it. In 1891-92, again, the district was threatened with a famine; but the danger passed over; and the loss from the scarcity which did prevail was not considerable. The original survey guarantee has expired; and the revision settlement has already been introduced through almost the whole of the district. Agriculture.

The Great Indian Peninsula and the Southern Marátha Railways run through the district and afford an outlet for its produce to Bombay and the Southern Marátha Country. The Khadákváslá and Nira canals, with their head-works, are the most important irrigation works in the district. Trade.

The land revenue collected during 1892-93 was Rs. 14,13,198; stamps, Rs. 2,74,523; excise, Rs. 5,33,727; and income tax, Rs. 96,889. Forest proceeds amounted to Rs. 96,534. The local funds receipts were Rs. 1,93,198; and the twelve existing municipalities raised an income of Rs. 3,86,296. There are 454 schools with an average attendance of 18,753 scholars; they include 414 primary schools, sixteen English (middle) schools, and ten High Schools, besides five technical schools for training in carpentry, smithy, drawing, printing, gardening, &c. There are also four colleges, the Deccan College, the College of Science, the Fergusson College, and the Training College. The only mills in the district are the Reay Paper Mill and the Deccan Silk and Cotton Mill both at Poona itself. Revenue.

SA'TA'RA.

Area, 4,821 square miles; Population (1891), 1,225,989; Revenue, Rs. 20,42,900.

The Sátára district lies between 16° 50′ and 18° 10′ north latitude and 73° 45′ and 75° 0′ east longitude. It is bounded on the north by the states of Bhor and Phaltan and the Poona district, from which latter it is divided by the river Nira; on the east by Sholápur and the Atpádi division of the Aundh state; on the south-east by the jághirs of Jath, Sángli and Miraj; on the south by the Athni táluka of the Belgaum district, and by the river Várna which separates it from the native state of Kolhápur; on the west by the Ratnágiri district, in the Konkan, below the Sahyádris; and on the north-west by the Kolába district. The district consists of three different tracts of country: (1) The hilly tract. This lies along the west of the district, on the crest of the gháts, and is for the most part thickly wooded. The rainfall here is excessive, amounting at Mahábaleshvar to from 270 to 300 inches in the year. The population of this part of the district averages some 259 to the square mile. (2) The intermediate tract to the east of the hilly tract. This comprises the valleys of the Krishna and of its tributaries the Urmodi, Tárli, and Várna. Here the land is of very fine quality, and the population abundant and well-to-do. This region amply supplied with water by the rivers just mentioned has the reputation of being secure against famine. (3) The dry tract lying to the east of the other two and consisting of the valleys of the Yarla and the Mán. Dependent as it is on the rainfall, it is subject to frequent scarcity, if not to actual famine; and the scarcity Description.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Central Division.*

of 1891 was, in this district, confined to and conterminous with this region. The density of population here varies between 190 and 100 to the square mile, diminishing gradually towards the east.

History.

On the overthrow of the Yádavas of Devagiri the district passed to the Muhammadans in 1312, and from them to the Báhmani kings. On the disruption of the Báhmani kingdom after the revolts of the governors of the provinces, the district came under the rule of the Bijápur kings. During the decline of this latter dynasty and the breaking up of the Mogul power, the Marátha chiefs found an opportunity to assert themselves and to lay the foundation of an independent kingdom with Satára as its capital. Intrigues and dissensions in the palace, however, led to the ascendancy of the Peshwas, who, in 1749, removed the capital to Poona, and degraded the Rája of Sátára into the position of a political prisoner. The war of 1817 closed the career of the Peshwas. The British then restored the titular Rája, and assigned to him the principality of Sátára. But in consequence of political intrigues with other princes, he was deposed in 1839, and his brother was placed on the throne. This prince died in 1848 without male heirs. The state was then resumed by the British Government. A titular Rája still exists, and is in receipt of a pension of Rs. 2,500 a month from Government. The district was brought under the regulations by Bombay Act III of 1863.

Population.

The population of Sátára consists principally of Hindus, 94·8 per cent.; Musalmáns, 3·5 per cent.; and Jains, 1·5 per cent. The most noteworthy feature under this head is the small percentage of Muhammadans, which is far smaller in this district than in any other. The Jains are to be met with chiefly in the villages in the south of the Válva and Tásgaon tálukas. They bear the reputation of being very laborious agriculturists, and contrast very favourably with their neighbours the Maráthás and Kunbis. Of the Hindu population, 60 per cent. are Maráthás or Kunbis in almost equal proportions; 10 per cent. are Mahárs; 5 per cent. Bráhmans, and 4·5 per cent. Dhangars. The Dhangars are mostly to be found in the hilly tract. They are a good-looking muscular race, and are easily recognized by their dark colour. They formerly formed a large proportion of Shivaji's infantry; now, though as a rule very poor, they are a law-abiding race. The Bráhmans of the district consist, roughly, two-thirds of Deshasthas and a quarter of Kokanastha and Karhád Bráhmans; the remainder is made up of 49 different sub-divisions of the caste, of which the Shenvi is the most numerous.

Administration of the land.

For administrative purposes the district is divided into eleven tálukas, ranging in area from 319 square miles (Sátára) to 628 square miles (Mán), and in population from 192,000 (Walva) to 62,800 (Mán). The revision survey rates have been introduced into the five eastern tálukas and Wái. In the remainder of the district land is held under the old survey settlement of 1853-56; but the new survey is already finished, and the new rates will very shortly be declared. The villages of this district vary greatly in size; those in the hilly tract often consisting of only twenty or thirty inhabitants, paying an assessment of sometimes less than ten rupees, while in the south of the wealthy intermediate tract villages of ten thousand inhabitants are to be found, which pay some seven or eight thousand rupees per annum to the land revenue. An attempt is being made to introduce the provisions of the Sanitation Act of 1889 into the larger villages.

Agriculture.

Agriculture supports about three-quarters of the entire population. In the hilly tract náchni is the chief crop; but rice is also grown in the valleys especially along the Koyna river. In this part kumri cultivation, though restricted, is still much in vogue; the people have also the practice of collecting dry wood of every description, and leaves, and burning them on a selected site which is then used as a seed-bed, the seedlings being afterwards transplanted. This tract being mostly valuable forest, strict supervision has to be exercised, lest these fires should spread to the neighbouring trees, in which case unlimited damage might easily be done. In the remainder of the district jowári is the staple food and crop, though some bájri and wheat is cultivated. In the intermediate tract along the Krishna sugarcane is largely cultivated, as also *bhuimug* or earthnuts; and the latter are exported in very great quantities to Bombay and thence to Marseilles and Italy, where it is stated they are largely used in the manufacture of olive-oil. At Mahábaleshwar and Panchgani potatoes are grown for the supply of the Bombay market. It is stated that the climate of Panchgani is well suited for the cultivation of coffee; but this industry needs development. The Krishna Chikli and Rewadi canals, the Yerla and Mán river works, and the tanks at Nehr Maini and Paigli are the irrigation works of which the value is most felt in this district. Besides these there are two great irrigation works situated in this district, the influence of which is felt more in other districts; these are the Bhátghar tank and the Mhaswad tank which water respectively parts of the Poona and Kholápur districts. Of the total cultivable land in this district, only 2·0 per cent now remains unoccupied; of this the greater portion lies in the dry eastern tract. The Dekkhan Agriculturists' Relief Act is still in force in this district. The people of the hilly and intermediate tracts, however, are not much in debt; the former having no credit and not being extravagant in any way, and the latter being, on the whole, wealthy.

Trade.

The main exports of the district are grain and oilseeds. Next to these come blankets and a small amount of coarse cotton cloth. Besides these some chillies, *gul* (coarse molasses) and tobacco are exported, with a trifling amount of raw cotton. The imports are piece-goods hardware and salt. The Southern Marátha Railway runs from north to south through the whole length of the district, and has greatly developed the trade with Poona and Belgaum. Naturally it has largely diminished the cart traffic on the Poona-Belgaum road; but the road-borne traffic with Chiplun on the coast via the Kumbhárli Ghát is still very considerable. The exports

along this latter route are jagri, tobacco, blankets, and cloth; and the imports are spices, salt, cocoanuts, and sheets of corrugated iron. The trade centres of the district are Wái, Sátára, Karád, Tásgaon, Ashta, and Islámpur, all lying on or near the Krishna and within reasonable distance of the railway. Blankets and coarse cloth are woven throughout the district as domestic industries. Shirála is famous for its brass work, especially for its lamps.

Revenue.

The revenue collected in 1892-93 was land revenue, Rs. 16,86,800; stamps, Rs. 1,37,300; excise, Rs. 1,06,400; income-tax, Rs. 42,800; forest, Rs. 69,600; and local funds, Rs. 2,41,700. The thirteen municipalities in this district raised a revenue of Rs. 1,25,800. There are 284 schools, of which 278 are primary, 5 middle class, and one a High School.

SHOLA'PUR.

Area, 4,542 square miles; Population (1891), 750,689; Revenue, Rs. 14,10,647.

Description.

This district lies between 17° 10′ and 18° 32′ north latitude and 74° 42′ and 76° 15′ east longitude. It is bounded on the north by Ahmednagar; on the east by the Nizám's territory and the Akalkot state; on the south by the Bijápur district and some of the Southern Marátha jághirs; and on the west by Sátara and Poona and the states of Phaltan and Aundh. Except in the Karmála and Bársi tálukas where there is a good deal of hilly ground, the district is generally flat or undulating. It is very bare of vegetation, and presents almost everywhere a bleak treeless appearance. The chief rivers are the Bhima, and its tributaries the Mán, the Nira, and the Sina, all flowing towards the south-east.

History.

The district passed from the Báhmani to the Bijápur kings and from the latter to the Maráthás. In 1817 it was ceded to the British and was constituted a part of the Poona Collectorate. But in 1838 it was made a separate collectorate. It suffered severely in the famine of 1876 to 1878. And lying, as it does, in a tract of uncertain rainfall, it is peculiarly liable to scarcity which may at any time deepen into famine. Much however has been done to protect it by canals and by the construction of tanks such as those at Ekruk and Ashti and more recently at Mhaswad in the Sátára district. At the close of 1891-92, less than one per cent. of the cultivable area remained unoccupied against 14 per cent ten years ago. The staple crop is jowári; but a considerable area is also under pulses and oilseeds. The survey settlement was introduced in 1839-40; and the original guarantee having since expired, revised rates have been introduced into the whole district, excepting the tálukas of Sángola and Pandharpur, where they will be shortly announced.

Trade.

The produce of the district finds an easy outlet by the G. I. P. Railway to Poona and Bombay. In addition to this line, the Southern Marátha Railway from Hudgi to Bijápur and Gadag runs through the south-east corner of the district. The chief exports are cotton, oil, oilseeds, *ghi*, turmeric, and cotton cloth. The imports are salt, piece-goods, yarns, gunny bags, and iron-ware. The silks and cotton cloths, which are made locally, still bear a good name. Blankets are woven in large numbers. And there is a spinning and weaving mill at Sholápur itself. Latterly some ginning factories and presses have sprung up at Bársi, which is the chief outlying centre of trade in this district.

Revenue.

The revenue collected in 1892-93 from land was Rs. 10,64,779, and from excise Rs. 1,67,640. In 1892-93, the forest collections were Rs. 39,624; local funds, Rs. 1,34,620; income tax, Rs. 45,530; and stamps Rs. 93,074. The revenue of the five municipalities was Rs. 2,70,487. There are 277 schools in the district, of which 269 are primary and 6 secondary; the remaining two are High Schools, one a Government school at Sholápur and the other a municipal school at Pandharpur.

SOUTHERN DIVISION.

Southern Division.

The Southern Division contains a total area of 24,931 square miles, and a population according to the general census of 1891 of 5,008,063 souls. It yields a gross revenue of Rs. 1,29,28,920, and comprises the districts of Belgaum, Dhárwár, Bijápur, Kánara, Ratnágiri and Kolába. The district of Bijápur was known as Kaládgi until the 1st April 1885 when the head-quarters were removed from Kaládgi to Bijápur. The district of Kolába has been increased by the addition of the Pánvel and Karjat tálukas (together with their respective mahals of Úran and Khálápur) which were transferred from the Thána District from the 1st October 1883 and the 1st November 1891 respectively.

BELGAUM.

Area, 4,674 square miles; Population (1891), 1,013,261; Revenue, Rs. 24,74,915.

Description.

The district of Belgaum lies between 15° 23′ and 16° 58′ north latitude and between 74° 5′ and 75° 28′ east longitude. It contains a total area of 4,674 square miles and a population of 1,013,261 inhabitants according to the census of 1891. The district is bounded on the north by the States of Miraj and Jath and a portion of the Sátára Collectorate; on the east by the States of Jamkhandi, Mudhol and Rámdurg; on the south by the Dhárwár and Kánára Collectorates; and on the west by the States of Kolhápur and Sávantvádi and by the Goa territory. The principal rivers, none of which are navigable, are the Krishna flowing through the northern, the Ghatprabha through the central and the Malprabha through the southern portion of the Collectorate. The country forms a large plain studded with solitary peaks;

CIVIL DIVISIONS OF BRITISH TERRITORY. *Southern Division.*

to the north and east it is open and well cultivated, but to the south-west it is intersected b spurs of the Sahyádri Range thickly covered with forest. Of the total population of 1,013,26 or 216·7 persons to the square mile, 86·1 per cent. are Hindus; 7·9 per cent. Muhammadans 0·7 per cent. Christians; 5·1 per cent. Jains; and ·005 per cent. Pársis. The language spoken are chiefly Maráthi and Kánarese; the former in the south and west and the latter i the north and east of the Collectorate.

History.

The district was about the middle of the fourteenth century partitioned between th Hindu kings of Vijayanagar, who held the portion south of the Ghátprabha, and the Empero of Delhi, who held that to the north. On the foundation of the Bijápur dynasty in 1347 th territories contained in the latter half fell under the sway of the Bijápur kings, wh subsequently in 1473 took the city of Belgaum and conquered the southern division als During the next hundred years the Vijayanagar kings made numerous efforts to recove their territories, in which they were assisted by the Portuguese, but they failed to make an lasting conquests and were completely overthrown in the battle of Talikot (1565). Fo the next hundred and twenty years Belgaum may be said to have remained part of th territories of the Bijápur kings. On the overthrow of Bijápur at the hands of Aurangze in 1686, the district passed under the Moguls and was granted as a jághir to the Naváb o Sávanúr, who subsequently had to relinquish a share in it to the Nizám. Some part of i however, appears to have been in the hands of the Maráthás. About 1776 the whole countr was over-run by Hyder Ali, but was subsequently retaken by the Maráthás with th assistance of the English. In 1818 after a period of great disorder during which th country was alternately over-run by the troops belonging to Scindia, the Kolhápur, Nipán and other chiefs, the country passed to the English and became part of the district o Dhárwár, from which it was separated in 1836.

Trade.

The chief occupations of the people are agriculture and weaving. There is also considerable trade in cloth and silk. A factory for spinning cotton yarn was establishe at Gokák near the falls by Messrs. Ritchie, Stewart and Co. in the year 1887. Th mills are worked by water power equal to 750 horse power supplied from the fall of th Ghátprabha from a height of about 170 feet. The average daily number of labourer employed in the factory is 1,206. The Gokák Canal, which was under construction i 1882-83, has since been completed. The West Deccan Section of the Southern Maráth Railway crossing the district from north to south was opened by the Southern Maráth Railway Company in the year 1887. The line passes through the Khánápur, Belgaum Chikodi, Gokák and Athni tálukas. A considerable traffic which used to pass by the Poona Harihar road is now carried by the railway. At Londa, a station in the Khánápur Táluka the West Deccan Section connects with the Bellary-Mormugão line and in the spring large amount of produce finds its way to the sea by this route. The principal agricultura products are rice, jowári, wheat, bájri, náchni, pulses, cotton, tobacco and sugarcane. Th chief exports are rice, jágri and tobacco.

Agriculture.

Of the total area of 2,835,843 acres, 2,189,747 acres are returned as culturable, of whic 2,137,058 or 75·3 per cent. of the whole are actually under cultivation. The period fo which the original settlement was guaranteed having expired, the revised rates of settlemen were introduced into the district as follows:—In the Gokák táluka in 1884-85, in th Sampgaon and Athni tálukas in 1885-86, in the Chikodi táluka in 1886-87, and in th Belgaum and Khánápur tálukas in 1888-89. They had been introduced in the Parasga táluka in 1880-81.

Revenue.

The total revenue of the district amounted to Rs. 26,94,080, of which Rs. 15,66,742 wer on account of land revenue and Rs. 1,26,072 were the proceeds of local fund cess. O the remainder, Rs. 1,89,973 were derived from stamps, Rs. 3,30,253 from excise, Rs. 48,68 from assessed taxes and Rs. 3,39,267 from forests. The six municipalities in the distric raised an income of Rs. 93,093.

DHÁRWA'R.

Area, 4,603 square miles; Population (1891), 1,051,314; Revenue, Rs. 32,42,318.

Description.

The district of Dhárwár lies between 14° 17′ and 15° 50′ north latitude and 74° 48 and 76° east longitude. It contains an area of 4,603 square miles and a population o 1,051,314 inhabitants. It yields a gross revenue of Rs. 34,32,393. Situated in the south east corner of the Bombay Presidency, the district is bounded on the south-west, soutl and east by Mysore, the Bellary Collectorate of the Madras Presidency and the Raichor Doab; and on the north and west by the Bijápur, Belgaum and Kánara Collectorates of th Bombay Presidency. The western portions of the district in the neighbourhood of th Sahyádri Range are rugged and hilly; but towards the east the land falls away into plain of black soil, with only occasionally a detached peak or group of hills. The chief river are the Malprabha on the north and the Tungbhadra on the south.

Population.

Of the total population of 1,051,314, or 228·40 to the square mile, 85·96 per cent. ar Hindus. The most influential classes of the community are the Bráhmans and Lingáyats The language of the district is Kánarese; but Maráthi is also spoken to some extent.

History.

The history of the Dhárwár District is practically the same as that of Belgaum, whicl was included in it until 1836.

Trade.

Agriculture is the chief industry of the district. The principal products are cotto —indigenous and exotic—, jowári, jagri, and oils of various kinds. Spinning and weaving als

forms the occupations of a considerable number of people in Hubli, Gagad, Ránebennur and other places. Some twenty-four cotton ginning and pressing companies have been started in and near the towns of Hubli and Gadag. These are the chief trade-centres of the district.

Agriculture.

Of the total area of the district (2,872,264 acres), 1,565,376 acres are occupied unalienated, 762,674 acres are occupied alienated, 47,345 acres are cultivable unoccupied, and 496,869 acres (or about 17 per cent.) are unculturable. The area actually under tillage is 2,328,050 acres.

Revenue.

The total revenue of the district amounted to Rs. 34,32,393, of which Rs. 25,26,489 were land revenue, and Rs. 1,89,875 local funds. Of the rest Rs. 1,86,088 were derived from stamps; Rs. 3,80,924 from excise; while assessed taxes yielded Rs. 70,119 and forests Rs. 78,898.

BIJÁPUR.

Area, 5,668 square miles; Population (1891), 796,339; Revenue, Rs. 21,22,130.

Description.

The district lies between 17° 28′ and 15° 48′ north latitude and 75° 24′ and 76° 31′ east longitude. The area of the district is 5,668 square miles. On the north it is separated by the Bhima from Sholápur and Akalkot; on the east and partly on the south lie the dominions of the Nizám: the rest of the southern boundary between it and Dhárwár is the Malprabha river; and on the west are the states of Mudhol, Jamkhandi and Jath. The district is very compact; the climate is dry and healthy. The rainfall is irregular both in amount and distribution. The district is consequently liable to famine or scarcity. The district may be divided into three belts, the northern belt, or the country north of the latitude of Bijápur, is a tract of barren treeless upland with occasional narrow valleys, to which cultivation is chiefly confined; the central belt, or the country south of Bijápur and north of the river Krishna, which contains the rich Don valley, the granary of old Bijápur, but is otherwise of the same character as the northern belt; and the southern belt, or the country south of the Krishna, which contains ranges of hills of varied geological formation, now included in the forest area, with valleys of red soil, but on the bank of the Krishna and in a large part of the Hungund táluka are large tracts of fertile black soil. The Bhima, the Don, the Krishna, the Ghátprabha and the Malprabha are important rivers which flow throughout the year. The total population according to the Census of 1891 is 796,339, or 140·5 per square mile. The proportion of population dependent on agriculture is about 68 per cent.

History.

The town of Bijápur is famous in history as the capital of the Adil Shahi dynasty, whose founder, Yusuf Adil Shah, received the district as a jághír in 1481 from the Bahmani king. He succeeded in making himself independent in 1489, and from that date until 1686 his family occupied the throne. His grandson, Ali Adil Shah, defeated the Hindu king of Vijayanagar in 1565 and brought the whole of the Deccan and Karnátak, at present included in the Bombay Presidency, under his sway. Bijápur was at this period one of the largest and best fortified cities in India. The munificence of its kings also provided it with magnificent public buildings, many of which exist in an almost perfect state of preservation to this day. In 1656, after nearly two hundred years of prosperity, the fortunes of Bijápur began to decline. Aurangzeb appeared before its walls and was on the point of taking it when the news of his father's imminent death recalled him to Delhi. His generals, however, carried on the operations, and for the next thirty years the district was the scene of constant struggles between the Mogul and Adil Shahi forces, the Maráthás, who now appear in the history of the district for the first time, taking one side and then the other as it suited their interests. Finally in 1686 after a long siege the city was taken by Aurangzeb. From this time the prosperity of the district decayed with startling rapidity. On Aurangzeb's death it passed to his son, Kám Baksh, and from him to the Nizám of Hyderábád. From the latter again it passed in 1760 to the Maráthás, whose misrule completed the devastation that the political vicissitudes of the previous seventy years had begun. When Sir James Mackintosh visited the place in Bombay the country to the north of the city was little more than a desert and the Marátha Governors had wrought untold ruin to the beautiful mosques and other buildings, carrying off the carved windows and doors and tearing beams out of the ceilings and floors merely for the sake of the timber. In 1818, on the overthrow of the Peshwa, the district passed to the Rája of Sátára, and on his death in 1848, to the English. At first part of Sholápur, it was made into a separate district with Kaládgi as the head-quarters in 1864. In 1885 Bijápur was made the head-quarters of the district.

Trade.

A considerable number of the people still earn a living as weavers, particularly in the larger towns in the southern tálukas. The chief manufactures are cotton and silk cloth, of which considerable quantities are exported to Sholápur, Poona, and other districts. Carpets and blankets are also woven in some places. There are four cotton presses in the district, the yearly outturn of which is estimated at 12,930,904 lbs. The district is traversed by the East Deccan Line of the Southern Marátha Railway, which serves as an outlet for traffic and for the protection of the people from famine. There are several feeder roads which connect the railway with the main centres of traffic.

Agriculture.

Of the total area (exclusive of alienated lands for which statistics are not available) 85 per cent. is arable, and 96 per cent. of the arable land is occupied for cultivation. Jowári is the staple crop and the chief food of the people; bájri and wheat are also grown to a

CIVIL DIVISIONS OF BRITISH TERRITORY. *Southern Division.*

large extent, as is cotton in the black soil. Irrigation tanks are not numerous; and less advantage is taken of the large Muchkundi and Mumdapur tanks than was anticipated when they were constructed. The revised survey rates are in force throughout the district, and are about 33·6 per cent. above the rates of the original survey.

Revenue.

The total revenue of the district in 1892-93 amounted to Rs. 21,82,135, of which land revenue yielded Rs. 18,26,211; stamps, Rs. 87,858; excise, Rs. 1,75,124; and assessed taxes, Rs. 32,937. The four municipalities in the district had an income of Rs. 60,184.

KÁNARA.

Area, 3,941 square miles; Population (1891), 446,351; Revenue, Rs. 19,23,017.

Description.

The district of Kánara lies between 13° 55′ and 15° 31′ north latitude and 74° 9′ and 75° 10′ east longitude. The district is bounded on the north by Belgaum, on the east by Dhárwár and Mysore, on the south by the south Kánara district of the Madras Presidency, and on the west by the Arabian Sea and the territory of Goa. The district consists of two widely differing sub-divisions, one above and one below the gháts. The below-ghát portion is a fairly level plain along the coast varying from 5 to 15 miles in breadth and mainly consisting of rice fields and cocoanut gardens, being broken up into a number of small thickly wooded hills and valleys as it approaches the gháts. These latter are densely wooded with, in most cases, very large timber, unfortunately, however, in most cases only fit for firewood. The country above the gháts in the north is mostly forest mingled here and there with small and not very well cultivated rice fields; in the southern portion of the district, however, there are large and beautiful spice gardens. The eastern portion of the up ghát country is far more open and there is much more cultivation, the forests too consist of materially smaller timber. The main feature, however, of Kánara is that it is a forest country, and from Siddápur to within 4 miles of Haliyál, a distance of about 84 miles except for a few gardens, the whole of the main road runs through dense forest. It is well watered, the main rivers being the Kalinadi, the Gangawali or Bidthi river, the Tadri or Aghana Sini river, and the Sherawati river, which pierce the gháts and form magnificent waterfalls before they reach the coast strip.

Population.

The population according to the census of 1891 was 446,351, or 113·5 to the square mile. Of this population 402,644 are Hindus, 26,460 Mussalmáns, 15,639 Christians, while other classes only amount to 1,608. The language of the district is Kánarese, but in the coast districts and the Supá Petha Konkni and Maráthi are also spoken.

History.

Passing over its early history, Kánara was subject to the Vijayanagar kings when the Portuguese established themselves upon the coast. The country was said to be extremely rich and prosperous, and for a long period firmly withstood the efforts of the Muhammadan kings of the Deccan to spread their conquests to the south. Eventually by the crushing defeat at Tálikot (1565) and the sack of the capital city of Vijayanagar the kingdom decayed, and local chiefs assumed independence. The Musalmán confederacy then attacked the Portuguese settlement on the coast, but were unable to subdue them. The power of Bijápur, however, was generally established over the district, and continued until the Maráthás obtained an ascendancy about 1675; but with the advance of Aurangzeb the country fell under the Mogul after the fall of Bijápur in 1687, and the local Chiefs of Sonda and Bednur tendered their submission and their tributes. Some time subsequent to 1700 the Maráthás again obtained an ascendancy, and in 1763 Hyder Ali captured Bednur and obtained an immense booty. Sonda and the sea-coast were also subdued by him, and this brought Hyder into collision with the Maráthás, but he was able to maintain his conquests, and even to extend them as far north as the Krishna. War breaking out with the English, Tipu lost Honávar in 1784, and after the defeat and death of Tipu at Seringapatam, Sonda was annexed by the British in 1799. It comprised the Kánara country above the gháts, but the district had been so desolated by war and pillage that it was said that there was little to govern except trees and wild beasts.

Trade.

The main industry in the district is agriculture and its most important form consists in garden cultivation. This consists almost entirely of cocoanuts in the coast and above the gháts of areca nuts, cardamoms and black pepper. A large quantity of rice is also grown on the coast, and a smaller proportion above gháts, but the rice cultivation above gháts is stationary or decreasing in most cases, owing to the unhealthiness of the climate and the difficulty experienced in obtaining labour. There is now very little trade in the district except the export of the locally grown garden produce and of wood cut in the Government forests. When the district was first opened out by roads there was a very large trade from the Belgaum and Dhárwár districts and from Mysore, which passed through the district, and was exported to Bombay and other places through the sea-ports of Kárwár and Kumta. The opening of the Portuguese Railway to Marmagao and its connection with the Southern Marátha Railway have almost entirely diverted this trade, and have of course much injured the district, and roads formerly crowded with carts are now almost deserted. There is a little sandalwood carving carried out in Kumta and Honávar, but it is confined to a very few families and they are said to be dying out.

Agriculture.

The area of the district in the hands of cultivators was in 1892-93 acres 3,26,524 or an extent of 510 square miles, showing that the gross proportion of cultivated land to the

total area is only 12·9 per cent. There is, however, very little cultivable land available in the district, the country being essentially a forest one. The whole district has now been surveyed and assessments placed on all cultivable lands and the revision of the portion first settled (Supa and Haliyál) has now fallen due.

Revenue.

The total revenue of the district in 1892-93 amounted to Rs. 19,63,757, of which land revenue yielded Rs. 9,95,940; stamps, Rs. 80,912; excise, Rs. 1,98,468; assesed taxes Rs. 17,881; and forests, Rs. 6,29,816.

RATNA'GIRI.

Area, 3,912 square miles; Population (1891), 1,105,926; Revenue, Rs. 14,06,200.

Description.

The district of Ratnágiri lies between 15° 40′ and 18° 5′ north latitude, 73° 5′ and 73° 55′ east longitude: it contains a total area of 3,912 square miles. The district is bounded on the north by the state of Janjira and the Collectorate of Kolába; on the east by the district of Sátára and the Native States of Kolhápur and Sávantvádi; on the south by the State of Sávantvádi and the Portuguese territory of Goa, and on the west by the Arabian Sea. The district of Ratnágiri is formed by a narrow belt of hilly land from 300 to 500 feet high lying between the Indian Ocean and the Sahyádri hills with a total length of about 160 and a breadth varying from 30 to 45 miles. This rugged high land is fringed in many places with strips of low plains, along the sea-coast and creeks. With the exception of these lands, which are generally devoted to rice and garden cultivation, the soil is generally poor and the country difficult, abounding in hills and intersected by ravines, river-beds and salt water creeks.

Population.

Of the entire population of 1,105,926 or 282 persons to the square mile, 1,019,943 or 92 per cent. are Hindus and 85,983 Muhammadans and others.

History.

The district passed under several Hindu dynasties, of whom the Chálukyas were the most powerful, and early in the fourteenth century (1312) was overrun by the Musalmáns, who established themselves at Dábhol, but the rest of the country was practically unsubdued until 1470 when the Bahmani kings gained a complete ascendancy by the capture of Vishálgad and Goa. In 1500 the whole of the Konkan south of the Sávitri came under Bijápur when war with the Portuguese wrought grievous loss to Dábhol and other coast towns. The decline of the Portuguese was accompanied by the rise of the Maráthás, who under Shiváji established themselves in Ratnágiri (1658-1680), defeating the Bijápur armies, repelling the Moguls, and overcoming the Sidis and Portuguese. For some years after this the Sidis held possession of part of the district. The successes of the pirate Ángria led to his being appointed admiral of the Marátha fleet and to his obtaining part of Ratnágiri as his principality. In 1745 the English in conjunction with the Peshwa destroyed the piratical forts at Suvarndurg. In the next year Vijayadurg was taken after the destruction of the whole of Ángria's fleet. For these services the Peshwa ceded Bánkot and 9 villages to the British. In 1765 Málvan and Redi were reduced, but the former was restored to the Rája of Kolhápur on his promising to abstain from piracy, and Redi was given to the Chief of Sávantvádi. The wars between Kolhápur and Sávantvádi carried on for twenty-three years with varying success threw the country into great disorder as each party in turn became supreme. They finally entered into agreements with the British Government and ceded Málvan and Vengúrla, and arrangements were made for the cession of the Peshwa's dominions in Ratnágiri, but war breaking out in 1817 the country was occupied by a military force, and the forts were speedily reduced.

Industries and agricultural products.

Agriculture is the sole industry of the district, but in a few towns and villages there are made sarees and coarse blankets (kambalis). In the town of Rájápur gulál (red powder) is made and in Viziadurg and a few of the neighbouring villages ornamental work in buffalo horn; while Ratnágiri itself is celebrated for the inlaid furniture made at its School of Industry. There is one oil press at Chiplun, which works profitably during the fair season. A Bráhman grows and prepares arrowroot for use at Dápoli. Both these industries are at present of very insignificant proportions. A few cups and bowls are also made of soap-stone in the Málvan Táluka. The principal agricultural products are rice, nágli, wari and harik, cocoanuts and betelnuts. Of the total area of 2,510,156 acres 1,640,893, or 65·3 per cent. of the whole are cultivated and the remaining area is uncultivable. The survey settlement has been extended to the whole district.

Revenue.

The total revenue in 1892-93 was Rs. 14,06,200, of which Rs. 942,551 were land revenue. Of the rest stamps yielded Rs. 1,53,001; excise, Rs. 2,35,217; assessed taxes, Rs. 24,070; registration, Rs. 15,122; law and justice, Rs. 15,004 and other minor sources, Rs. 21,235. The receipts on account of local funds amounted to Rs. 1,43,014. There are 5 municipalities in the district with a gross revenue of Rs. 55,046.

KOLÁBA.

Area, 2,137 square miles; Population (1891), 594,872; Revenue, Rs. 17,60,140.

Description.

The district of Kolába has been increased in extent of late years by the addition of the Panvel and Karjat Tálukas (together with their respective Mahále of Uran and Khálápur) transferred from the Thána District from the 1st October 1883 and 1st November 1891 respectively. It has a length of about 90 miles north to south and an average breadth of about 25 miles east to west. This district lies between 72° 55′ and 73° 48′ east longitude and 19° 6′ and 17° 50′ north latitude. On the north it touches the Bombay harbour and the

CIVIL DIVISIONS OF BRITISH TERRITORY. *Southern Division.*

Sálsette, Kalyán and Murbád Tálukas of the Thána District; on the east it is separated from the Districts of Poona and Sátára and the Bhor State by the Sahyádri range; to the south lie the Dápoli and Khed Tálukas of the Ratnágiri District, while on the west the Habsan (Janjira) State cuts it off from the sea as far as Cheul and Revdanda, whence northwards its western boundary is the Indian Ocean.

History.

From the last of the Hindu dynasties the district seems to have passed under the Bahmani kings of the Deccan (1347—1489). The inland parts then appear to have been annexed by the Ahmednagar kings, but the sea-coast was held by the Gujarát kings until 1509, when they were supplanted by the Portuguese, who were allowed to build a fort (1524) at Revdanda by the king of Ahmednagar. Their power soon grew so formidable that the Ahmednagar king formed a coalition against them, but failed to dislodge them from Cheul and Bassein. The Moguls succeeded to the possessions of Ahmednagar, but soon after handed Kolába over to the king of Bijápur on payment of tribute (1636), who placed it under the Sidis of Janjira. In 1662 the district was ceded to Shiváji, who established the seat of his government at Ráigad; but war breaking out with the Moguls, the country was exposed to the ravages of the Moguls and the Sidis who had been appointed their admirals, and finally by the fall of Ráigad the control of the chief part of the district passed to the Moguls (1689). Kanhoji Ángria had by this time established himself at Kolába, a small island fort close to Alibág, where he supported himself by piracy, and gradually spread his power over Kolába and Thána. He defeated the Peshwa, but accepted a treaty by which he was made practically independent, and his sons held the coast from Bombay to Goa until 1756 when the stronghold of Gheria was destroyed by the English fleet. In the meantime the Maráthás had driven out the Portuguese from Thána and had obtained Cheul (1740). They also recovered the greater part of Kolába, and forced the Chief of Kolába, another descendant of Ángria, to pay tribute. The district fell into the hands of the British on the war with the Peshwa in 1817, though they had previously obtained the fort at Bánkot and 2 villages in return for their destruction of the fort of Gheria in 1756. The state of Ángria's Kolába lapsed to the British in 1840 on the death of the Chief without issue.

Trade and agriculture.

Lying as it does between the Sahyádris and the sea the district abounds in hills—some of them spurs of considerable length and height stretching irregularly westward at right or acute angles to the main range of the ghát, and others simple isolated peaks or detached ridges of elevated land. From the water shed along the east of the ghát numerous streams run westwards towards the sea; and up the larger of these the sea advances far, forming on such tidal creeks sea ports that lie as much as 30 miles inland. The principal creeks are the Panvel, Nágothna, Revdanda and Bánkot. These and others form highways for a considerable trade in rice and dried fish; on the first named lies Panvel—the largest town in the district, the trade there being still considerable—though rather declining owing to the opening of the railway direct from above the ghát to Bombay. On the Nágothna creek are Dharamtar the port for Pen, and during 5 months of the year for Alibág and Nágothna. Revdanda at the mouth and Roha some 18 miles up the Kundalika or Revdanda creek are the trade outlets for the portion of the district which is separated from the sea by the Janjira State; while Dasgaon, Mahád and Gongaon on the Sávitri or Bánkot creek are the trade centres for the southern portion. The Great Indian Peninsula Railway has no large trading towns close to it where it traverses a part of the Collectorate, but Karjat, the head-quarters of the táluka of that name, is slowly increasing in importance. Of places of importance the best known are the Elephanta caves in Bombay harbour. There are Buddhist caves at several places, the more important being near Mahád and at Kuda in the Mángaon táluka. Several of the hill and coast forts are interesting, notably Angria's fort at Alibág and Raigad, the stronghold and place of sepulture of Shiváji. The hill station of Mátherán is also situated in this Collectorate. Along the line of sea-coast are rich gardens of cocoanut and betelnut palms; by the sides and mouths of the northern creeks are wide expanses of flat salt land, marsh, or rice field or salt-pan, and inland are hills, large and small, many of which are clad with forest while the intervening valleys are fertile with rice fields. The hills run up into high peaks such as Cathedral Rock and Funnel Hill or are flat-topped like Mátherán. Their highest elevation is about 3,000 feet above sea level. In the south the forests have been very largely cut and the hills are nearly bare as also are the hills not included in forest further north. The reserved forest areas in Pen, Nágothna and elsewhere have a numerous growth of small teak and less valuable trees.

Population.

Of the total population of 594,872 or 266·7 to the square mile, 5,60,040 or 94 per cent. are Hindus and 28,938 or 5 cent. Muhammadans. The rest belong to various creeds and races. As in Thána, Brahmans and Prabhus form an influential element in the population. The Vanis are the traders, Agris are tillers of salt land and makers of salt, Kunbis are rice cultivators, Kolis are principally fishermen and sailors; Bhandaris are toddy drawers. The Katkaris and Thakurs are aboriginal tribes and employ themselves in cultivation of an inferior description and in collecting fire wood for sale. Musalmáns are chiefly found in the towns and claim to be descended from Arab and Persian settlers; they are known to have been a considerable community as early as the tenth century. The Beni Israels or Jews, of whom there are over 2,400, chiefly earn their livelihood by making and selling oil. The chief industries are the cultivation of rice, the extraction of oil, the preparation of the fibre of cocoanut, and the manufacture of salt and liquor; from the coast villages fish is exported in large quantities—some to Bombay—but the greater portion finds its way inland by the

different creeks. The supply of vegetables of various sorts and fruit to Bombay from the Alibág and Panvel tálukas has been increasing on a remarkably large scale, as also has the supply of fuel in small bundles from the Alibág, Pen and Roha tálukas. Grass is sent to Bombay in large quantities from the Panvel and Pen Tálukas, and timber is also exported there and above the gháts. The weaving of silk is practised at Revdanda on a small scale; the manufacture of cart-wheels at Panvel is a large industry. The principal monsoon crop is rice; nagli and wari are also to a considerable extent grown in warkas lands. Cold weather crops are of but little importance. Salt is produced in large quantities in the Pen and Panvel tálukas and the Uran Mahál. The working of the salt-pans in the Alibág and Roha tálukas was discontinued several years ago. The reclamation of marsh lands is attempted on a very large scale in the Alibág, Roha and Panvel tálukas and part of the Pen táluka. The manufacture of spirit, which is an industry entirely in the hands of Pársis, is restricted to Uran where there are numerous large distilleries.

Of the total area (excluding Inám lands which comprise 23,492 acres) of 1,296,062 acres, 679,787 acres are cultivated; 60,192 acres (including 55,548 acres of salt marsh land) are cultivable, though not now under cultivation and the remaining 556,083 acres are uncultivable unassessed waste.

Revenue.

The revenue under all heads in 1892-93 was Rs. 17,85,140. The land revenue receipts amounted to Rs. 11,36,290; the abkári revenue including opium was Rs. 3,55,764; stamps revenue about Rs. 1,05,852, and forest revenue about Rs. 1,62,234. The six municipalities in the district had an income of Rs. 66,962.

SIND.

Sind.

The Province of Sind lies between 23° and 28° 40′ north latitude and 66° 50′ and 71° east longitude. It contains an area of 46,612 square miles exclusive of the Native State of Khairpur, and a population in 1891 of 2,871,774 and yields a revenue of Rs. 93,21,447. It comprises the districts of Karáchi, Hyderábád, Shikárpur, Upper Sind Frontier, and Thar and Párkar.

KARA'CHI.

Area, 14,179 square miles; Population (1891), 564,880; Revenue Rs. 17,68,618.

Description.

The district of Karáchi lies between 23° 34′ and 26° 57′ north latitude, and between 66° 41′ 30″ and 68° 49′ east longitude, and is bounded on the north by Shikárpur; on the east by the Indus and Hyderábád; on the south by the sea; and on the west by the sea and Baluchistán or the territories of the Khán of Khelát, the river Hab forming for a considerable distance the line of demarcation. The greatest length of the district from north to south is 200 miles, and its greatest breadth from east to west 110 miles. The Karáchi District forming an immense tract of land stretching from the eastern mouth of the Indus to the Baluchistán boundary differs considerably in appearance from the general level of the Province of Sind by its possession of a hilly western region called the Kohistán. Numerous lateral ranges of considerable height here push forward into the plain from the Kirthar mountains and diversify the usually monotonous aspect of the arid surface by their spurs and off-shoots. From this lofty and barren tract intersected by deep and wide valleys, the general aspect of the country, as it runs south-eastward in a vast sloping plain, becomes more and more level, until in the extreme south the Indus Delta presents a broad expanse of low, flat and unpicturesque alluvium, stretching away to the horizon in one unbroken sheet, only varied by the numerous creeks communicating with the ocean. Large forests of babul and other trees fringe the river banks and impart a somewhat fresher appearance to the otherwise dreary landscape. The only other streams of any importance are the Hab, and the Malir, from which the city of Karáchi obtains its drinking water-supply. A few minor torrents take their rise among the western hills, but consist of dry watercourses during the greater portion of the year, only inundated on occasions when heavy rain falls on the higher ranges in which they have their sources. The Manchar Lake in the Sehwán Sub-Division forms the only considerable sheet of water in the district, and indeed in the whole of Sind.

History.

The first Arab invasion of the district dates from 713 A.D. They were followed in 1019 by the invasion of Mahmud of Ghazni. In 1351 the Samás originally a Hindu race conquered the province and established their capital, first at Sehwán and then at Tatta. Converted to the faith of Islám about the close of the 14th century, they nevertheless managed to retain their independence until 1521, when they were overthrown by Shah Beg the founder of the Arghun dynasty. In 1591 the province was conquered by Akbar, and it remained under the survey of the Mogul emperors until the break of the empire at the beginning of the eighteenth century. At this period the Kalhoras asserted their independence, but they in turn were conquered by Nádirsháh, who compelled them to pay tribute. Subsequently in 1783, the Tálpur Baluchis rose in rebellion and expelled the Kalhoras. They also in 1792 recovered Karáchi from the Khán of Khelát; but soon after divided into three branches, each ruling independently in a separate part of Sind. The British endeavoured to enter into friendly treaties with the Mirs, but their jealousy and mistrust of the motives of the Government prevented any cordial understanding, and in 1838 they offered considerable opposition to the march of British troops on their way to join in the Afghán War. After placing Sháh Suja on the throne the Mirs were required to pay the arrears of tribute due

CIVIL DIVISIONS OF BRITISH TERRITORY. *Sind.*

to the Afghán ruler and to permit of the establishment of a British force in Sind. Failure having been made in payment of the stipulated tribute, the Mirs were required to cede certain territory. The army, however, resisted this loss of independence, and attacking the Residency precipitated the conflict which ended in the annexation of Sind to the British dominions in 1843.

Agriculture.

Karáchi is essentially a Muhammadan district, the Hindus forming only a small proportion of the inhabitants. In the Karáchi Táluka cultivation exists only on a few isolated spots, and depends upon wells, springs or natural rainfall. Here the chief crops are jowari, bájri, barley and sugarcane, grown chiefly on the Malir plain, distant from Karáchi some 12 miles and easily accessible by rail. In Sehwán wheat is chiefly grown around the Manchar lake, and in the delta divisions of Jerruck and Sháhbandar, where numerous canals carry the waters of the Indus through the alluvial flats, rice forms the staple crop, but wheat, sugarcane, millets, cotton and tobacco are also grown. In the barren hills of Kohistán, agriculture is but little practised, except on hill-springs, or when heavy rain falls, the nomad population devoting itself almost entirely to grazing cattle in the southern plains, where abundance of forage springs up spontaneously after every fall of rain. The harvest seasons recognised in the district are three, *viz.*, kharif, sown in May and June and reaped in October, November and December; rabi, sown in November and December and reaped in March and April; and adhawa, sown in January and reaped in March. The Manchar, Western Nára and Pritchardwah supply the means of irrigation in Sehwán, the Baghiar in Jerruck and the Pinjári in Sháhbandar with numerous small canals.

Trade and communications.

The traffic of the district centres mainly in the town of Karáchi. The staple exports consist of cotton, wool, grain and hides. Extensive salt deposits occur in the Sháhbandar Division on the Sir Ganda Creek, a branch of the Indus, accessible for small craft of from 50 to 60 tons burden, but these are not worked. Salt is manufactured at the Maurypur Salt Works on the sea coast, a few miles distant from Karáchi, by artificial means and the supply is quite equal to the demands of the province. The North-Western Railway is a State line, formed by the purchase and junction of the Sind Punjáb and Delhi Railway, the Indus Valley State Railway, the Punjáb Northern, Sind Sagar and the Sind-Pishin Railways. It runs from Karáchi to Phulji in the Karáchi district, and onwards for a total length of 1,790 miles, and affords an outlet for local products and for the wheat traffic of the Punjáb and part of the North-West Provinces. The Karáchi harbour proper, the width of which varies from 3½ to 5 cables, is 232 acres in extent, with a depth of 22 feet and upwards at low water, of which 211½ acres are available as anchorage ground for vessels of the largest class, as well as a large space of shallower ground for country craft. The value of the imports and exports in 1843-44, the first year after the conquest, was Rs. 11,60,520 and rose to Rs. 19,56,74,735 in 1892-93. There are at present berths at the wharves for 5 ships at a time, but in consequence of the past and prospective increase of trade additional wharfage is to be immediately proceeded with, and four berths each 450 feet in length are to be added. The capabilities of the harbour without encroaching on the creeks could provide wharfage accommodation for 137 ocean-going steamers of the largest type. This would serve more than 4,000 vessels a year, allowing 12 days for each ship, and be more than sufficient for the number of ships that now pass through the Suez Canal. With existing facilities charter-parties are made out for only 10 days at Karáchi, and some of the large liners discharge and take in cargo in less than a week, sometimes.

Revenue.

The revenue system of Karáchi, indeed of Sind, has to accommodate itself to the manner of cultivation, which depends almost entirely upon irrigation. This system is explained in the chapter on the character of the Land Tenures, and, it is sufficient to say here, that irrigation settlement is in force in all tálukas but two. The revenue collected from land was in 1892-93, Rs. 10,94,426; from stamps, Rs. 2,02,348; from excise, Rs. 2,88,625; forest produce realised Rs. 67,370, and Rs. 1,15,849 were obtained from the income tax. The local fund revenue was Rs. 1,33,454, and the eight municipalities raised an income of Rs. 5,94,792 minus the loan of Rs. 5,96,000 raised by the Karáchi Municipality. There are 287 primary and 17 secondary schools with 14,476 scholars.

HYDERÁBÁD.

Area, 9,033 square miles; Population (1891), 918,646; Revenue, Rs. 26,73,221.

Description.

The district of Hyderábád is situated between the 24th and 27th degrees of north latitude and the 68th and 70th of east longitude. It is bounded on the north by the Khairpur State, on the south by the Runn of Cutch, on the east by the Thar and Párkar district, and on the west by the river Indus and a part of the Karáchi Collectorate. Its greatest length from north to south is 216 miles and breadth from east to west 48 miles, and its entire area is 9,033 square miles. The district is a vast plain interrupted only on portions of its eastern boundary by sand hills, and in the south by a small lime-stone range known as the ganja hills. This range is situated in the Hyderábád Táluka and runs nearly due south, parallel to the river for about 13 miles. There are two small conical hills in the Tando Division close to the Indus and immediately opposite to the Jerruck range. There are considerable areas of forest along the bank of the river, and avenues of trees mark the course of the irrigation canals.

History.

The history of the Hyderábád district is practically the same as that of the Karáchi district and need not be repeated.

The staple products of the district are wheat and jowári in the north, jowári and cotton in the Central or Hála Division, and rice and bájri in the south. Oil-seeds are also grown in places and sugar-cane is raised in the south. Gardens are not very numerous. The fruit grown consists chiefly of mangoes, limes, figs and small apples; but there are a few orange gardens in the Nausháhro Division, and a few peach gardens at Hyderábád. Native vegetables are grown in the vicinity of nearly all the towns and large villages. The rainfall is small and the cultivation is almost entirely dependent on canals from the river Indus which are maintained and cleared by the officers of the Irrigation Department mentioned above. In the north of the district there are a good many wells, the water from which is a valuable auxiliary in the cultivation of wheat crops. The land assessment is levied on survey numbers or fields according to rates fixed at the time of settlement for each kind of irrigation. Only such fields as are cultivated are assessed each year unless the period of fallow allowed is exceeded. Agriculture.

The construction of the railway from Hyderábád towards Umarkot as far as Shadi Pali in the Thar and Párkar district has very much facilitated the transport of agricultural produce from the eastern portion of the district, and the cultivators as well as the traders benefit in consequence. Articles imported can also be carried and sold at cheaper rates than formerly. There is communication by boat with parts of the district during the inundation season down some of the large canals, and particularly down the Fuleli, a large natural channel which was formerly a branch of the Indus. The imports consist chiefly of cloth, sugar, spices, and English-made articles, and the exports of cotton, wheat, oil-seeds and bájri, the three former going to Europe, and the last-mentioned to Cutch and the Desert portion of Thar and Párkar. The chief articles manufactured in the district are blankets, coarse cotton cloth, camel saddles, metal work, lacquered work, enamelling, and gold and silver embroidery. The demand for armour, shields, and sabres has died out with the decadence of the Mirs. There are 27 cotton-ginning factories in the district, 17 in the Hála Division and 10 in the Hyderábád Táluka. Trade and communications.

The revenue derived from land in 1892-93 was Rs. 19,30,630, from local funds Rs. 1,39,420, from stamps Rs. 1,56,658, excise Rs. 3,15,935 and income-tax Rs. 68,674. The forest produce realised Rs. 2,01,324, and the income of the 7 municipalities (1 in the town of Hyderábád, 5 in Hála Division, and 1 in the town of Tando Mahomed Khan) was Rs. 1,59,370. Revenue.

SHIKÁRPUR.

Area, 8,152 square miles; Population (1891), 915,497; Revenue, Rs. 34,49,573.

The district of Shikárpur lies between 27° and 29° north latitude and 67° and 70° east longitude. It is bounded on the north by Khelát and the Upper Sind Frontier district; on the east by the Native States of Bahawalpur, Jaisalmir, and Khairpur; and (with the Indus between) by the Nausháhro Division of the Hyderábád District; on the west by the Khirthar mountains, which separate it from Baluchistán; and on the south by the Khairpur State and the Sehwan Sub-division of the Karáchi district. The country is a vast alluvial plain, broken only by the Khirthar range on the west, and the hills near Sukkur and Rohri. A large tract also of the Rohri sub-division is covered with rolling sand-hills, and is, in fact, a portion of the great desert, which stretches through the States of Rájputána and the western border of Khairpur in Sind to the Runn of Cutch. Description.

The principal events in the history of this district up to the date of the annexation by the British are practically the same as those set out above in the historical account of Karáchi. Since then however the district has been enlarged by the addition of Ubauro, Mirpur and Saidábád, which were confiscated by Government in 1852 and added to the district owing to the misconduct of their ruler Mir Ali Murád Khan. History.

The survey settlement has been completed and all the tálukas except Rohri are under irrigational settlement. The assessment is taken on cultivated numbers fixed according to the class of irrigation received by the crop. Rohri is under a revision settlement. A little over ⅓rd of the arable land is occupied, the total area of cultivable land being 35,62,645 acres, whereof 13,48,696 acres were occupied during 1892-93. The principal crops of the district are rice, wheat, jowári, oilseeds (rape and sesame), pulses and a little bájri and cotton. Agriculture.

The North-Western Railway runs through the district on both banks of the Indus. The chief articles of export are wheat and rice, the former of which is sent to Karáchi and foreign ports. The trade through the Bolan Pass has almost entirely ceased, that from Afghánistán and Central Asia taking the Harnai Railway route. Its estimated value is not known. The principal manufactures are earthenware, metal vessels of all sorts, and coarse cotton cloths and leather articles. Trade.

The land revenue collected in 1892-93 amounted to Rs. 29,68,279 and stamp revenue to Rs. 1,91,770, excise yielded Rs. 2,03,130 and the income tax Rs. 86,394. The local fund revenue was Rs. 2,53,297, while the eight municipalities (3 having since been abolished) raised an income of Rs. 2,57,705, the total revenue of the district being Rs. 39,60,575. There are 611 schools (1 High School, 4 Anglo-Vernacular schools and 606 primary schools, local board, municipal and aided) with 22,119 scholars. Revenue.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Sind.*

THAR AND PÁRKAR.

Area, 12,728 square miles; Population (1891), 298,203; Revenue, Rs. 6,73,121.

Description.

The district of Thar and Párkar lies between 24° 13′ and 26° 15′ north latitude and between 68° 51′ and 71° 8′ east longitude. On its north lies Khairpur, and on its east the States of Jaisalmir, Malani and Jodhpur. The Runn of Cutch borders the south, and to the west is the Hyderábád district. The western part of this district comprising the Nára Valley is watered by the Eastern Nára, an old branch of the Indus taking off from near Rohri, to which a new head was cut by Captain (now General) Fife, R. E., in 1854. From this river have been excavated the Mithrao Canal and the Thar Canal, both yielding a perennial supply, and their branches; the presence of water while leading to the rapid extension of cultivation has created much jungle and marsh. Cattle disease and a virulent type of autumnal fever are consequently rife in this region. The most noticeable features of the Thar or desert tract are the parallel ridges or sand hills interspersed with open spaces varying from 400 yards to a mile or more in breadth. Water here is procurable only at depths varying from 40 to 60 fathoms. The land, though sandy, yields fair bájri crops, and cultivation is eagerly undertaken after rainfall wherever water lodges. Grass also grows abundantly and large flocks and herds are reared in this portion of the district. In some parts are lakes, which yield valuable supplies of salt. In the south-east is Párkar, remarkable chiefly for its syenite hills, supposed to be of volcanic origin.

History.

The country was ruled some 400 years back by the Sumras, from whom it was wrested by the Sodas, who in turn succumbed to the Kalhoras about 1750 A. D., after which period, except for a brief interval of Jodhpur rule, the district became subject to Sind. The Tálpur Mirs strengthened and also built a number of forts to overawe the people, who were lawless and addicted to robbery. The district of Párkar, especially, was the home of banditti who raided into Cutch and all the surrounding countries. The British Government therefore interfered in 1832, and through the agency of Captain (afterwards General) Roberts suppressed the maranders, keeping, however, posts of mounted men in the country for the preservation of order until the conquest of Sind itself in 1843. After that event the southern portion of the district was made over to the Cutch Agency, the remainder being attached to the Hyderábád Collectorate. The whole was brought under Sind in 1856. In 1859 a rebellion broke out in Nagar Párkar which was, however, quickly suppressed. Since this emeute the people have shown themselves law-abiding and contented and have advanced rapidly in prosperity.

Population.

The upper classes belong chiefly to the Soda tribe of Rájput origin; the Khosas, who at one time exercised considerable influence, are sturdy men, inured to fatigue and hard fare, but are slothful and improvident. Other branches of the Baluch tribes such as Rinds and Maris are also represented in this district, but only to a small extent. The Pallis, Vasans and Khaskelis of the valley came originally from Sind. Among the lower classes are Menghwars and Bhils, who are chiefly found in the Thar; these are, as a rule, inoffensive and industrious people, somewhat addicted, however, to petty thieving.

Agriculture and industry.

The land revenue which was originally settled for five years in the portion watered by the canals now known as the Nára Valley Division has been revised from time to time, and from 1893-94, regular irrigational settlement rates will be introduced. The provisions of the Land Revenue Code have been generally applied and the system of revenue administration is gradually being brought into accord with that obtaining in the other parts of the province. At present 55 per cent. of the arable area is under cultivation, but with the improvements under contemplation this will greatly increase. The Nára Valley tálukas (Sanghar, Khipro and Umarkot) have been formed into a separate sub-divisional charge, a step that has been rendered necessary by the rapid development of the district and the introduction of a more settled system of administration. The condition of the people is satisfactory. They are blessed with an abundant supply of water, and the soil when not overworked is sufficiently fertile. The inhabitants of the valley have now the further advantage of having a line of rail within easy reach of their fields.

In the remaining portion of the district, *i. e.*, the desert tálukas, the prosperity of the people depends on the amount of rainfall. If the rainfall proves insufficient, the crops fail, and there is no pasture for the numerous herds of cattle which form the riches of the bulk of the population, consequently the condition of the people at times becomes one of extreme hardship. In season of ordinary rainfall, however, their lot is not an unhappy one. The people for the most part are primitive in their habits and their wants are few and easily satisfied. The chief products of the Nára Valley are rice, bájri, wheat, cotton, pulses and oilseeds. Ghi and gum form the chief exports from the desert tract. Experiments attended with satisfactory results have been made with a view to the introduction of superior descriptions of wheat and cotton; as regards the former, the soft white variety has been successfully introduced in the Nára Valley, where the area under this cereal averages some 30,000 acres annually. The American Dhárwár cotton has showed fair promise, especially where sown on land irrigated by silted water. The manufactures are mostly of an unimportant character; the only articles worthy of special mention are blankets and camel saddles.

Trade and communication.

Means of communication both by road and canal have greatly improved during recent years. From Hyderábád a line of railway has been pushed forward to within 84 miles

of Umarkot, which it is hoped will ere long be extended across the district in either the Deesa or the Jodhpur direction and thus facilitate the exportation of agricultural and other produce. The principal articles of imports are sugar, dates, metalware, cloth, tobacco, and molasses, while the exports are cotton, wool, hides, bones, rice, wheat, ghi, oil-seeds, pulses, gum, and salt-fish.

The chief authority is vested in the Deputy Commissioner, who is invested with the powers both of a District Magistrate and of a Civil Judge. He also commands the Police force.

Revenue.

The land revenue collected in 1892-93 was Rs. 6,23,039 and the ghi-tax Rs. 12,925; receipts from stamps amounted to Rs. 18,387, while those from excise were Rs. 18,770. The local funds revenue came to Rs. 40,432. Municipalities are two in number, *viz.*, Umarkot and Mithi. Education is advancing rapidly; there are now 80 public schools in the district and they are well attended, especially by Hindus. The number of children under tuition is a little over 3,000.

UPPER SIND FRONTIER.

Area, 2,520 square miles; Population (1891), 174,548; Revenue, Rs. 7,56,914.

Description.

The Upper Sind Frontier District forms the northernmost portion of the Province of Sind. It was enlarged by the addition of the Shahdádpur Táluka from the Shikárpur District in the year 1884, and lies between 27° 39′ and 28° 27′ north latitude, and between 67° 23′ and 69° 44′ east longitude. To the north lie partly the Punjáb and partly the Khelát territory; on the south is the Shikárpur District; to the east runs the river Indus; and to the west lies partly the Khelát territory and partly the Shikárpur District. The administrative head-quarters are at Jacobábád. The country forms a narrow strip of level plain, save the extreme western part of táluka Shahdádpur, which is traversed by a range of hills. Formerly the country was subject to annual inundations from the river, but since the completion of the Kashmor-Begári Bund in 1879-80 the floods have been successfully shut out, and the jungle which covered the greater part of the country has mostly disappeared on account of the absence of moisture and the extension of cultivation. The land on the protected or dry side of the Kashmor-Begári Bund is irrigated by canals taken from the Indus, of which the chief are the Begari with its several branches, the Desert Canal with its branches, and the Unharwáh with its branches. The land on the exposed side of the bund depends, for irrigation, on the overflow of the Indus.

Population.

The Baluchis form the great majority of the Muhammadan population, and the Brahois, Samas, Sumras and Jats are also numerous; the last live in encampments of mat-tents and are engaged in tending and rearing camels. The Baluchis are generally addicted to the use of bháng (hemp) and liquor. The habits of the Frontier tribes were formerly wholly predatory, but by disarming them, cutting roads through the jungles which gave them cover, maintaining military outposts at prominent points and constantly patrolling the open country, they were reduced to order, and the greatest part of them have taken wholly to agricultural pursuits. All the outposts have now been withdrawn and the Frontier is watched by the Baluch levies, maintained by the Chiefs of tribes, who are paid stipends to keep their tribal people under order. The only outpost kept up at Sui, a pass into the Bugti hills, was withdrawn two years ago, and the pass is now watched by the men of the Bugti Chief.

Agriculture.

The principal crops of the district are jowári, bájri, til (gingelly), wheat, barley, rape and oilseeds (sarsum and jambho), and a little cotton and gram. Survey operations have been completed in the district with the exception of a waste tract of country called Sir-Amani in táluka Shahdádpur. An irrigational settlement has been in force in the Jacobábád and Shahdádpur Tálukas with the exception of the Sir-Amani and in part of the Thul Taluka for some years. In the remaining part of táluka Thul and in táluka Kashmor, an irrigational settlement is also now in course of introduction. Almost all the irrigable land that has been reclaimed from jungle, after the cessation of floods, is under occupation and is cultivated in rotation. There is a large area of land, about one lákh of acres, in the Shahdádpur Táluka; about 20 per cent. in táluka Kashmor; 15 per cent. in táluka Thul; and 5 per cent. in táluka Jacobábád, still unoccupied and available for cultivation, but there is no surplus water in the Government canals to irrigate it.

Trade and communication.

Many roads have been opened out in all directions, and the Military railway from Sukkur to Quetta crosses the district from the Begári Canal, past the town of Jacobábád to the Khelát border. Lacquered work, embroidered shoes, woollen carpets and saddle bags are the principal manufactures. Wheat and til (gingelly) are exported to Europe by European firms; jowári and other grains are partly consumed locally and partly exported. The caravan trade from Central Asia into Sind has ceased to cross this district since the opening of the railway to Quetta and beyond it. Only one cavalry regiment and two companies of infantry are now stationed in Jacobábád, and the senior Military officer present commands the station; guards for the four sub-treasuries are furnished by the infantry detachment. The revenue administration is now under the control of the Deputy Commissioner of the Frontier District of Upper Sind, which it is expected will soon be absorbed into and form part of the Shikárpur District, the southern part of which will be formed into a separate Collectorate.

CIVIL DIVISIONS OF BRITISH TERRITORY. *Sind.* Revenue.

The land revenue in 1892-93 amounted to Rs. 7,15,744; excise to Rs. 30,379; income-tax to Rs. 10,791. The local fund collections were Rs. 70,967. The income of the municipality amounted to Rs. 36,718. There are 46 schools with an average attendance of 995 pupils. The area of the district is 2,520·8 square miles, and the population 174,548.

Details of the last Census.

POPULATION AND CENSUS.

Accordance to the last Census, which was taken on the night of 26th, February 1891, the population of the territories administered by the Bombay Government was 26,960,421. It is divided into seven groups as tabulated below :—

Group.	British Territory.	Native States.	Total population.
Bombay City	821,764	.....	821,764
Gujarát	3,098,197	5,542,349	8,640,546
Konkan	2,966,729	327,559	3,294,288
Deccan	6,237,666	408,290	6,645,956
Karnátak	2,860,914	1,649,163	4,510,077
Sind	2,871,774	131,937	3,003,711
Aden	44,079	.....	44,079
Total ...	18,901,123	8,059,298	26,960,421

These groups do not altogether coincide with the administrative divisions, but were chosen with reference more to the ethnographical and geographical features of the country. Gujarát comprises all the districts of the Northern Division except Thána and the Native States of Cutch, Pálanpur, Cambay and the Káthiáwár, Mahi Kanthá, Rewa Kántha and Surat Agencies. The Konkan includes Thána and the three districts of Kolába, Ratnágiri and Kánara of the Southern Division, the Native States attached to these districts and Savantvádi. The Deccan comprises the Central Division and the Native States of the agencies attached to its districts. The Karnátic consists of three districts of the Southern Division, Belgaum, Dhárwár and Bijápur, Kolhápur, the Southern Marátha Jághirs and Savánúr.

The figures for the whole of this area are contained in Volume VIII. of the Imperial Census Report and a commentary on them in Volume VII. The information obtained in the schedules was abstracted on to 29 tables, and the following pages merely re-call the most salient features.

Density of population.—Excluding Aden and its surrounding country, the density of British territory is 150·78 to the square mile, while that of the feudatories is 116·72. The districts and divisions vary very greatly. Except in the Karnátak, where British territory shews 191·65 against 243·10 for feudatories, the British portion of a division is always the more densely populated. This is specially the case in Gujarát (300·91 to 109·72) and Sind (60·09 to 21·60). It is very marked too in the Deccan (162·48 to 105·97) but much less so in the Konkan (217·52 to 183·61). In British territory the order of the divisions in density is 1 Gujarát, 2 Konkan, 3 Karnátak, 4 Deccan, 5 Sind, and in the feudatories 1 Karnatak, 2 Konkan, 3 Gujarát, 4 Deccan, 5 Sind. In Gujarát the districts vary from Kaira 541·69 to Panch Mahals 194·31, in the Konkan from Ratnágiri 281·93 to Kánara 114·16, in the Karnátak from Dhárwár 228·40 to Bijápur 140·50 and in the Deccan from Sátára 245·85 to Ahmednagar 133·75. The large district of Khándesh is practically the same as this last with 133·93. Sind varies enormously from Hyderábád with 101·70 to Thar and Párkar with only 23·43 to the square mile. The City and Island of Bombay contains a population of 821,764 in an area of 22 square miles and has thus a density of 37,352·91 to the square mile. But this density varies to an extraordinary degree over the Island. Out of the 32 sections into which it is divided for adminstrative purposes, three have a population of more than 600 to the acre, three others more than 500, three between 400 and 500, four between 200 and 400, four between 100 and 200, four between 50 and 100, and eleven under 50. The most thickly populated is Kumbhárwáda with only a fraction under 700, most thinly Sion with 4·6.

Town and country.—It is almost impossible at a census accurately to discriminate between the urban and rural population. Even when the places to be considered as towns have been selected, there must always be a large number of permanent residents within their limits, whose life and occupation are purely rural. A large number of visitors will always be enumerated in the wrong class but this error rights itself. The chief difficulty is in selecting the towns. The criteria laid down at the last census were that the population must be over 5,000 or else the place must be under the operation of some Municipal or Chaukidári Act, and also that the place must have some distinctly urban feature such as a weekly market. According to these principles 215 places were treated as towns in British territory and 121 in Native States, or 336 in all. Out of these 51 in British territory and 29 in the feudatories were under 5,000. On the other hand there were 86 places in British territory and 6 in feudatories treated as villages, though containing over 5,000 inhabitants. Of the towns there were 61 with a population between 10,000 and 15,000, twenty between 15,000 and 20,000, twenty-three between 20,000 and 50,000 and nine over 50,000. These last in order of size are Bombay 821,764, Poona 161,390, Ahmedábád 148,412, Surat 109,229, Karáchi 105,199, Sholápur 61,915, Hyderábád 58,048, Bhávnagar 57,653 and Hubli 52,595. The districts with the largest percentage of urban population are Ahmedábád 30·1, Surat 24·0, Dhárwár and Karáchi 22·4, Broach 21·2 and Poona 20·4. Of these

all but Dhárwár and Broach have one very large town. For its size Kaira is the district best supplied with towns, having one for every 160 square miles. Next come Surat with 184 and Dhárwár with 200 square miles to each town. In this last district a more liberal interpretation was given to the definition of the word "town" than in most others of the Presidency Division, Bijapur is far the worst off for towns with an areality of 1,133 square miles to each. In Sind, however, it would be the second best. There they vary from Hyderábád with 1,120 to the square mile to Thar and Párkar with 6,364. The total village population is 22,280,321 living in 40,303 villages. The average number of persons to a village is 617 in British territory. It is highest in Gujarát among the divisions, where it is 748. Next come the Karnátak 715, Sind 679, Deccan 588 and Konkan 483. Thar and Párkar has the largest proportion of large villages and then comes Kaira. There are great variations between different districts of the same division and it cannot be said that one division runs more to large villages than another. Of the 86 places treated as rural no less than 16 are in Belgaum, 15 in Thar and Párkar and 9 each in Sátára and Kaira. In all but Thar and Párkar, this is probably due to a strict interpretation of definition of a town.

House-room.

The definition of a house supplied to the persons entrusted with the preliminary duty of preparing a list of them and numbering them for the convenience of the enumerators was, "The dwelling place of one or more families, with their dependents and servants, having a separate principal entrance from the public road, street, lane or other thoroughfare." This was a wide definition and the tendency was rather towards grouping really separate dwellings together than sub-division of what was really one. Houses are therefore, probably, slightly under-estimated. Only occupied houses, *i.e.*, houses actually containing inmates on the census night, were counted. They numbered 4,969,364, of which 831,780 were in towns and the remainder in villages. In British territory alone there were 3,373,232 of which 587,100 were in towns. This gives an average of 5·59 persons per house for the total population, 5·89 in towns and 5·53 in the country. The crowding is least in Gujarát and greatest in the Deccan; the latter especially in the villages, and it is here that the sort of buildings, where the definition worked least satisfactorily is found in greatest numbers. It is only in the Konkan and the Karnátak that the houses are more crowded in towns than in villages. There does not appear to be any connection between over-population and over-crowding in houses. In Kaira, by far the most thickly populated district, the average household is very small. In the next most populous, Surat, it is well below the average, and the next Ratnágiri, only ·02 per cent. above it. In Kánara, the most thinly populated district of the home division, the number per house is exactly the average of the presidency. Khándesh and Ahmednagar are the next most thinly populated. In the former the households are slightly below the average and in the other very greatly above it. In Sind, districts, of which the density per square mile is as far apart as 101·70 and 23·43, have respectively 5·73 and 5·69 as their average households. Beyond Bombay Island, the Sholápur towns shew the greatest overcrowding, to the extent of 7·48 per house.

Movement of the population.

There was nothing of any importance during the ten years that elapsed between the last census and the preceding one that could have had any marked effect on disturbing the ordinary rate of increase of the population. As far as the harvests were concerned they varied very slightly from the normal. There was nothing approaching to a famine, such as that which reduced the number in the Deccan and Karnátak so terribly in 1876-77, or even to a scarcity. There were no special inducements to emigration or immigration on a large scale. There was no great impetus to trade, nor was there any sudden depression. Nor again was there any marked rise or fall in wages. In the famine districts of 1876-77 there was the natural recovery from the previous losses, but elsewhere there was nothing but the ordinary increase to record. The total increase was 3,518,771 spread over the divisions thus:—

Division.	British Territory.	Feudatories.
Bombay City	48,565	.....
Gujarát	240,466	805,305
Konkan	257,602	28,209
Deccan	906,834	41,571
Karnátak	474,516	254,965
Sind	457,951	2,784
Total ...	2,385,937	1,152,834

It adds to the density per square mile of these divisions the numbers shewn below:—

	British Territory.	Feudatories.
Bombay City	2,207·6	.....
Gujarát	24·0	15·9
Konkan	18·9	15·8
Deccan	23·6	10·8
Karnátak	31·8	37·6
Sind	9·6	0·46

This increase is at the rate of 15·04 per cent., 15·01 for males and 15·06 for females. The rate varies greatly in the different districts from Thar and Párkar with 46·65 to Broach with 4·45. As a rule the rate is highest, where the density was already very great and least where it was low.

This is shewn by the following table in which the districts are arranged in the order of the density of their population in 1881:—

POPULATION AND CENSUS.

	Present serial order in density.	Increase in density per square mile.	Rate of increase.	Serial order inverse to rate of increase.
Kaira ...	1	41·69	8·30	7
Surat ...	2	21·54	5·83	4
Kolába	4	17·10	5·54	2
Ratnágiri	3	27·76	10·[illegible]2	8
Broach	6	8·42	4·45	1
Ahmedábád	7	9·30	7·63	5
Thána	8	15·83	12·80	10
Sátára	5	32·87	15·40	11
Dhárwár	9	33·72	17·65	15
Belgaum	10	31·94	17·02	14
Poona...	11	30·48	18·40	16
Panch Mahále	12	35·93	22·68	20
Násik ...	14	10·51	7·98	6
Sholápur	13	36·44	28·67	22
Khándesh	16	9·52	16·68	13
Ahmednagar	17	21·06	18·50	17
Bijápur	15	29·60	27·03	21
Kánara	18	6·31	5·81	3
Shikárpur	20	13·28	11·57	9
Hyderábád	19	18·40	21·74	19
Upper Sind Frontier	21	2·38	19·71	18
Karáchi	22	5·93	15·40	11
Thar and Párkar ...	23	7·53	46·65	23

The chief exceptions to the rule are Násik, Kánara and Shikárpur, of which Kánara is scarcely an exception, because its large tracts of forest ought really to be excluded from the area on which the density is calculated. The famine districts may be divided into three groups according to the severity of the effects on them in 1881. In the first would come Bijápur and Sholápur with a loss of between 19 and 22 per cent., in the second Belgaum and Dhárwár with a loss of between 8 and 11, and in the third Poona, Ahmednagar and Sátára varying from a loss of 4 per cent. to a nominal gain of ·02. Now the first two have the largest gain, though Bijápur's is not quite so high as Sholápur's and there is little difference between any of the other five, as they range from 15·40 to 18·50. It will be seen that they have recovered in great part from the effects of the famine. Bijápur is the only one of them whose population is still less than it was in 1872. Of the other disticts Broach is the only one in this condition. As in all probability there will not be another census until 1901, the population estimated for each year until then from a combination of the rates of increase or decrease of the two inter-censal periods is shewn below.

Estimated Population.

District.	Average annual rate of increase. 1872-91.	Average annual rate of increase. 1881-91.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
Bombay City ...	·01288	·00611	832,348	843,068	853,926	864,924	876,064	887,347	898,776	910,352	922,077	933,953
Ahmedábád ...	·00538	·00738	926,671	931,676	936,668	941,707	946,773	951,866	956,967	962,135	967,311	972,516
Kaira ...	·00568	·00800	876,539	881,517	886,524	891,559	896,623	901,716	906,837	911,988	917,168	922,377
Panch Mahále ...	·01398	·02065	317,798	322,241	326,746	331,314	335,946	340,643	345,404	350,233	355,129	360,094
Broach ...	—·00134	·00436	342,699	343,911	345,128	346,350	347,576	348,806	350,041	351,280	352,523	353,771
Surat ...	·00354	·00568	652,290	654,599	656,916	659,241	661,573	663,917	666,267	668,625	670,992	673,367
Thána ...	·00988	·01146	913,808	922,836	931,954	941,161	950,460	959,850	969,328	978,910	988,592	998,349
Kolába ...	·00691	·00541	513,105	516,650	520,220	523,815	527,434	531,079	534,749	538,444	542,165	545,911
Ratnágiri ...	·00481	·01041	1,110,692	1,115,479	1,120,287	1,125,116	1,129,964	1,134,834	1,139,725	1,144,637	1,149,570	1,154,525
Kánara ...	·00601	·00566	449,034	451,733	454,448	457,179	459,927	462,691	465,472	468,269	471,083	473,914
Khándesh ...	·01805	·01555	1,487,319	1,514,063	1,541,392	1,569,314	1,597,838	1,626,373	1,655,729	1,685,815	1,716,640	1,747,014
Násik ...	·00709	·00771	849,563	855,586	861,652	867,761	873,913	880,109	886,349	892,633	898,962	905,336
Ahmednagar ...	·00692	·01711	894,906	901,093	907,334	913,613	919,935	926,301	932,711	939,165	945,664	952,208
Poona ...	·00773	·01703	1,076,054	1,084,372	1,092,754	1,101,201	1,109,713	1,118,291	1,126,935	1,135,646	1,144,424	1,153,270
Sholápur ...	·00218	·02553	752,325	753,965	755,609	757,256	758,907	760,561	762,219	763,881	765,546	767,215
Sátára ...	·00758	·01443	1,235,282	1,244,645	1,254,079	1,263,585	1,273,163	1,282,814	1,292,539	1,302,335	1,312,207	1,322,154
Belgaum ...	·00357	·01560	1,016,878	1,020,508	1,024,151	1,027,807	1,031,476	1,035,158	1,038,853	1,042,562	1,046,284	1,050,019
Dhárwár ...	·00262	·01639	1,054,068	1,056,930	1,059,799	1,062,375	1,065,158	1,067,949	1,070,747	1,073,552	1,076,365	1,079,185
Bijápur ...	—·00051	·02421	798,075	799,815	801,559	803,306	805,057	806,812	808,571	810,333	812,100	813,870
Karáchi ...	·01354	·01442	572,528	580,280	588,137	596,100	604,171	612,351	620,642	629,045	637,562	646,195
Hyderábád ...	·01262	·01986	930,239	941,979	953,867	965,905	978,095	990,438	1,002,937	1,015,594	1,028,411	1,041,389
Shikárpur ...	·01099	·01101	925,558	935,730	946,014	956,410	966,921	977,547	988,290	999,151	1,010,131	1,021,232
Thar and Párkar	·02670	·03903	306,165	314,340	322,733	331,350	340,197	349,280	358,606	368,181	378,011	388,104
Upper Sind Frontier ...	·03118	·01815	178,345	182,020	185,875	189,812	193,832	197,937	202,129	206,410	210,782	215,246
Total, British Territory ...	·011063	·01362	19,085,659	19,276,582	19,469,839	19,705,455	19,923,456	20,143,909	20,366,721	20,592,088	20,819,948	21,050,179
Cutch ...	·00707	·00870	562,363	566,239	570,348	574,375	578,436	582,525	586,643	590,790	594,967	599,173
Pálanpur ...	·01264	·01138	658,685	661,947	670,314	678,787	687,367	696,055	704,853	713,762	722,784	731,920
Mahi Kántha ...	·01394	·01174	589,675	597,895	606,250	614,680	623,249	631,936	640,745	649,677	658,738	667,916
Kathiáwár ...	·00907	·01620	2,777,368	2,802,559	2,827,978	2,853,628	2,879,510	2,905,627	2,931,981	2,958,574	2,985,404	3,012,486
Rewa Kántha ...	·01605	·02924	747,479	761,718	776,229	791,015	806,084	821,440	837,088	853,034	869,284	885,844
Cambay...	·00380	·00416	90,063	90,405	90,748	91,093	91,439	91,786	92,135	92,485	92,836	93,189
Surat Agency ...	·02023	·01832	184,874	188,614	192,429	196,322	200,293	204,345	208,479	212,696	216,999	221,389
Jawhár ...	·01834	·00847	53,810	54,787	55,792	56,815	57,857	58,918	59,999	61,099	62,220	63,361
Janjira ...	·00678	·00688	82,330	82,884	83,442	84,004	84,569	85,138	85,711	86,288	86,869	87,454
Sávantvádi ...	·00069	·01014	193,062	193,176	193,290	193,404	193,518	193,632	193,746	193,860	193,974	194,088
The Dángs ...	...	·00512	...	...	...	...	...	...	...	...	...	...
Surgana...	...	—·01370	...	...	...	...	...	...	...	...	...	...
Bhor ...	·00710	·00652	156,774	157,887	159,008	160,137	161,274	162,419	163,572	164,733	165,903	167,081
Akalkot...	—·00356	·02709	75,939	76,104	76,270	76,436	76,603	76,770	76,937	77,105	77,273	77,441
Sátára Agency ...	·00166	·01150	131,746	131,963	132,180	132,398	132,616	132,835	133,054	133,273	133,493	133,718
Jath ...	·00491	·03697	80,178	80,572	80,967	81,364	81,763	82,164	82,567	82,972	83,379	83,788
Kolhápur ...	·00672	·01329	919,267	925,444	931,663	937,924	944,227	950,572	956,960	963,391	969,865	976,382
Southern Marátha Jághirs ...	·00244	·02013	640,830	642,394	643,961	645,532	647,107	648,686	650,269	651,856	653,446	655,040
Sávandr...	—·00096	·01407	17,020	17,065	17,110	17,155	17,200	17,245	17,290	17,335	17,380	17,425
Khairpur ...	·00064	·00713	132,021	132,105	132,190	132,275	132,360	132,445	132,530	132,615	132,700	132,785

POPULATION AND CENSUS.

Religions.

The religions returned and the numerical strength of each are Hindu 21,438,244, Mussalman, 4,355,802, Jain 555,209, Animistic 292,023, Christian 167,004 Parsi 76,456, Jew 10,721, Sikh 912, Buddhist 674, Brahmo 34, and Atheist 27. The last two do not differ much except in colour, and might have been classified together. Animistic is used to express those of the aboriginals who profess no recognised religion and worship spirits of good and evil in the guise of material objects. The following table gives the increase or decrease since 1881 in an easily intelligible form :—

Percentages of increases since 1881.

Religions.	Total.		British Territory.		Feudatories.		Sind.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Hindu and Sikh ...	+19·26	+19·46	+18·06	+17·68	+21·95	+23·49	+31·82	+24·75
Musalmans	+15·45	+15·35	+16·28	+15·50	+12·05	+14·78	+17·50	+17·22
Animistic	−68·50	−68·79	−61·46	−59·01	−79·15	−78·36	−10·58	−8·04
Christian	+16·95	+12·38	+16·76	+11·96	+20·96	+19·97	+30·58	+20·90
Jain	+11·25	+11·64	+12·58	+9·53	+10·17	+12·97	−21·38	−23·84
Parsi	+3·12	+3·60	+2·41	+2·82	+26·40	+39·80	+39·34	+50·87
Jew	+20·84	+160·87	+23·81	+18·73	−0·56	+2·63	+18·60	+61·19
Total population ...	+15·01	+15·07	+14·77	+14·18	+15·59	+17·17	+19·12	+18·81

Age and Sex.

Unfortunately the age is returned so inaccurately by the bulk of the people that the ordinary deductions that are made from the returns in European countries cannot be drawn in India without large allowance for these mistakes. It is evident that in a country like the Bombay Presidency, with a steadily increasing population, when the ages are divided into periods of equal length the number in each period should decrease as the age increases. Even supposing that the number of annual births remained constant, with each successive year numbers must fall off from death, and therefore unless their places are supplied by adult immigrants, which is not the case, the numbers must decrease in each successive age-period. Still more must this be the case when the number of births is steadily increasing, as it is here. If the returns of any European country are looked at, it will be seen that the numbers do steadily decrease as the age increases, not always when they are taken in annual groups but always when taken in quinquennial periods which are long enough to allow for any fluctuation in the birth rate brought about by extraordinary circumstances, such as an unhealthy season or depression in trade. Here decennial periods are not even sufficient for the female sex to obtain this order. According to the actual returns there were more boys alive of the age of four than of either three, two or one. Both among boys and girls there was an extraordinary dearth of children one year old. There were fewer males between 15 and 20 than in any quinquennial period till that from 35 to 40. The females show much the same results and there is also among them a great deficiency of girls between 15 and 20. So great is this deficiency that there are actually more women returned between 20 and 30 than girls between 10 and 20. In the census report attempt has been made to estimate the amount of the error in age and to correct the tables accordingly. The meanage of the population was 24·37 according to the ages as actually returned, and 23·06 according to the corrected tables.

The proportion between the sexes, as far as the different ages are concerned, is of course vitiated by the same error. For it does not appear to be the case that the two sexes err in the same way in mis-stating their age. Women, of course, as in all countries under-state them, except at a very early period of life. Then an additional difficulty is caused by the wilful omission of young girls owing to the curious notions of delicacy in the country. Due allowance must be made for these errors in considering the following figures. The total numbers are :—

	Males.	Females.
British Territory	9,763,067	9,093,977
Feudatories	4,120,125	3,939,173

and the proportions of females to males are 931 and 956 respectively per mille. This is a result quite opposed to all European statistics, but this vast preponderance of males is now a recognized feature of an Indian census. The deficiency of females is by no means spread evenly over the various age-periods. On the contrary it varies very much. Taking the figures for the British districts in the home division it is seen that at every year under five and at the quinquennial periods, 25 to 30, 45 to 50, 50 to 55, and for those over 60 there is actually a preponderance of females. In the other ages how much is due to actual fact and how much to concealment of women it is impossible to state, but it seems to be certain that there is not that excess of women which is so noted in Europe. There are two districts, Ratnágiri and Surat, where the females do actually outnumber the males, and this for the reason that the males leave their homes in large numbers for work. In Bijápur the numbers of the two sexes are the same. In the capital city the disproportion is far greater than anywhere else. After that come all the Sind districts, and of the presidency division Kaira shews the greatest difference. One remarkable feature is apparent all over the presidency, that the proportion of females rises, where the population is nearly or quite stationary, but falls where it is rapidly increasing. Look-

POPULATION AND CENSUS.

ing at the proportion, as it is affected by religion, there are striking differences which are shown in the accompanying table :—

Number of females to 1,000 males.

	1881.	1891.
Hindu, British Territory	956	952
" Native States	944	956
Musalmán, British Territory ...	874	868
" Native States	928	951
Animistic, British Territory	968	939
" Native States	954	990
Jain, British Territory	627	805
" Native States	950	975
Christian, British Territory	704	675
" Native States	851	844
Jew, British Territory	1,047	1,004
" Native States	987	1,019
Sikh, British Territory	880	249
" Native States	34	160

The disproportion among Christians is easily accounted for by the European population, especially the military portion of it. Jains are strangers too in most of the British districts. The Musalmáns shew the most important difference, and that is what would have been expected from a knowledge of their customs. The great difference in the proportions in British Territory and Native States is due to Sind, where the population is almost entirely Muhammadan, and where the disproportion is much more marked than in the home division. In some of these last districts there is little difference between the two religions and what there is, is often in favour of the Musalmáns. For instance, Ratnágiri shews 1,158 females to 1,000 males in its total population, and no less than 1,272 Musalmán women to 1,000 Musalmán males.

Marriage statistics.

The marriage returns also are affected by the errors as to age, and another point wherein they lose the greater part of their value is that the fact of a person being married does not necessarily mean any thing as far as the reproduction of his species goes. The fact of real importance, which it is desirous to know, is how many persons are living in a state of connubiality. The fact of the proportion of boys or girls under 10 that are married may be an interesting fact to the administrators of the country, but its effect on the birth-rate cannot be very great. At the same time it may be assumed that the majority of those married at this early age do actually cohabit as soon as the girl has come to the age of puberty, and by eliminating those below the childbearing age the results of the Indian census may be compared with those of countries with civilized marriage customs.

The total numbers are :—

	Males.	Females.
Unmarried	6,536,214	4,217,245
Married	6,675,545	6,710,099
Widowed...	660,854	2,097,149

In 1881 they were :—

	Males.	Females.
Unmarried	5,715,185	3,592,861
Married	5,645,499	5,689,681
Widowed...	627,538	1,975,763

The increase and percentage of increase of each of the three conditions are :—

	Males.		Females.	
	Difference.	Percentage.	Difference.	Percentage.
Unmarried	821.029	14·37	624.384	17·38
Married	1,030,046	18·24	1,020,418	17·93
Widowed	33,316	5·31	121,386	6·14

From this it appears that the increase of widows is rather more than of widowers, but that the increase of both is much less than of either unmarried or married, which is a very satisfactory result. Among the married, men have increased more than women, but among the unmarried it is the other way. From comparison of the age-periods this is evidently in great part the result of postponing the marriage of girls to a later age. Partly it appears to be due also to the waning popularity of polygamy. There can be no doubt that it is not nearly so common now for a man to have two wives as it was 10 years ago. Increased cost of living has probably much to do with this. One of the most striking features of an Indian census is always the large proportion of widows, whether as compared with the proportion in other countries or with the number of widowers in India. The unequal treatment of the two sexes as regards early marriage and the right of re-marriage is strikingly brought out. Out of 10,000 females no less than 1,656 are widows, while there are only 472 widowers among the same number of males. The married are 5,151 and 4,801 respectively and there are 3,193 spinsters and 4,727 bachelors. Out of 10,000 women between the ages of 15 and 25 only 548 are spinsters, that is less than 5·5 per cent., while the proportion of widows at that early period of life is close upon 4 per cent.

With men it is very different. Between 15 and 25 there are still 4,496 bachelors out of every 10,000 and the widowers are less than half the widows. The difference in the numbers of the widowed of the two sexes is here small, and is because the men have not yet begun to marry again. At the next age-period, which is shewn for this subject in the returns, the difference is remarkable. There are now, *i.e.* between 25 and 40, more married among the men, but the widows are 14 per cent. on the total number of their sex of that age and the widowers only 4. Spinsters are 1 per cent. and bachelors 10. Still greater is the disproportion between 40 and 50, but it gets less after the latter age, shewing thereby that it is not till about 50 that a widower thinks himself too old to console himself by a second match. All these disparities are much less prominent among Musalmáns than Hindus. The percentage of widowed is 5 and 11 respectively between 25 and 40, and 10 and 35 between 40 and 50. Neither boys nor girls marry so early among them, and between 15 and 25 there are 6,348 bachelors and 1,149 spinsters out of 10,000 of each sex. The Pársis almost resemble Europeans in their marriage relations. There are only 318 girls under 15 married out of 10,000 and only 5,395 between 15 and 25 out of the same number. Fewer of their women however remain unmarried all their life than among either Hindus or Musalmáns, for in the last age-period, comprising all over 50, there are only 28 out of 10,000 Pársi old maids, against 83 Hindus and 116 Musalmáns.

Infirmities.

The insane, deaf-mutes, blind and lepers were enumerated. There is a very satisfactory decrease in them all. In the first three classes there is an actual decrease in numbers, notwithstanding the large increase of population. Among lepers the percentage only has fallen, the actual numbers being slightly higher than in 1881. The decrease is said to be more apparent than real and due to a better exercise of their discretion by the enumerators. The number out of which one afflicted is to be found is now, insane 3,000, deaf-mute 1,624, blind 672, leper 1,851. In Sind there is an extraordinary number of insane persons, the average being one out of every 1,175 and in Shikárpur it is one out of 1,112. The Deccan and Karnátak are very free from the disease, there being over 6,000 to every insane, and in Belgaum there are close upon 9,000. There are very few females afflicted compared with the males, altogether only 52·5 to 100, and this proportion is fairly steady all over the country. Only in three districts it is more than 62, but in one of these, Thána, it is as high as 103. Deaf-mutes are also much commoner in Sind than in the rest of the province. They are one to 959 there and nowhere else are they more than one out of 1,226, which is their number in Kánara. Here again the Deccan is very well off with over 2,000 in every district, and on the whole over 2,300 to each afflicted. The sex proportion is very peculiar, there being only 62·6 female to 100 male deaf-mutes In England the proportion was 5 to 6, and the compilers of the report were of opinion that the male sex was more liable to congenital defects. Unless this is the fact, the only possible conclusion, granted correct enumeration, is that their parents are more careless regarding the life of their afflicted daughters and allow them to die from neglect. The proportion is lowest in Sind, 49 to 100, where the affliction is commonest. In the number of the blind Sind is again ahead of all other parts. They are here one out of every 467, and in the Upper Sind Frontier one out of 293. The Karnátak and Konkan are the most free with one out of every 1,202 and 1,121 respectively. The sex-proportions in this infirmity are more natural, 91·9 to 100, and in Gujarát the female blind far outnumber the males, especially in Ahmedábád where they are 140 to 100. There are 12,740 lepers against 12,382 at the preceding enumeration, but there are now 2,113 persons to every leper, while before there were only 1,889. The disease is most prevalent in the Konkan and Deccan, with 1,396 and 1,041 respectively to one afflicted. Kánara, however, is a noteworthy exception and is the luckiest district in the home division in this respect with 23,492 to each leper. Sind is much more fortunate than the rest of the Presidency, for its whole area shews 13,740 to each leper, and Thar and Párkar 42,600. There would seem to be little fear of the disease being on the increase anywhere. The number of leper women compared with the men is remarkably small, more so indeed than that of the deaf-mutes, and it must be partly due to a not unnatural desire to conceal the infirmity on the part of relatives. Male lepers are not so easily concealed, and are generally known as such.

Instruction.

In the census returns the people are divided into three classes under this head, literate, illiterate and learners. The last includes all those who are at school and are learning to read and write or have learned to do so or are learning privately, but not those who attend school simply to learn religious books by heart. Literate are those who have learned to read and write, and are no longer at school or college, and illiterate are those who cannot read and write and are not learning to do so. There can be no doubt that the enumerators as a body were puzzled by the definition of learners, and omitted many of the younger scholars in elementary schools, who were at the alphabet only, considering that they could not be said to be learning both to read and write. This is obvious from a comparison of the census returns with those of the Educational Department and is proved in the census report. There were at the time of the census:—

	Learning.	Literate.	Illiterate.
Males	439,360	1,308,669	12,124,584
Females	30,745	67,742	12,925,006

The first two classes are divided thus :—

	Learning.		Literate.	
	Males.	Females.	Males.	Females.
British Territory	333,815	21,890	946,025	54,338
Feudatories	105,545	5,856	362,644	13,404

There are two striking features in these figures, *first* the much greater proportion of females among the learners than among the literates, and *secondly* the large number of female learners as well as literate in British territory compared with the Native States. There are 19·30 male literates to every female, but only 14·29 male to every female learner. This looks as if female education were advancing more rapidly than male, and there is plenty of room for it; but before this can be accepted as a fact, it must be proved that, out of a given number of learners of either sex, as many girls develope into literates as boys. This seems to be the fact, for the number of female learners and literates both has increased since 1881 more rapidly than that of the males, and especially the literate, which would seem to show that girls are going to school in relatively greater numbers than before and also that they make better use of their time there than the boys do.

The number of persons unable to read and write in the various divisions of the Presidency at the last two enumerations were, out of 1,000 of the population :—

	1881.		1891.	
	Males.	Females.	Males.	Females.
British Territory	888	993	869	991
Feudatories	902	997	886	995
Presidency proper ...	883	993	860	991
Sind...	921	995	915	995
Aden	743	959	770	966

Recent enumerations of European countries showed the following results: Italy 623 and 764, Austria 479 and 533, Portugal 750 and 892. Aden is the only part of the Presidency that approaches these figures and not even it with respect to the women.

The accompanying two tables show, *first* the order in which each district stands in respect of the proportion of learners and literates among its inhabitants, and *secondly* the number of learners out of 1,000 boys and girls of school-going age, which is taken to be from 5 to 15 :—

Serial order of Districts according to Education.

District.	Males.				Females.			
	Learners.		Literate.		Learners.		Literate.	
	1881.	1891.	1881.	1891.	1881.	1891.	1881.	1891.
Ahmedábád	6	8	3	3	9	7	6	5
Kaira	7	7	5	6	12	9	9	10
Panch Maháls	21	18	16	19	18	13	14	14
Broach	1	2	1	1	6	3	4	2
Surat	2	1	2	2	2	1	1	1
Thána	17	16	16	15	10	7	8	8
Kolába	11	8	11	9	12	10	17	11
Ratnágiri	7	6	11	9	20	19	21	18
Kánara	5	3	4	4	5	2	7	6
Khándesh	15	10	21	15	22	22	21	19
Násik	19	14	18	12	15	19	11	12
Ahmednagar	13	11	13	17	11	11	11	13
Poona	4	5	6	7	3	5	3	4
Sholápur...	7	15	10	13	15	15	18	16
Sátára	13	16	18	20	22	21	21	19
Belgaum...	7	11	13	13	12	15	16	14
Dhárwár...	3	3	7	4	7	6	14	9
Bijápur	12	11	15	18	18	14	20	19
Karáchi	17	19	8	8	1	4	2	3
Hyderábád	20	21	20	22	4	12	5	7
Shikárpur	15	20	9	11	7	18	11	17
Thar and Párkar	23	23	23	23	20	23	18	23
Upper Sind Frontier ...	22	22	22	21	15	15	9	19

Number of learners out 1,000 children between 5 and 15.

District.	Males.	Females.	State.	Males.	Females.
Bombay City	261	86·77	Cutch	125	10·38
Ahmedábád	150	13·98	Pálanpur	47	2·83
Kaira	157	11·80	Mahi Kántha	62	2·48
Panch Maháls	93	6·63	Káthiáwár	127	8·27
Broach	266	20·35	Rewa Kántha	58	3·87
Surat	240	28·85	Cambay	131	14·89
Thana	110	12·80	Surat Agency	57	8·58
Kolába	142	10·13	Jawhár	21	0·77
Ratnágiri	147	4·57	Janjira	147	18·58
Kánara	197	21·13	Sávantvádi	167	8·26
Khándesh...	126	2·24	Dángs	...	...
Násik	114	4·13	Surgána	9	...
Ahmednagar	129	9·66	Bhor	62	2·98
Poona	186	18·74	Akalkot	120	3·94
Sholápur	131	6·45	Sátára Agency	83	3·84
Sátára	107	3·26	Jath	77	1·58
Belgaum	126	5·74	Kolhápur	104	5·56
Dhárwár	200	14·71	Southern Marátha Jághirs	143	6·09
Bijápur	147	7·34	Sávanúr	209	17·62
Karáchi	90	17·62	Khairpur	50	0·18
Hyderábád	72	8·47			
Shikárpur	85	5·28			
Thar and Párkar...	29	1·23			
Upper Sind Frontier	69	5·85			
British Territory...	139	12·14	Total, Feudatories ...	101	6·36

There are considerable differences between the professors of the various religions in regard to the spread of education. Taking males first, the Pársis are well ahead of all others. Next to them come the Jews, Jains and Christians in that order. In British Territory the Hindus come next, but in the Native States they are passed by the Mussalmáns. The Sikhs and Buddhists are too few for notice. The Animistic, as those of the aboriginals, who profess no recognized religion, have been termed, are last. Though in every district but one the proportion of learners among the population as a whole was found to have gone up, yet among the Pársis, Jains and Christians it has gone down. Among literates the Pársis again come first, and then the Jains. Next to them come the Jews, except in Native States where they are beaten by the Christians. The Mussalmáns stand in the same position towards the Hindus with regard to literates as to pupils, with a larger proportion in Native States but a smaller in British Territory. Among the Animistic the literates are scarcely more numerous than the learners, the whole of them having probably learned what they know in the last few years. The Pársis have a larger proportion of literates in Native States than elsewhere, because the majority of their poor are in Bombay. Their percentage of literates in the States, 17·80, is one that their community may well be proud of. Among Christians there are fewer literates because there are so many fewer Europeans there. Among the females, the Pársis again head the list, followed by the Jews and then the Christians. Compared with the males there are fewer learners among the Jains than any other class. Their education is chiefly commercial. The Mussalmáns are ahead of the Hindus all over the country both among learners and literate. The proportion of learners is the same in British Territory as in Native States, but of literates it is lower. Among Pársis, Christians and Jews the proportion of female learners and literates is very creditable. A comparsion is perhaps best illustrated by the figures for illiterates. The percentages for the different religions are:—

	Males.	Females.
Pársi	22·57	49·07
Jew	43·52	75·23
Christian	55·60	77·58
Jain	42·65	98·22
Mussalmán	91·99	99·29
Hindu...	86·96	99·55

There are 40 Indian, 11 other Asiatic and African and 20 European languages detailed in the returns, and in this number several gipsy dialects are grouped together as one and also several negro dialects. The language asked for in the schedules was the mother tongue of each person. The most widely spoken languages, in descending order, are Maráthi with 38·47 of the inhabitants of the province speaking it, Gujaráti with 30·45, Kánarese 11·38, Sindhi 9·51, Urdu, Hindustáni or Mussalmáni as it is most generally called 4·37, Cutchi 1·58, Márwádi 1·02, Beluchi ·68, Konkani ·57, Telugu ·50, Bhil ·46, English ·14, and Arabic ·12. Maráthi is the mother tongue of 5,248,000 persons and is the chief language of the Deccan, the whole of the Konkan except Kánara, and Kolhápur and the Southern Marátha Jághirs. Only in three of these districts is there a large mixture of any other tongue. In Sholápur over 50,000 out of 750,000, or about one in fifteen speak Kánarese. More than 47,000 of these are in the one táluka of Sholápur of which the total population is 180,000. In parts of Khándesh Gujaráti and the Bhil tongue run it close. Out of the total of 460,000 of the district 110,000 are returned as speaking Bhil and 65,000 Gujaráti. In Taloda táluka the numbers are, total 83,000, Bhil 64,000, Gujaráti 9,000. Nandurbár, total 75,000, Bhil 31,000, Gujaráti 6,700. Nawápur, total 30,000, Bhil 11,000, Gujaráti 18,000. Gujaráti is spoken by nearly 65,000 persons in Thána, of whom nearly 34,000 are in Umbargaon petha, of which the total population is 65,000. Gujaráti is the language of the whole of the Gujarát Division, both British and Feudatory, except Languages.

Cutch where it is spoken by only 237,000 as against 311,000 Cutchis, and the States of the Surat Agency which contains 108,000 Maráthi against 70,000 Gujaráti speakers. Kánarese is the language of the Karnátak including Sávanur, but in Belgaum there are 257,000, in Dhárwár 48,000 and in Bijápur 32,000 Maráthi speakers. In Kánara there are 37,000 Maráthi and 125,000 Konkani speakers. Of the latter 27,000 are in the Kárwár táluka. Counting Kánarese and Maráthi both as vernaculars of Sholápur, Belgaum, Dhárwár and Bijápur, Kánarese and Konkani of Kánara, Maráthi and Gujeráthi of Thána, and Maráthi, Bhil and Gujaráti of Khándesh the residents of the different districts of the home division speaking a tongue other than the vernacular vary from 2·22 per cent. of the population in the Panch Maháls to 14·60 in Bijápur. They are more than 10 per cent. in all the Karnátak districts, in Kánara, Khándesh, Poona and Sholápur. In all these districts there are large numbers of persons who have returned Mussalmáni as their mother tongue. It is not that there is a larger proportion of men of the Muhammadan religion, but they have retained their own language more in these districts than in the purely Maráthi-speaking country, doubtless because it resembles Maráthi so much more nearly than Kánarese that they adopted the former more readily. The Urdu speakers number altogether 1,174,112, of whom about 118,000 are in Khándesh, 101,000 in Dhárwár, 94,000 in Bombay City and between 50,000 and 80,000 each in Poona, Sholápur, Dhárwár and Bijápur, and over 40,000 in Belgaum. In the other districts they vary from 30,000 down to 5,000 in the Native States there are 254,000 of them. Márwádi is spoken by 276,000 persons, of whom 92,000 or just one-third are in Thar and Párkar and 34,000 in Hyderábád. The only other districts where they are found in any numbers are Násik and Poona with something under 20,000 each. In Sind except in Thar and Párkar, where there are so many Márwádis and Karáchi, where there is a mixture of several, over 90 per cent. in each district speak Sindhi. The Beluchi speakers number over 178,000 and are pretty evenly distributed over the districts except Thar and Párkar. There are over 30,000 Gujaráti speakers both in Thar and Párkar and Karáchi. In Bombay Island the numbers for the principal languages are Maráthi 414,148, Gujaráti 175,833, Urdu, 94,431, Cutchi 45,148, English 14,829, Márwádi 13,337, Telugu 11,087, Goanese 10,855, Portuguese 7,151 and Konkani 7,056.

Birth-place.

The birth-place returns serve to show the effect of emigration and immigration from and to other presidencies, States and countries, and also between different districts of this Presidency. The total number of persons born outside the province, but enumerated within it, is 692,812 against 612,841 in 1881. Those born in Bombay but enumerated outside came to 584,768 against 587,941. This means that there were 108,044 fewer emigrants from the province than immigrants into it, and that this number has increased from 24,900, which was the difference between the classes in 1881. This is chiefly due to a great falling off in the number of Bombay born persons found in Hyderábád and Berar, where they had emigrated in considerable numbers during the famine of 1876-77 and have gradually returned. Where the numbers of migrants each way between two places are about equal and especially where the numbers of the female migrants are higher than of the males, it may be accepted that the reasons for the movement is not economic but social, of women leaving their fathers' homes for their husbands and of relations visiting each other. The interchange of population between this province and Baroda is clearly of this description. There were 288,764 emigrants against 246,879 immigrants, and of both a very large majority was of women. From Hyderábád the immigrants are 120,000 in excess of the emigrants to it, and in both cases the women are in a majority. From the North-West Provinces, the Punjáb and Upper India generally there are many more immigrants to Bombay than emigrants from it. The accompanying table gives full details :—

Province.	Immigrants to Bombay.			Emigrants from Bombay.			Excess, Emigrants+, Immigrants —		
	Total.	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.
1	2	3	4	5	6	7	8	9	10
Ajmere	1,961	1,306	655	2,022	1,322	730	+91	+16	+75
Assam	108	61	47	311	200	111	+203	+139	+64
Baroda	246,879	94,339	152,540	288,764	112,626	176,138	+41,885	+18,287	+23,598
Bengal	11,218	7,330	3,888	2,386	1,658	728	—8,832	—5,672	—3,160
Berár	18,162	7,874	10,288	59,805	31,376	28,429	+41,643	+23,502	+18,141
Burma	529	378	151	3,382	2,831	551	+2,853	+2,453	+400
Central India ...	24,966	13,720	11,246	60,059	32,728	27,331	+35,093	+19,008	+16,085
Central Provinces.	10,494	6,615	3,879	24,554	13,446	11,108	+14,060	+6,831	+7,229
Coorg	21	11	10	803	683	120	+782	+672	+110
Hyderábád ...	186,848	79,061	107,787	6[illegible],072	30,354	36,718	—119,776	—48,707	—71,069
Madras	39,877	24,915	14,062	3[illegible],686	2[illegible],441	13,245	—1,191	+526	—1,717
Mysore	18,186	8,851	9,335	2[illegible],159	11,674	9,485	+2,973	+2,823	+150
North-West Provinces and Oudh.	69,305	52,630	16,675	7,043	3,976	3,067	—62,262	—48,654	—13,608
Punjáb	43,602	32,068	11,534	8,692	5,555	3,137	—34,910	—26,513	—8,397
Upper India ...	20,656	14,821	5,835	...	...	...	—20,656	—14,821	—5,835
Total ...	692,812	343,980	348,832	584,768	273,870	310,898	—108,044	—70,110	—37,934

Of the separate districts those which have the largest proportions of foreigners from distant parts are Karáchi with 814 out of every 10,000 of its population, Thána with 701, Upper Sind Frontier 552, Thar and Párkar 522, Ahmedábád 481, Poona 424, Belgaum 362, and Khándesh 361. Those which send out the largest proportion of their natives to districts, states or countries other than those bordering upon them are Ratnágiri 1,502 out of 10,000, Poona 689, Surat 610, Kolába 548, Sátára 452, Ahmedabád 253, Sholápur 245, and Ahmednagar 223. Ahmedábád and Poona are in the first six in both these lists. Ordinary unskilled labourers are the emigrants, and the immigrants are clerks, soldiers and other men in Government employ. These figures are by far the most interesting of any that can be extracted from birth-place table. Two tables therefore are subjoined to shew them for all districts:—

District of birth.	Number out of 10,000 of population enumerated in			District of Birth.	Number out of 10,000 of population enumerated in			District of birth.	Number out of 10,000 of population enumerated in		
	District of birth.	Contiguous District or State.	Distant District or State.		District of birth.	Contiguous District or State.	Distant District or State.		District of birth.	Contiguous District or State.	Distant District or State.
Ahmedábád ...	8,943	804	253	Kánara	9,815	151	34	Dhárwár	9,413	556	31
Kaira	9,319	562	119	Khándesh ...	9,328	92	80	Bijápur	9,335	559	106
Panch Mahals .	9,315	648	37	Nasik	9,213	688	99	Karáchi	9,639	274	87
Broach	9,540	411	48	Ahmednagar ...	9,280	497	223	Hyderábád	9,467	519	15
Surat	8,784	606	610	Poona	8,753	558	689	Shikárpur	9,557	398	45
Thána	9,126	866	208	Sholápur... ...	9,018	737	245	Thar and Párkar ...	9,451	507	42
Kolába	8,994	458	548	Sátára	8,477	1,071	452	Upper Sind Frontier.	9,038	282	80
Ratnagiri	8,129	369	1,502	Belgaum	8,743	1,151	106				

District.	Number of Persons per 10,000 of Population born in				
	District of enumeration.	Contiguous Districts and States.	Distant Districts and States, Bombay.	Distant Districts and States of Other Provinces.	Out of India and Unreturned.
1	2	3	4	5	6
Bombay City	2,504	.....	5,842	1,447	207
Ahmedábád	8,078	1,428	156	325	12
Kaira	8,837	957	163	40	3
Panch Mahals...	8,208	1,543	68	178	3
Broach	8,690	1,108	86	108	8
Surat	9,287	465	122	122	4
Thana	8,743	547	510	191	9
Kolaba	9,191	537	205	64	4
Ratnagiri	9,749	193	35	21	2
Kanara	8,844	950	40	161	5
Khandesh	9,253	378	159	202	8
Nasik	9,174	498	85	215	28
Ahmednagar	9,025	793	75	96	12
Poona	8,814	720	229	195	42
Sholápur	8,525	1,165	250	52	8
Sátára	9,543	360	68	22	7
Belgaum	9,109	512	287	75	16
Dhárwár	9,141	674	76	103	6
Bijapur	9,002	777	111	107	3
Karachi	8,376	418	578	236	392
Hyderábád	9,255	482	14	228	21
Shikarpur	9,192	258	117	206	227
Thar and Párkar	8,250	1,215	206	316	13
Upper Sind Frontier	6,470	1,551	276	276	1,426

The birth-places of the immigrants to the Capital City are appended—

Immigrants to Bombay City from	1881.			1891.		
	Total.	Males.	Females.	Total.	Males.	Females.
Gujarát	45,023	28,799	16,224	49,644	34,124	15,520
Thána and Kolaba	28,557	17,147	11,410	40,979	25,177	15,802
Ratnagiri, Kánara and Konkan	126,414	79,388	47,026	166,130	110,905	55,225
Poona	69,004	38,080	30,924	54,543	30,557	23,986
Deccan	73,475	44,318	29,157	61,579	40,349	21,230
Karnatak	4,937	2,715	2,222	3,271	2,024	1,247
Sind	6,591	4,010	2,581	2,804	1,801	1,003
Gujarát States	91,577	57,949	33,628	84,956	54,729	30,227
Other Bombay States ...	7,103	4,489	2,613	16,175	10,405	5,770
Baroda	3,906	2,437	1,469	8,857	6,106	2,751
Bengal	4,226	3,066	1,160	3,845	2,773	1,072
Portuguese India	21,938	15,379	6,559	21,399	15,758	5,641
Madras	6,826	4,392	2,434	8,344	5,787	2,557
Mysore and Coorg	711	478	233	836	592	244
Central Provinces	2,096	1,484	612	1,272	830	442
Berár	295	202	93	682	421	261
Hyderábád	8,525	4,906	3,619	9,518	5,619	3,899
Central India and Rájputána ...	11,469	9,729	1,740	16,154	13,674	2,480
Assam	10	5	5	82	45	37
Pondicherry	.....	.....	.....	50	32	18
Upper India	13,471	9,666	3,805	47,695	36,274	11,421
Burma	52	42	10	160	109	51
Asia	7,907	6,196	1,711	6,467	4,619	1,848
Europe	6,023	4,903	1,120	7,663	6,223	1,440
Africa	619	388	231	736	437	299
America	114	91	23	170	116	54
Australia	36	27	9	38	22	16
Born at sea	.....	.....	.....	27	17	10
Unreturned	17,607	10,417	7,190	1,956	1,277	679

These were treated, as far as was possible, at the census separately from religion, and were classified by usual or traditional occupation. The following is the scheme of classification :—

Class.	Group.
A.—AGRICULTURAL...	1 Military and Dominant 2 Other Agricultural. { a. Land-holders, b. Graziers, c. Agricultural labourers. 3 Foreign Recruits. 4 Forest and Hill Tribes.
B.—PROFESSIONAL...	5 Priests. 6 Devotees. 7 Temple-servants. 8 Genealogists. 9 Writers. 10 Astrologers. 11 Musicians and Ballad-reciters. 12 Dancers and Singers. 13 Actors and Mimes.
C.—COMMERCIAL ...	14 Traders. 15 Pedlars. 16 Carriers.
D.—ARTISAN AND VILLAGE MENIAL.	17 Goldsmiths. 18 Barbers. 19 Blacksmiths. 20 Carpenters and Turners. 21 Brass and Copper smiths. 21a Castes employed on any one or more of the above five occupations. 22 Tailors. 22a Grain-parchers and Confectioners. 22b Perfumers, Drug preparers and Betel-leaf sellers. 23 Weavers, Calenderers and Dyers. 24 Washermen.
D.—ARTISAN AND VILLAGE MENIAL—*continued.*	25 Cotton-cleaners. 26 Shepherds and Wool-weavers. 27 Oil-pressers. 28 Potters. 29 Glass-workers. 30 Salt, &c., workers. 31 Lime-burners. 32 Goldsmiths' refuse collectors. 33 Gold-washers. 34 Iron-smelters. 35 Fishermen, Boatmen, Pálki-bearers, Cooks, &c. 36 Distillers and Toddy-drawers. 37 Butchers. 38 Leather-workers 38a Village-watchmen. 39 Scavengers.
E.—VAGRANT, MINOR ARTISANS AND PERFORMERS, &c.	40 Grindstone-makers and Stone-quarriers. 41 Earth-workers and Stone-dressers. 42 Knife-grinders. 43 Mat-makers and Cane-splitters. 44 Hunters, Fowlers, &c. 45 Miscellaneous and disreputable livers. 46 Tumblers and Acrobats. 47 Jugglers, Snake-charmers and Animal-exhibitors.
F.—RACES AND NATIONALITIES.	48 Non-Indian Asiatic Races, Sayads, Shekhs, Arabs, Moghals, Pathans, &c. 49 Mixed Asiatic Races. 50 Non-Asiatic Races. 51 Eurasians. 52 Christian Converts.

In a country so exclusively agricultural as an Indian province, it is to be expected that the castes and tribes would fall mainly under the second group. Of the total number of 1,300 castes rather over 300 come under it, about 100 under the trading class and 88 under Non-Indian-Asiatic races. But it is not so much in the number of the separate castes and sub-divisions that the agricultural class surpasses the others, as in the size of these castes. More than 43·5 of the whole population comes under them, and this is not surprising when the occupation statistics are referred to, though a man's occupation cannot now be told from his caste with the certainty it could have been in times past. The accompanying table shows the distribution of the classes over the divisions of the province :—

Group.	Total strength.			Territorial distribution.					Percentage to total population.	Number of females to 10,000 males.
	Total.	Male.	Female.	Gujarát.	Deccan.	Konkan.	Karnátak.	Bombay and Aden.		
1. Military and Dominant	623,434	324,198	299,236	456,953	71,600	8,827	72,214	14,500	2·60	9,291
2a. Land-holders	9,534,021	4,865,920	4,668,101	2,808,537	3,157,208	1,376,661	1,968,190	223,425	39·83	9,593
2b. Graziers	485,045	251,594	233,451	403,825	26,946	29,880	18,516	5,878	2·03	9,278
2c. Agricultural labourers	439,702	223,747	215,955	109,632	29,981	19,458	171,228	19,403	1·83	9,650
4. Forest and Hill Tribes	1,527,358	773,851	753,507	831,439	402,316	248,210	3,858	1,535	6·38	9,724
5. Priests	1,248,147	650,113	598,034	439,219	274,930	204,396	276,870	50,732	5·21	9,199
6. Devotees	170,931	95,981	74,950	124,191	34,099	6,902	3,948	1,791	·71	7,808
7. Temple-servants	75,775	37,915	37,860	671	32,681	3,610	17,296	1,047	·32	9,885
8. Genealogists	77,356	40,945	36,411	58,599	4,575	2,092	1,253	537	·32	8,892
9. Writers	30,010	15,483	14,527	3,915	4,188	13,139	2,257	6,511	·13	9,383
10. Astrologers	10,259	4,891	5,368	93	8,363	1,061	697	45	·04	10,975
11. Musicians and Ballad-reciters ...	25,327	12,684	12,643	18,628	4,221	131	2,339	10	·11	9,983
12. Dancers and Singers	23,113	10,954	12,159	1,695	8,050	9,481	3,086	221	·09	11,100
13. Actors and Mimes...	7,592	4,129	3,463	6,744	285	360	156	38	·03	8,387
14 Traders	1,293,722	670,490	623,232	725,972	198,246	78,062	214,225	77,217	5·40	9,293
16. Carriers	151,804	79,131	72,673	26,732	116,685	4,951	1,064	2,372	·63	9,180
17. Goldsmiths	184,676	94,523	90,153	57,202	67,928	38,408	14,734	6,404	·77	9,537
18. Barbers	276,766	142,145	134,621	140,263	76,638	21,906	32,104	5,985	1·16	9,470
19. Blacksmiths	138,185	71,245	66,940	86,766	32,380	6,565	8,073	4,401	·58	9,395
20. Carpenters and Turners	286,085	146,718	139,367	117,086	66,251	40,146	56,351	6,251	1·19	9,498
21. Brass and Copper-smiths ...	50,986	26,140	24,846	11,263	22,374	7,711	5,932	3,706	·21	9,504
21a. Castes employed on any one or more of the above five occupations	55,961	28,751	27,210	...	3,761	3,255	48,763	182	·23	9,464
22. Tailors	158,227	80,956	77,271	89,908	58,124	6,656	14,840	8,699	·66	9,544
22a. Grain-parchers and Confectioners	3,594	2,001	1,593	2,009	1,274	72	9	140	·01	7,961
22b. Perfumers, Drug preparers and betel-leaf sellers	13,980	7,112	6,868	965	7,978	3,728	1,182	132	·06	9,656
23. Weavers, Calenderers and Dyers.	440,342	227,130	213,212	231,122	104,391	6,091	91,134	7,614	1·84	9,387
24. Washermen...	95,252	48,570	46,682	10,095	38,341	14,711	25,318	3,789	·39	9,590
25. Cotton-cleaners	20,817	10,471	10,346	16,231	2,400	14	2,063	19	·09	9,880
26. Shepherds and Wool-weavers ...	730,161	365,744	364,417	4,649	299,996	15,129	409,018	1,369	3·05	9,969
27. Oil-pressers	265,520	136,062	129,458	73,140	77,384	24,778	85,876	4,342	1·11	9,515
28. Potters	320,333	161,218	159,115	210,545	49,034	26,330	30,507	3,817	1·34	9,869
29. Glass-workers	3,462	1,820	1,642	1,209	1,761	5	430	7	·01	9,021
30. Salt, &c., workers...	257,272	129,068	128,204	537	1,137	248,286	22	7,290	1·07	9,933
31. Lime-burners	16,288	8,119	8,119	1,657	14,555	25	...	1	·07	10,000
32. Goldsmith's Refuse Collectors ...	296	135	161	172	55	1	67	1	...	11,926
34. Iron-smelters	771	380	391	...	761	13	...	7	...	10,289
35. Fishermen, Boatmen, Pálki-bearers, Cooks, &c.	241,808	119,431	122,377	117,731	38,446	81,810	10,757	3,064	1·01	10,248

Group—*continued.*	Total strength.			Territorial distribution.					Percentage to total population.	Number of females to 10,000 males.
	Total.	Male.	Female.	Gujarát.	Deccan.	Konkan.	Karnátak.	Bombay and Aden.		
36. Distillers and Toddy-drawers ...	178,130	88,481	89,649	6,910	2,425	136,626	2,487	29,682	·74	10,132
37. Butchers	14,602	7,291	7,301	7,150	6,208	766	353	115	·06	10,015
38. Leather-workers	344,307	176,550	167,847	135,039	119,548	27,018	46,518	16,304	1·44	9,507
38a. Village-watchmen...	372,388	185,644	186,644	21,313	181,817	7,139	160,119	1,579	1·55	10,053
39. Scavengers	1,597,778	803,537	794,241	551,475	562,047	236,164	210,056	38,036	6·67	9,884
40. Grind-stone makers and stone quarriers	16,718	8,568	8,150	2,053	9,785	3,167	966	142	·07	9,518
41. Earth-workers and stone dressers	93,159	47,292	45,867	12,589	26,037	3,480	50,901	152	·39	9,698
42. Knife-grinders	6,174	3,103	3,071	4,987	414	35	710	98	·03	9,896
43. Mat-makers and cane-splitters ...	22,009	11,067	11,002	440	11,604	3,480	5,894	561	·09	9,941
44. Hunters, Fowlers, &c.	87,044	45,569	41,475	77,414	8,795	137	18	680	·36	9,101
45. Miscellaneous and Disreputable Livers	41,082	22,060	19,022	4,473	9,750	1,528	21,787	3,544	·17	8,622
46. Tumblers and Acrobats... ...	6,171	2,729	3,442	1,298	3,135	312	1,333	93	·03	12,613
47. Jugglers, Snake-charmers and Animal-exhibitors	407	213	194	45	330	10	18	...	...	9,108
48. Non-Indian Asiatic races ...	1,669,184	870,096	799,092	511,123	350,028	186,510	398,283	223,244	6·97	9,184
49. Mixed Asiatic races	13,128	6,603	6,525	477	1,553	3,360	41	7,697	·05	9,882
50. Non-Asiatic races	41,068	20,797	13,271	7,086	9,830	720	1,907	22,826	·18	4,4 4
51. Burmesians	7,856	4,079	3,777	473	1,715	424	883	4,356	·03	9,259
52. Christian converts	126,766	71,343	55,423	4,410	12,991	67,590	11,715	30,064	·53	7,793
53. Unclassified and unreturned ...	13,146	8,522	4,624	2,331	2,287	1,172	1,298	6,058	·05	5,426
Grand Total ...	23,937,474	12,262,204	11,675,270	8,621,310	6,645,956	3,294,288	4,510,077	865,843	...	...

The most prominent under each only are noticed below. Nearly all those classed as Military are Rájputs, or Kshatrias, the second of the four classical castes, or Káthis, the tribe that has given its name to Káthiáwár. Of the land-holding class the most important is that of the Kunbis or Maráthas, as they are indiscriminately termed. They are shewn separately according to the name, which they themselves preferred to return. They number in all slightly over 6,700,000, and are divided into an innumerable number of divisions, which however have little practical signification. In Gujarát they are called almost universally Kunbis, in the Deccan the proportion is about two Kunbis to one Marátha, in the Konkan they are as nearly as possible level and in the Karnátak the Maráthás outnumber the Kunbis by four to three. The further southward one goes the more fashionable one finds the term Marátha. Next come the Kolis, also with innumerable divisions. They number 2,100,000, of whom 1,680,000 are in Gujarát, 250,000 in the Deccan and 136,000 in the Konkan. In the Karnátak there are 476,000 Panchamsalis and 273,000 persons calling themselves Lingáyats, which was of course a purely religious body, but has now become practically a caste. The Mális number 313,000, of whom 258,000 are in the Deccan. Of the graziers the Rabáris come first with 157,000, Ahirs 130,000 Bharwáds 118,000 and Gaulis 58,000. The first three are almost entirely in Gujarát and the last, all over the presidency except there. Of the Forest and Hill Tribes the Bhils are far the most numerous with 792,000 in Gujarát and the Deccan. The Warli number 167,000, chiefly in the Konkan, Thákurs 130,000 chiefly in the Konkan but also in the Deccan, and Gujarát Dublás 102,000 in Gujarát chiefly, and Katkaris 74,000 chiefly in the Konkan. The Brahmans are included among the priestly classes, though it can scarcely be said now to be their usual occupation, so many of them are clerks and servants of all sorts. There are 423,000 of them in Gujarát, 258,000 in the Deccan, 200,000 in the Konkan, 159,000 in the Karnátak and 50,000 in Bombay. Altogether there are, to be exact, 1,091,191 shewn in the returns. The only other priestly class returned in any numbers was the Jangams, of whom there were 136,968. Only about 18,000 of these were outside the Karnátak. The castes in the groups numbered 6 to 13 are mostly small, but there were 46,000 Báwás, 39,000 Gosávis, nearly 75,000 Guravs, 38,000 Bháts and about the same number of Chárans. The trading group is the most difficult of classification on account of the vague terms used, meaning often simply merchant or trader, and confusion in the use of the sub-divisions. There are 208,000 Shrimális, 121,000 Bohoras, 116,000 Oswáls, 90,000 Wanias not further described, 84,000 Memans, and 59,000 described simply as Jains. Wanjaris are the principal carriers, numbering 134,000. Of the goldsmiths, Sonárs number 158,000 and the Agasalers, who take their place in the Karnátak and partly in the Konkan, 26,000. There is about as much difference between Nhavis and Hajjáms as between Kunbis and Maráthas. The former number nearly 137,000 and the latter nearly 114,000. The Walands are nearly 25,000. The Lohárs are practically the only caste among the blacksmiths, numbering over 134,000. Less than 3,000 are returned as Ghisadis. Among carpenters Sutárs are over 196,000, Gaundis nearly 46,000, Badigars nearly 25,000, Kharádis just under 10,000 and Pánchkalsis over 6,000, Kasars are nearly 43,000 among the coppersmiths, and Panchal is the only caste in the group numbered 21*a*. Shimpis are over 48,500 and the very closely connected caste of Darji 70,000. In group 22*b* Baris are just under 7,000. The weavers are a very varied group and there are four castes numbering over 50,000 and five others over 20,000. They are Thákarda, Sáli, Ráwal, Khatri, Koshti, Momin, Hatgar, Bhavsar and Jadar. Among washermen there are 58,000 Dhobis and 37,000 Parits. Among shepherds Dhangars are nearly 456,000 and Kurubs 254,000. Telis are 106,000, Ghanchis 73,000 and Ganigars nearly 86,000 among the oilpressers. The potters are practically all Kumbhárs. The glass-workers are Maniaris 1,000 and Kacharis just under 1,000. Agris are 224,000 and Gaudes, who are practically the same, are 33,000 among salt-workers. Lonaris and Chunaris are the lime-burners and Joharis the iron-smelters. Fishermen are a very varied group. It is a question whether the Kolis should not have come into this group, but unless the occupa-

POPULATION AND CENSUS.

tions had been abstracted with the castes, which was quite impossible, it was not feasible to shew the same caste in more than one group. The largest caste in the group is the Bhoi with 69,000 and next the Machi with 49,000. Kharvi number 35,000 and Khavás 27,000. Among toddy drawers and distillers the Bhandáris are over 166,000 and the Kaláls 11,000. The butchers are nearly all Khatkis. Among the leather-workers Chambhárs number 228,000, Mochis 63,000 and there are other well represented castes, such as the Dhors, Samgars and Khalpos. Among the village-watchmen the Mángs have been included and number 257,000, and the Rámoshis are nearly 64,000. The Mahárs have been shewn among the scavengers and so have the similar castes of Dheds and Holars. They number respectively a few short of 844,000, 367,000 and 220,000. Bhangis are 142,000 and Meghwals nearly 43,000. Groups 44 and 45 are very closely allied. Beldars are 13,000 and Waddars 78,000. Kaickadis are 8,888 and Buruds 8,088. Among the shikari tribes the Wághris are nearly 76,000 and the Párdhis 9,000. The non-Indian Asiatics are chiefly Mussalmán tribes, such as Shaikh 909,000, Pathan 154,000 and Sayad 130,000. The non-Asiatic races are Europeans 27,409, Siddhis 7,644 and Somális 7,341.

Occupations.

The occupations of the people were classified according to the following scheme :—

Class.	Order.	Sub-order, group, where any.
A. Government ...	I. Administration ...	1. Service of the Imperial and Provincial Governments.
		2. Service of Local and Municipal Bodies.
		3. Village service.
	II. Defence	4. Army.
		5. Navy and Marine.
	III. Foreign and Feudatory State service.	6. Administrative service.
		7. Military and other service.
B. Pasture and Agriculture.	IV. Provision and care of cattle.	8. Stock breeding and dealing. (a) Horses and horned cattle. (b) Other draught animals. (c) Small cattle.
		9. Subsidiary services in connection with animals. (a) Training and care of cattle. (b) Vermin destroying.
	V. Agriculture ...	10. Interest in land.
		11. Agricultural labour.
		12. Growth of special produce, of trees, &c.
		13. Agricultural training and supervision.
C. Personal services ...	VI. Personal, Household and Sanitary services.	14. Personal and domestic services.
		15. Non-domestic entertainment.
		16. Sanitation.
D. Preparation and supply of material substances.	VII. Food and drink, &c.	17. Animal food.
		18. Vegetable food.
		19. Drinks, condiments and narcotics.
	VIII. Light, firing and forage.	20. Lighting.
		21. Fuel and forage.
	IX. Buildings... ...	22. Building materials.
		23. Artificers in building.
	X. Vehicles and vessels.	24. Railway plant.
		25. Carts, carriages, &c.
		26. Ships and boats.
	XI. Supplementary requirements.	27. Paper.
		28. Books and prints.
		29. Watches, clocks and scientific instruments.
		30. Carving and engraving.
		31. Toys and curiosities.
		32. Music and musical instruments.
		33. Necklaces, garlands, sacred threads, bracelets and beads, &c.
		34. Furniture.
		35. Harness.
		36. Tools and Machinery.
		37. Arms and Ammunition.
	XII. Textile fabrics and dress.	38. Wool and Fur.
		39. Silk.
		40. Cotton.
		41. Hemp, flax and coir, &c.
		42. Dress.
	XIII. Metals and Precious stones.	43. Gold, silver and precious stones.
		44. Brass, copper and bell metal.
		45. Tin, zinc, quicksilver and lead.
		46. Iron and steel.
	XIV. Glass, Pottery, and stone ware.	47. Glass and China ware.
		48. Earthen and stone ware.
	XV. Wood, Cane and leaves, &c.	49. Wood and Bamboos.
		50. Cane, matting and leaves, &c.
	XVI. Drugs, dyes, gums, &c.	51. Gums, Resins and similar Forest produce.
		52. Drugs, dyes, pigments, &c.
	XVII. Leather	53. Leather, horns, bones and grease.

- E. Commerce, transport and storage.
  - XVIII. Commerce ...
    - 54. Money and Securities.
    - 55. General merchandise.
    - 56. Dealing unspecified.
    - 57. Middlemen ...
      - (a) Brokers, agents.
      - (b) Contractors, Farmers.
  - XIX. Transport and storage.
    - 58. Railways ...
      - (a) Administration.
      - (b) Working Staff.
    - 59. Road ... ...
      - (a) Carts, Carriages, Trams, &c.
      - (b) Pack animals.
    - 60. Water ... ...
      - (a) Vessel owners, Agents, &c.
      - (b) Working Staff.
    - 61. Messages ...
      - (a) Postal and other messengers.
      - (b) Telegraph and Telephone
    - 62. Storage and weighing.
- F. Professions ... ...
  - XX. Learned and artistic professions.
    - 63. Religion ...
      - (a) Priests, ministers, &c.
      - (b) Subsidiary religious services.
    - 64. Education.
    - 65. Literature.
    - 66. Law.
    - 67. Medicine ...
      - (a) Practitioners.
      - (b) Subsidiary medical services.
    - 68. Engineering and Survey.
      - (a) Engineers and surveyors.
      - (b) Subsidiary Staff.
    - 69. Other sciences...
      - (a) Astronomy and natural sciences.
      - (b) Minor sciences.
    - 70. Pictorial art, sculpture, &c.
    - 71. Music, acting and dancing.
  - XXI. Sport and amusements.
    - 72. Sport.
    - 73. Exhibitions and games.
      - (a) Catching, training and exhibiting animals.
      - (b) Conjuring, fortune-telling and similar exhibitions.
      - (c) Acrobatic and athletic exhibitions.
      - (d) Service of places of entertainment.
- G. Indefinite and Independent.
  - XXII. Complex occupations. ..... (To be sub-divided Provincially.)
  - XXIII. Indefinite ...
    - 74. Unskilled labour.
      - (a) Earth-work and special branches of labour.
      - (b) General unskilled labour.
    - 75. Undefined and disreputable means of livelihood.
  - XXIV. Independent of work.
    - 76. Property and alms.
      - (a) Property and allowances.
      - (b) Charity and endowments.
    - 77. At the public charge.
      - (a) Pensions.
      - (b) Prisoners, &c.

In all about 500 separate occupations were shown, as well as combinations of more than one occupation, where one of these was any form of agriculture. It will be noticed that the scheme makes no allowance for unemployed or non-workers. The reason for this is that instead of following the customary plan of asking the people to enter the employment which each one actually follows, they were asked to shew that on which they depended for their subsistence. Thus women and children who merely looked after household matters or were attending school and not engaged earning wages were shewn under the occupation of their husband, father or other supporter. This plan has two advantages. First it appears to be more important from an economic point of view to ascertain the numbers actually subsisting on each employment, rather than the numbers actively engaged on it. Secondly the numbers of the children under 5 and of the boys and girls between 5 and 15 are shewn separately from the adults under each occupation, so that it is possible to divide them into workers and non-workers for any one acquainted with the habits of the people with respect to the age at which a boy begins to work actively at each trade, and the extent to which female labour is required in it. On the other hand where all not actively engaged upon remunerative work are shewn merely as wives or as unemployed, it is impossible afterwards to assign the number of these dependent on the workers of the various occupations. It is impossible within any reasonable limits to give details of even a fraction of the occupations, but the following tables give a very good idea of the way in which the population is distributed over the classes, orders, sub-orders and groups. The urban is distinguished from the rural area :—

Percentage of persons returned under each Class and Order of Occupation to the total Population by Sex.

Class and Order.	Total Population.		Urban.		Rural.	
	Male.	Female.	Male.	Female.	Male.	Female.
Class A ...	3·96	3·16	6·48	5·79	2·22	2·60
" B ...	58·74	60·56	16·81	17·75	68·93	69·61
" C ...	2·70	2·39	5·75	6·20	1·72	1·58
" D ...	21·22	21·38	37·55	39·43	17·25	17·56
" E ...	4·65	3·58	13·42	10·71	2·54	2·06
" F ...	2·3[illegible]	2·09	5·36	5·39	1·58	1·39
" G ...	6·48	6·83	13·56	14·62	4·76	5·19
Order I ...	3·48	3·01	4·73	5·19	3·18	2·55
" II ...	·35	·11	1·69	·52	·02	·02
" III ...	·03	·04	·07	·06	·03	·02
" IV ...	1·72	1·01	·73	·60	1·97	1·10
" V ...	57·02	59·55	16·08	17·15	66·96	68·52
" VI ...	3·70	2·39	6·75	6·20	1·72	1·58
" VII ...	7·69	7·40	9·46	9·16	7·53	7·03
" VIII ...	1·39	1·87	1·72	2·11	1·30	1·58
" IX ...	·87	·73	2·06	1·97	·57	·47
Order X ...	·09	·08	·38	·34	·02	·02
" XI ...	·66	·63	1·77	1·78	·30	·29
" XII ...	5·11	5·76	14·61	15·46	2·80	3·71
" XIV ...	1·57	1·44	3·42	3·35	1·12	1·04
" XV ...	·62	·62	·60	·73	·02	·00
" XV ...	1·78	1·69	2·86	2·80	1·52	1·45
" XVI ...	·12	·12	·26	·29	·08	·09
" XVII ...	1·32	1·33	1·42	1·44	1·30	1·17
" XVIII ...	2·29	1·96	5·52	6·02	1·34	1·08
" XIX ...	2·38	1·63	6·90	4·69	1·30	·98
" XX ...	2·24	2·01	5·25	5·80	1·51	1·32
" XXI ...	·08	·07	·11	·09	·07	·07
" XXIII ...	4·40	5·00	10·23	11·30	2·98	3·68
" XXIV ...	2·08	1·53	3·33	3·82	1·78	1·51
Unreturned ...	·02	·01	·08	·09	...	...

Percentage of persons returned under each Sub-order or Group of Occupation to total Population by Sex.

Sub-order or Group.	Total Population.		Urban.		Rural.	
	Male.	Female.	Male.	Female.	Male.	Female.
1. Service of the Imperial and Provincial Governments ...	1·36	1·05	3·45	3·64	·73	·50
2. Service of Local and Municipal bodies	·16	·14	·67	·67	·03	·02
3. Village Service	2·06	1·32	·60	·87	2·41	2·02
4. Army...	·34	·11	1·66	·51	·02	·02
5. Navy and Marine	...	...	·03	·01	...	...
6. Administrative Service ...	·02	·03	·07	·08	·02	·02
7. Military and other Service	·01	·01	·01	·01	·...	·01
8(a). Horses and horned cattle	·63	·35	·35	·25	·95	·37
8(b). Other draught animals.	·03	·02	·02	·01	·04	·03
8(c). Small cattle	·82	·60	·36	·22	·95	·68
9 (a). Training and care of cattle	·03	·03	·10	·12	·01	·01
9(b). Vermin destroying ...	...	...	...	...	·02	·01
10. Interest in land	46·53	48·28	10·29	11·53	55·33	56·05
11. Agricultural labour ...	10·28	11·11	5·23	5·13	11·51	12·38
12. Growth of special produce of trees, &c.	·19	·15	·54	.49	·10	·08
13. Agricultural training and supervision	·02	·01	·02	·01	·01	·01
14. Personal and domestic services	2·48	2·17	5·97	5·43	1·63	1·48
15. Non-domestic entertainment	·04	·05	·10	·11	·02	·04
16. Sanitation	·18	·17	·66	·68	·06	·06
17. Animal food	1·55	1·65	2·33	2·70	1·37	1·43
18. Vegetable food	4·72	4·46	3·42	3·65	5·03	4·63
19. Drinks, condiments and narcotics	1·42	1·29	2·70	2·83	1·11	·96
20. Lighting	·57	·57	·93	1·06	·46	·47
21. Fuel and forage	·81	1·10	·78	1·06	·82	1·10
22. Building materials ...	·.0	·17	·37	·30	·16	·13
23. Artificers in building ...	·66	·58	1·69	1·62	·41	·33
24. Railway plant	·06	·04	·27	·22	·01	·01
25. Carts, carriages, &c. ...	·02	0·2	·05	·05	·01	·01
26. Ships and boats	·01	0·2	·05	·08	...	...
27. Paper	·04	·04	·18	·22	...	...
28. Books and prints... ...	·08	0·6	·41	·35	...	·01
29. Watches, clocks and scientific instruments ...	·02	·01	·07	·07	...	...
30. Carving and engraving...	·02	·01	·06	·06	·01	·01
31. Toys and curiosities ...	·18	·18	·15	·16	·20	·18
32. Music and musical instruments	...	...	·01	·01	...	...
32. Necklaces, garlands, sacred threads, bracelets and beads, &c.	·18	·20	·39	·47	·13	·14
34. Furniture	·02	·01	·06	·04	·01	·01
35. Harness	·01	·01	·02	·02	·01	...
36. Tools and machinery ...	·10	·08	·36	·32	·08	·03
37. Arms and ammunition...	·02	·02	·06	·06	·01	·01
38. Wool and fur	·20	·30	·25	·32	·26	·30
39. Silk	·21	·32	·91	1·52	·04	·07
40. Cotton	2·96	3·22	8·72	5·86	1·55	2·03
41. Hemp, flax and coir, &c.	·30	·34	·18	·25	·33	·36
42. Dress	1·38	1·57	4·54	4·50	·61	·95
43. Gold, silver and precious stones	·86	·80	1·79	1·78	·64	·59
44 Brass, copper and bell metal	·18	·16	·65	·68	·06	·05
45 Tin, zinc, quick-silver and lead	·05	·01	·19	·19	·02	·01
46 Iron and steel	·46	·44	·79	·60	·40	·38
47 Glass and china-ware ...	·01	·01	·04	·05	·01	·01
48 Earthen and stone-ware.	·69	·60	·55	·69	·62	·60
49 Wood and bamboos ...	1·34	1·14	2·37	2·12	1·10	·93
50 Cane-matting and leaves, &c.	·44	·54	·50	·68	·42	·51
51 Gums, resins and similar forest produce ...	·02	·02	·01	·03	·02	·02
52 Drugs, dyes, pigments, &c.	·10	·10	·24	·26	·06	·07.
53 Leather, horns, bones and grease...	1·32	1·23	1·42	1·44	1·10	1·19
54 Money and securities ...	·63	·60	1·48	1·55	·42	·40
55 General merchandise ...	·67	·54	2·30	1·98	·28	·23
56 Dealing unspecified ...	·65	·55	1·40	1·27	·47	·39
57 (a). Brokers, agents ...	·24	·20	1·10	·95	·04	·03
57 (b). Contractors, farmers.	·07	·06	·23	·26	·04	·03
58 (a). Administration ...	·13	·11	·49	·47	·04	·04
58 (b). Working staff ...	·25	·20	·72	·65	·14	·10
59 (a). Carts, carriages, trams, &c....	·55	·37	1·72	1·37	·27	·16
59 (b). Pack animals ...	·27	·26	·15	·11	·30	·23
60 (a). Vessel owners, agents, &c.	·04	·04	·07	·03	·04	·04
60 (b). Working staff ...	·64	·32	2·01	·59	·30	·20
61 (a). Postal service ...	·29	·14	·61	·49	·10	·06
61 (b). Telegraph service ...	·01	·01	·06	·06	...	...
62 Storage	·32	·23	1·04	·88	·10	·09
63 (a). Priests	·19	·18	·50	·55	·11	·10
63 (b). Religious service ...	·98	·59	1·80	1·70	·79	·72
64 Education	·20	·22	·60	·62	·18	·13
65 Literature	·18	·14	·76	·64	·05	·03
66 Law	·09	·10	·32	·47	·03	·03
67 (a). Medical practitioners	·10	·10	·30	·34	·05	·06
67 (b). Medical service ...	·02	·02	·10	·09	...	...
68 (a). Engineers and Surveyors	·03	·03	·16	·14	...	·01
68 (b). Do. Staff ...	·09	·08	·20	·23	·06	·05
69 (a). Astronomers ...	·01	...	·01	·01	·01	...
69 (b). Minor sciences ...	·04	·04	·01	·05	·03	·04
70 Printing, &c.	·02	·01	·06	·04	...	...
71 Music, &c....	·23	·19	·38	·41	·20	·14
72 Sport	·02	·01	·03	·02	·01	·01
73 (a). Animal training ...	·01	·01	·01	·01	·01	·01
73 (b). Conjuring, &c. ...	·03	·02	·04	·04	·03	·02
73 (c). Acrobats	·02	·02	·02	·01	·02	·02
73 (d). Gymkhána service ...	...	·01	·01	·01	...	·01
74 (a). Earth-work	·61	1·06	1·00	2·25	·53	·81
74 (b). Unskilled labour ...	3·70	3·72	6·94	8·38	2·43	2·74
75 Disreputable	·09	·22	·30	·67	·03	·13
76 (a). Property	·12	·16	·60	·69	·02	·04
76 (b). Charity	1·66	1·42	1·99	1·86	1·68	1·33
77 (a). Pensions	·25	·24	·89	·70	·15	·13
77 (b). Prisoners	·05	·01	·15	·02	·03	...

As the urban population is only 3,502,678 against 15,398,445 rural, the figures for the two combined naturally resemble the latter more nearly than the former. Pasture and agriculture employ little less than 60 per cent. of the entire population and of the rural portion of it over 69, or considerably more than two-thirds, and it must be remembered that in this number persons subsisting partly on the land, whether as owners, tenants or labourers, and partly on another occupation are not counted under this class, but under that of the second occupation. Next in numbers to this class come the preparers of material substances with over 21 per cent. of the total population. As might be expected, this is the most numerous class in towns, with a percentage more than double what it is in the country. These two classes between them take up over 86

per cent. in the country and over 80 per cent. in the total population. The indefinite and independent class comes next with 6·48 and 6·83. It includes all unskilled labourers, such as road and railway coolies and rice-pounders, general labourers and those of undefined and disreputable employments. Then come those engaged in commerce, transport and storage, with 4·66 and 3·58. Then the Government servants, among whom are included, from His Excellency the Governor down to village menials, all employed in the administration of the country, of local bodies and of villages, but not persons, who like schoolmasters, foresters and engineers are merely in its service, and employed professionally but not in its administration. They number 3·86 and 8·15 per cent. Personal and domestic servants number 2·70 and 2·39 per cent. Lastly come professional persons with only 2·32 and 2·09. Males, it will be seen, outnumber the females proportionally in Government service, personal service, commerce and the professions. These are the classes in which the workers are almost exclusively males; and though the majority of their wives and children would be classed as dependent on the same occupation, there must be a considerable number who work independently at something else and therefore go to swell the ranks of one of the other classes. So far the classes. The orders can be only glanced at. Out of the two orders into which class B is divided, provision and care of cattle and agriculture, the numbers employed on the former are comparatively very small, and this is no doubt due in part to the fact that the care of cattle is considered to be, as indeed it is, an essential part of agricultural labour. The actual numbers of the two orders are—

	British Territory.	Native States.
Cattle	259,837	212,223
Agriculture	11,008,233	4,620,704

The children between 5 and 15 are in a much larger proportion, 35·8, among the former than the latter, 24·3. So in Native States the percentages are 28·4 and 24·9. The reason is that so many children of agriculturists are employed in looking after the cattle. Under D., preparation and supply of material substances, there are 11 orders. Out of the whole percentage, 21·22, for male of this order, 7·69 or more than a third are employed on food and drink, and 5·11, or nearly one-fourth, on textile fabrics and dress. This leaves only five-twelfths for the other nine orders. The most numerously followed of them are wood and cane 1·78, metals and precious stones 1·57, lighting 1·39, and leather 1·32. The numbers employed on vehicles and on drugs are especially small. In towns on account of the large cotton spinning and ginning factories, the latter of which work for a few months only in the year, but were working at the time of the census, the proportion of persons employed on textile fabrics is far higher than that of any other order, and is over 14 per cent. for males and 15 for females. The others are very much the same for the towns as the country at large. The indefinite and independent comprise two orders, the indefinite or unskilled workers, and those subsisting on their means, on charity or at the public charge, either as prisoners, or pensioners. Of the two the former is the larger with 4·40 and 5·00 as against 2·08 and 1·83. The commercial class is divided into two orders, those who are actually engaged in commercial transactions and those who are employed in transport and storage. The two shew almost equal numbers 2·88 and 1·95 against 2·38 and 1·63. Government service is divided into three orders, administration, defence and foreign service, and the first named employs more than ten times as many as the other two together. The number employed on defence is strikingly small. The actual numbers here are worth giving so as to compare them for British Territory and Native States:—

	British Territory.		Native States.	
	Males.	Females.	Males.	Females.
I.—Administration...	340,972	274,263	159,024	127,464
II.—Defence	33,981	10,061	12,215	7,767
III.—Foreign	3,088	3,543	4,892	3,987

The personal service class is not divided into orders. The professional class is divided into two, learned and artistic, and sport and amusement. The former is a fairly well represented order, and ranks sixth in number, but the other is the smallest of all, containing only ·08 and ·07 of the total population of each sex.

Only in one order, "V. Agriculture" is it worth while discussing the individual occupations, and here only in the two sub-orders, interest in land and agricultural labour. The figures are—

Occupation.

	British Territory.	Native States.
37. Land occupants, not cultivating	316,890	127,336
38. Land occupants, cultivating	6,026,630	1,519,426
39. Lessees of villages...	6,214	3,571
40. Tenants and sharers, not cultivating	332	8,817
41. Tenants and sharers, cultivating	2,603,868	2,446,744
42. Farm servants	582,475	138,474
43. Field labourers	1,436,848	364,709

The distinction between the two last is that farm servants are supposed to be persons employed permanently or for long periods, and field labourers those engaged for a short period only or for the job. The variations in the districts are of importance here, considering what a vast proportion of the people is maintained simply by the land. Two tables are therefore given to shew, first the percentage of each of these agricultural occupations on the total agricultural population of each district, and secondly the percentage of the agricultural population on the total, also for each district.

Percentage of each Agricultural occupations to total of Agriculture (Order V) by Districts.

District.	Land occupants, not cultivating. 37.	Land occupants, cultivating. 38.	Lessees of villages, &c. 39.	Tenants not cultivating. 40	Tenants and sharers cultivating. 41	Farm servants. 42	Field labourers and crop watchers. 43	Growers of special products and trees. Sub-order. 12.	Agricultural training and supervision. Sub-order. 13.
Ahmedábád	4·63	40·054	·07	·0063	32·33	3·15	19·51	·12	·04
Kaira	3·54	48·92	...	·0290	36·54	1·55	9·36	·06	...
Panch Maháls	1·89	70·64	·01	·0051	20·47	4·21	2·92	·17	·10
Broach	2·42	45·37	·02	...	24·99	5·21	21·63	·26	·06
Surat	·69	55·98	·02	...	6·96	4·07	31·69	·10	...
Thána	1·59	43·34	...	·0003	33·53	3·71	17·40	·40	...
Kolába	2·88	46·70	·03	...	41·45	3·66	5·15	·37	...
Ratnágiri	1·19	49·23	·46	·0080	42·76	1·12	5·12	·07	·01
Kánara	5·04	29·40	...	...	51·70	2·64	9·72	1·35	...
Khándesh	·37	57·43	·05	·0001	10·65	8·79	22·48	·19	·02
Násik	1·33	57·88	...	...	18·60	3·65	18·34	·16	·02
Ahmednagar	1·63	71·72	...	·0001	4·03	5·69	16·69	·19	·01
Poona	3·06	79·13	·01	·0020	13·88	4·23	7·65	·46	...
Sholapur	2·69	55·50	...	·0008	13·74	5·68	22·00	·10	·17
Sátára	3·57	78·25	...	...	10·92	·98	6·21	·09	...
Belgaum	2·68	57·02	...	...	21·11	4·85	13·92	·11	...
Dhárwar	4·80	53·75	·04	...	8·19	14·38	18·73	·11	·01
Bijapur	3·15	59·67	...	...	14·58	12·89	9·57	·05	·02
Karáchi	4·37	22·66	·03	...	67·69	·35	3·49	·82	...
Hyderábád	4·43	24·52	·14	...	58·86	7·52	3·33	·52	...
Shikárpur	8·59	58·18	...	...	25·53	2·00	1·75	·64	...
Thar and Párkar ...	1·99	69·29	·02	...	23·29	·73	4·04	·05	...
Upper Sind Frontier ...	16·93	30·94	·13	...	42·33	·87	7·81	·90	·02
Bombay City	8·18	9·22	·15	...	8·17	69·91	·12	10·53	·05
Aden	8·67	9·24	...	...	27·72	9·24	20·79	24·85	...
Total ...	2·87	54·74	·05	...	23·65	5·20	13·05	·29	·02

Percentage of each class to total population by Districts.

District.	Class. A.	B. IV.	B. V.	C.	D.	E.	F	G.
Ahmedábád	2·8	2·4	49·7	2·7	27·5	4·0	4·4	6·4
Kaira	1·9	1·6	69·8	2·1	14·8	2·6	2·9	4·2
Panch Maháls	2·5	1·3	74·9	1·0	9·9	2·9	2·1	5·4
Broach	6·2	1·1	59·8	3·0	16·3	4·7	3·8	5·0
Surat	4·2	1·4	60·7	4·9	17·6	3·5	1·8	5·8
Thána	2·0	·4	68·7	1·9	14·1	2·9	1·3	8·5
Kolába	2·5	·6	71·8	1·1	12·6	3·4	1·6	6·3
Ratnágiri	1·8	·3	74·3	1·2	12·9	4·2	1·4	3·7
Kánara	2·5	·6	63·1	2·2	17·8	3·5	2·6	7·6
Khándesh	3·2	1·5	65·8	1·6	17·4	2·6	1·8	5·9
Násik	4·4	1·0	63·2	1·5	17·5	2·5	1·9	7·9
Ahmednagar	6·1	1·7	64·6	2·3	16·5	1·9	2·3	4·5
Poona	7·4	1·9	57·8	3·3	17·4	3·1	2·8	6·2
Sholápur	4·9	1·4	60·2	2·1	20·0	3·4	2·1	5·8
Sátára	5·0	1·2	69·8	2·3	14·4	1·2	1·6	4·4
Belgaum	3·8	1·2	69·9	1·6	18·0	1·7	1·9	1·8
Dhárwár	2·9	·8	62·9	1·7	20·1	1·5	2·9	7·1
Bijapur	4·9	·7	67·3	1·2	20·4	·9	1·1	3·4
Karáchi	2·4	2·5	45·5	4·9	20·8	10·0	1·3	12·6
Hyderábád	1·4	2·2	35·4	3·1	42·3	5·9	1·8	7·8
Shikárpur	1·1	2·0	33·1	2·7	44·0	7·4	1·5	8·2
Thar and Párkar	·8	4·7	52·5	1·1	27·4	4·5	·5	8·5
Upper Sind Frontier	2·1	2·4	11·1	2·3	68·8	6·1	1·0	6·1
Bombay City	3·9	·2	6·9	8·9	34·4	19·9	5·2	20·1
Aden	11·7	·8	·4	12·2	27·9	24·9	2·6	19·4

Tributary States.

In the following review of the administration of the Native States under the political supervision of the Government of Bombay the States are arranged in groups according to their geographical position. The North Gujarát States, forming the most important group, lie to the north of the Narbada and comprise an area more than twice as large as that of all the remaining States. The South Gujarát States, which lie to the south of the Tápti, are comparatively unimportant. The Marátha States fall into four groups. The North and South Konkan groups lie below the gháts to the north and south of Bombay respectively. The Deccan and Southern Marátha States are situated to the southern and eastern portions of the Deccan plateau. The Province of Sind contains one State. The Settlement at Aden together with the subordinate Somáli Coast and Perim, directly administered by the Government of Bombay, is also included in this review.

The following statement shows the area, the population according to the Census of 1891, and the revenue of States referred to:—

Name.	Area in square miles.	Population according to Census of 1891.	Gross Revenue.
			Rs.
GROUP 1: NORTH GUJARÁT—			
Cutch ...	6,500	558,415	16,72,990
Palanpur-Rádhanpur Group ...	8,000	645,526	16,58,221
Mahi Kántha ...	3,528	581,568	12,53,824
Káthiáwár ...	20,496	2,752,404	1,49,97,969
Cambay ...	350	89,722	7,83,703
Rewa Kántha ...	4,837	726,056	24,08,004
Narukot ...	143	7,450	
GROUP 2: SOUTH GUJARÁT—			
Dharampor ...	794	120,498	3,90,841
Dánsda ...	215	41,373	3,47,451
Sachin ...	42	19,337	2,32,002
GROUP 3: NORTH KONKAN—			
Khándesh Political Agency ...	1,623	59,055	1,75,792
Surgana ...	360	12,398	19,116
Jawhar ...	534	52,831	2,37,444
GROUP 4: SOUTH KONKAN—			
Janjira ...	324	81,780	5,34,017
Savantvádi ...	926	192,948	4,12,903
GROUP 5: DECCAN—			
Akalkot ...	498	75,774	2,81,948
Bhor ...	1,491	155,669	3,59,100
Other Sátára Jághirs ...	844	131,529	5,90,023
Kolhápur ...	2,855	913,131	31,97,522
GROUP 6: SOUTHERN MARÁTHA STATES—			
Sángli ...	1,083	238,945	11,91,836
Other Southern Marátha Jághirs ...	2,936	480,111	18,54,228
Savanur ...	70	16,976	90,810
GROUP 7: SIND—			
Khairpur ...	6,109	131,937	7,95,035
GROUP 8: ADEN ...	*75	44,079	2,28,815
Somali Coast ...	...	.....	2,19,323
Grand Total ...	64,633	8,129,512	3,39,32,917

* Exclusive of Perim, which is 5 square miles.

NORTH GUJARA'T.

CUTCH.

Area, 6,500 square miles; Population (1891), 558,415; Gross Revenue, Rs. 16,72,990.

General.

Cutch is a large peninsula in the north of the Presidency governed by a Jádejá Rájput prince styled the Ráv. The modern history of Cutch may be said to date from its conquest by the Sind tribe of Sama Rájputs, which took place or at least was completed during the fourteenth century. The Samas, it appears, fled to Cutch from the oppression of the Sumrás, who in their turn were being hunted down by the invading Musalmáns. The Chávda Rájputs, who then ruled over Cutch, granted the Samas a tract of land, but in time the latter subverted the rule of the Chávdás, and reigned in their stead (1320 A.D.). The section of the Samas who were the ruling family in Cutch were known as the Jádejás or children of Jáda. When the rest of the Sama tribe in lower Sind embraced the orthodox Muhammadan faith, the Jádejás adopted a religion which was a mixture of Hinduism and

TRIBUTARY STATES. *Cutch.*

Muhammadanism. This fact has professedly influenced their history. Isolated from the rest of their tribesmen and unable to obtain suitable husbands for their daughters, they have been led to practise wholesale female infanticide, and enjoyed an evil reputation for this habit up to quite recent years.

In the fifteenth century the Jádejás were subdued by the Muhammadan king of Ahmedábád, but their tribute was remitted by the Emperor Jahángir on condition of giving pilgrims a passage to Mecca. As a province of the Moghal empire Cutch remained free from attack, and the condition of the country was prosperous; but after 1718 the Viceroy of Gujarát being pressed for money sent expeditions into Cutch, which were defeated, and the fort of Bhuj was built to repel their attacks. Subsequently a rebellion ensued, and the Amir of Sind taking advantage of the disorders of the kingdom twice invaded the country with some success (1762—65). The disorder became intensified by the insanity of the king and the struggles of rival factions, until in 1809 the help of the British Government was sought to reduce the country to order. But it was not considered expedient to interfere with the internal affairs of Cutch, and the treaty then made was chiefly directed to the suppression of piracy and the prevention of raids into Káthiáwár. The treaty was little regarded; and all remonstrances failing, the British army moved into Cutch in 1815, and a new treaty was made by which the British undertook to restore order, and Cutch to pay compensation and cede the fort of Anjár and 23 other villages. Order was immediately enforced, and Government then remitted the tribute and all arrears due by Cutch, in return for which the Ráv continued faithful to his alliance. But his debaucheries and cruelty excited the discontent of the Jádejá Chiefs, who in 1818 applied for the help of the British Government, and, as the Ráv had made preparation for war, a force was moved against him, and Bhuj was captured. The Ráv was deposed, and the Jádejas nominated a minor his successor, with the British Resident and a few Chiefs as a Regency. The Government agreed to maintain order, but not to introduce any civil or criminal jurisdiction, and guaranteed the Jádeja Chiefs their possessions. In 1822 the district of Anjár formerly ceded was restored to Cutch for a yearly payment of money, and after ten years, as it appeared that the payment was felt as a burden, it was remitted. The Regency was dissolved in 1834 on the young Ráv coming of age, who on his death in 1860 was succeeded by his son Ráv Prágmalji, an enlightened ruler, whose efforts at good government were recognized by the title of Knight Grand Commander of the Star of India conferred by the Supreme Government. Ráv Prágmalji died in 1875, and was succeeded by his son, a boy of ten years of age. The latter, after undergoing a thorough education, was placed on the 'gádi' in November 1884, and has continued to conduct the administration ever since. During his minority the government of the State was carried on by a Council of four members under the presidency of the Political Agent.

Bháyád.

A notable fact in connexion with the administration of the Cutch State is the number and position of the Bháyád. The latter are Rájput nobles, descendants of scions of the ruling house who originally, according to the ancient Rájput practice, were granted a share in the territories of the ruling Chief as provision for their maintenance. The only obligation attached to these grants seems to have been an obligation to render military service; and within the area granted the Thákor or petty Chief was practically an independent ruler. The number of these petty princes in Cutch is 139, and the lands held in jágir by them form nearly one-half the area of the province. When the British first came to Cutch in 1819, they gave a guarantee to the Bháyád that they should be continued in the enjoyment of their possessions, and at the same time recognized as belonging to them several rights, such as that of electing the Ráv, to which it is certain that they were not entitled. These concessions gave rise to great complication subsequently, and the question was only settled after sixty years' discussion in 1878. Under present arrangements the Bháyád are guaranteed in the enjoyment of their estates so long as they administer them well and are faithful in their allegiance to the Ráv. Some few of them, styled below "class-holders," are invested with powers of trying civil and criminal suits. The residual jurisdiction is vested in the Jádejá Court, which is composed of the deputy minister or naib dewán and four Jádeja nobles, members of the Bháyád and chosen by His Highness the Ráv. In the case of boundary disputes and other questions affecting the land or revenue of a guarantee holder, there is an appeal to the Ráv, and from him to Government. On the failure of direct heirs collaterals are allowed to succeed, and the darbár has right of levying a nazrána or duty before the heir can be confirmed in the possession of the gádi.

Principal events of the year.

The relations of the Cutch Darbár with the frontier States of Pálanpur and the British districts of Thar and Párkar and Sind were satisfactory. With a view to a settlement of the long standing disputes between Cutch and Morvi the Government of Bombay in accordance with a decision of the Secretary of State for India established British management over the areas affected with a view to a complete separation of their respective territorial interests. His Excellency Lord Harris visited Cutch in April 1892. The Commander-in-Chief, Sir George Greaves, also visited Bhuj in the course of the year.

Season and Crops.

The rainfall was plentiful and the outturn of the crops very much above the average. Jowári, gram and cotton were especially good. Great damage, however, was done both to life and property by a cyclone which passed over Cutch on 1st May 1892. Cholera was very prevalent during the year, no less than 2,684 persons being attacked by it, of whom 1,262 died.

TRIBUTARY STATES. *Cutch.*

Police.

The police force consisted of 254 mounted and 572 foot; the cost was Rs. 1,38,393 against Rs. 1,38,505 in the previous year. The offences reported numbered 798 against 1,058 in 1891-92. Out of 694 cases sent for trial, convictions were obtained in 587 or 84·6 per cent. The number of persons arrested and convicted numbered 1,583 and 1,094 respectively, against 2,152 and 1,595 in the previous year. The percentage of convictions to arrests was 72·3 against 74·4 last year. Robberies increased by 6, being 19 against 13 in the previous year. The value of property stolen was Rs. 46,898 against Rs. 42,766 last year. The percentage of recoveries to losses was 64·5 against 79·6 in the previous year, the amount recovered being Rs. 30,288 against Rs. 34,026. Cases of suicide numbered 42 against 39; 26 of the victims were females and 16 males.

Criminal Justice.

There were in all 48 Criminal Courts in the State. Of these 17 were Darbár Courts, 6 Courts of Zamindárs holding honorary jurisdiction, and 15 Courts of class-holders under the settlement of 1875, while the balance of 10 consisted of the Jádeja Court and 9 District Courts subordinate to it.

The 17 Darbár Courts disposed of 1,470 cases affecting 2,182 persons, of whom 1,011 or 46·3 per cent were convicted. The 6 Zamindárs' and 15 class-holders' Courts disposed of 288 cases, while the Jádeja Courts decided 505. The total number of cases for disposal was 2,263 involving 4,626 persons, of whom 1,647 or 43·6 per cent. were convicted. There were 142 appeals as against 86 in 1891-92; sentences were reversed in 9 cases.

Extradition and Interstatal cases.

In 8 cases the Cutch State surrendered persons residing in the province for trial by other States, while the surrender of 5 persons was obtained for trial by the State. Fifty interstatal cases between Cutch and Morvi villages in Adhoi were disposed of during the year, leaving a balance of 140 against 165 in 1891-92.

Prisons.

There were 12 prisons in the Khálsa territory, besides 15 in the estates of Jághirdárs. The number of persons confined was 1,619 against 2,242 last year. The total cost amounted to Rs. 17,142 against Rs. 21,273 last year. The average cost per head of convicts in the Bhuj Central Jail was Rs. 29. In addition to the abovementioned prisons there were 12 lock-ups.

Justice.

The Civil Courts in all numbered 54. Of these 17 were Darbár Courts, 6 Small Cause Courts, 15 Courts of class-holders under the settlement of 1875, 6 Courts of Zamindárs holding honorary jurisdiction, while the remaining 10 consisted of the Jádeja Court and 9 District Courts subordinate to it. The number of suits filed in all the Courts in the course of the year was 5,118, which with 170 suits remaining over from last year made a total of 5,288. Of these, 5,108 were disposed of, leaving a balance of 180 for disposal at the end of the year. The number of appeals for disposal was 1,023 against 1,077 in 1891-92, and the number decided was 742 against 708. The arrears of appeal cases numbered 281 against 369 last year. The average value of each of the suits filed in the ordinary Darbár Courts was Rs. 147; in the Jádeja Court and Courts subordinate to it Rs. 162; in the Small Cause Courts Rs. 19; and in the Courts of the class-holders having jurisdiction under the settlement of 1875 and the Courts of the Zamindárs Rs. 39 and Rs. 75 respectively.

Registration.

The number of documents registered was 1,645 against 1,921, and the amount of fees realized Rs. 6,107 against Rs. 8,573 in the preceding year. Over fifty-six per cent of the documents registered were mortgage-deeds.

Municipalities.

There were six municipalities, the principal being those at Bhuj, Mándvi and Anjár. Their aggregate income amounted to Rs. 30,426 and expenditure to Rs. 27,702.

Trade and Customs.

The value of imports into the State was Rs. 65,75,190 against Rs. 73,27,197 in the previous year, and of exports Rs. 9,26,172 against Rs. 17,70,780. The reduction in imports (Rs. 7,52,007) was due to decrease in the importation of ghi, gol, cotton yarns, cotton clothes and wood. The decrease in exports (Rs. 8,44,608) was attributed to a smaller exportation of cotton in Samvat 1948, in which year there was a scanty rainfall in the province. The decrease in imports and exports had the effect of reducing the customs revenue from Rs. 7,68,345 to Rs. 7,12,376. It was found impossible to work either of the ginning factories in the State at a profit. The number of cotton presses working was 6. There were 3,381 bales prassed against 5,369 last year. The number of vessels which entered the ports was 4,328 against 4,073; while 4,353 left against 4,696 in the preceding year. The sale of alum brought the State a profit of Rs. 4,286 against Rs. 3,035 in the previous year. Stone and clay were exported to a very limited extent.

Public Works.

The outlay on public works during the year under report amounted to Rs. 1,45,751 against Rs. 2,58,679 in the previous year. Of this sum Rs. 1,317 were expended on improvement of harbours; Rs. 16,965 on repairs to old roads; Rs. 16,617 on the construction of new roads; Rs. 35,925 on buildings, old and new; Rs. 15,479 on tanks, wells and irrigation; and Rs. 30,259 on miscellaneous petty works. The proportionate cost of establishment to public works expenditure was 25 per cent. agianst 16·4 per cent. in the previous year.

Revenue and Finance.

The Samvat 1948 opened with a balance of Rs. 5,29,127 and closed with one of Rs. 4,53,209. The revenue for the year was Rs. 16,72,990 (inclusive of Rs. 2,015 on account of income of previous years) against Rs. 21,42,157 in the previous year. The decrease was due to unfavourable rainfall in 1891 and to the fact that the previous year was an intercalary year. The land revenue fell short of the preceding year's total by Rs. 14,065. The expenditure was Rs. 15,89,819 against Rs. 20,95,077. The decrease was entirely due to the previous financial year being one of 13 months. The ordinary expenditure decreased by

TRIBUTARY STATES. *Cutch and Pálanpur.*

Rs. 50,129 and the extraordinary expenditure fell short of that of the preceding year by Rs. 78,201.

Agricultural improvements.

The area of waste land brought under tillage was 570 acres against 850 acres in the preceding year. Seventy-four old wells were repaired and 61 new wells were sunk during the year under report. The State advanced a sum of koris 18,227 as takávi to indigent cultivators.

Survey.

The State survey establishment surveyed 31,566 acres by cross staff and 51¼ square miles by theodolite. The cost of survey operations amounted to Rs. 6,848 against Rs. 7,740 last year.

Vital Statistics and Medical Relief.

The record of births and deaths for the Khálsa (as opposed to that of the Zamindár's) territory was respectively 5,608 and 7,302 against 7,071 and 4,937 in 1891-92. The increase in mortality was due to the prevalence of cholera and fever. No record was kept on the Zamindárs' estates. At the 9 hospitals and dispensaries there were 81,903 patients treated at a total cost of Rs. 33,931, against 78,827 patients treated at a cost of Rs. 34,807 in the preceding year. The Lunatic Asylum at Bhuj contained 18 inmates against 14 in the preceding year and the Foundling Hospital took charge of 27 orphans against 24. The number of vaccinations during the year was 18,487 against 21,003. English lymph was obtained from the Sanitary Commissioner, Bombay, and used to advantage. The cost of the Vaccination Department was Rs. 7,236 against Rs. 7,239 in the previous year.

Education.

The number of pupils in the 125 schools belonging to the State was 7,082 against 7,557 in the previous year. The indigenous private schools increased from 116 to 118. The expenditure on education amounted to Rs. 69,407 against Rs. 73,410 last year. There were 7 libraries in the State with 6,790 books. A printing press owned by the State was worked at a profit. The State gave Rs. 4,248 in bounties to different Gujaráti authors, and special donations amounting to Rs. 8,706 to various institutions.

Miscellaneous.

The number of pupils at the School of Art, Bhuj, fell from 100 to 91. The results achieved by the pupils at the School of Art examinations in Bombay were satisfactory. Three stallions were maintained in the State by the Government of Bombay. They covered the same number of mares as in the preceding year, viz. 124. Eight wards' estates were under Darbár management against 6 in 1891-92. Inquiries were held in 79 cases respecting breaches of the Infanticide rules. The number of marriages of Jádeja girls was 111 against 132 in 1891-92.

PA'LANPUR.

Area, 8,000 square miles; Population (1891), 645,526; Gross Revenue, about Rs. 16,58,221.

States in the Superintendency.

The Political Superintendency of Pálanpur is a collection of eleven States situated in the extreme north of the Presidency and bounded on the west by the Runn of Cutch. It is for the most part a sandy treeless plain, except in the north and east, where the hills are covered with dense jungle. Of the eleven States, two, Pálanpur and Rádhanpur, are of the first class.

1. Pálanpur.	5. Vaváhi.	9. Kánkrej.
2. Rádhanpur.	6. Sántalpur and Chádchat.	10. Diodar.
3. Tharád and Morváda.	7. Suigám.	11. Tarváda.
4. Váv.	8. Bhábhar.	

The present Chief, or Diván as he is called, of Pálanpur is the descendant of an Afghán family who conquered Songad Jhálor from the Chitor Rájputs in the fourteenth century. His ancestors, known in history as the Jháloris, conquered Pálanpur and Deesa about 1600 A.D. In 1697 when the Government of Jhálor was taken away from them, they made Pálanpur their head-quarters. The connexion of the British Government with the State dates from 1809, in which year the Chief having been murdered by a band of factious nobles, the British interfered on behalf of his infant son. The latter was placed on the throne with his uncle as guardian and regent for him. There were, however, constant dissensions between uncle and nephew, and in 1817 the former broke out into open hostility. A force was sent against him, which assaulted and carried the town of Pálanpur. The young Chief was replaced on the throne, but owing to his youth was unequal to the task of administration. A Political Superintendent was consequently appointed, whose sanction was necessary to all important expenditure, and a local force of 250 men was raised. This arrangement lasted until 1874, when, in consideration of the better management of the State, the control of the Political Agent over the expenditure was relaxed. The State has made great progress under the present Diván. A revenue survey has been introduced, and the police have been reorganized, and great encouragement has been given to education. Various works of public utility, such as a railway, a jail, and a hospital have been built or are in course of construction. In 1891 Government released the Diván from the obligation of maintaining the Pálanpur levy, which body was handed over to the State authorities for absorption into the police. The Diván has during the year under report been appointed a Knight Commander of the Indian Empire.

Rádhanpur lies rather to the north-west of Pálanpur, and is about one-third of its size. The ruling family, like that of Pálanpur, are Mussalmáns, and, as the Bábis, played an important part in the history of Gujarát from the time of Humaiyun onwards. The connexion of the British with the State dates from the year 1819, when their assistance was invoked by the Naváb against the Khosas and other Sindi marauders, who were raiding his territories. A body of troops was sent and the Khosas expelled. In return for this the Naváb agreed

pay a yearly tribute of Rs. 17,000. This sum was paid for three years and then remitted, and the Naváb now pays no tribute of any kind, unlike the Pálanpur and Kánkrej States, which both pay tribute to Baroda. TRIBUTARY STATES *Pálanpur.*

Both the Chiefs of Pálanpur and Rádhanpur exercise full civil and criminal powers within the limits of their territories. The Thákors of Tharád and Váv have first and second class magisterial powers respectively. Some of the other petty States have third class powers. The residual jurisdiction in these States is vested in the Political Superintendent and his assistants, and six Thándárs stationed at Tharád, Váv, Diodar, Sántalpur, Várâhi and Kánkrej. A body of police called the Pálanpur Imperial Police, and consisting of 131 mounted and 179 foot constables, is maintained in the Superintendency out of funds formerly devoted to the support of a body of horse called the Gáckwár's Contingent, which was abolished in 1885.

During the year under report the rainfall was excessive everywhere. Monsoon crops generally suffered somewhat in consequence, but the rabi crops were good on the whole. Prices of food-grains ruled the same as last year. The year was unusually unhealthy owing to the prevalence of fever in almost all parts of the Superintendency. The rate of mortality was very high everywhere, though not so high in Pálanpur as elsewhere. Season and Crops.

The long-standing disputes between Pálanpur and Dánta with regard to certain co-shared villages were approaching settlement. Forced labour was abolished. The Pálanpur-Deesa Railway was taken in hand in December. Important events. *Pálanpur State:* General.

The revenue of the Pálanpur State during the Samvat year 1948-49 amounted to Rs. 6,11,542. The expenditure was Rs. 6,06,296, leaving a surplus of Rs. 5,246. Revenue and Expenditure.

The measurement of 13 villages was completed during the year and that of 21 others was in progress. The total of numbers measured came to 1,848 with an area of 22,467 acres and 39 gunthas. The cost of the survey was Rs. 4,414 as against Rs. 4,289 the previous year. The survey of Andharia was completed. One hundred and seventeen packa and 231 katcha wells were sunk during the year. Revenue Survey and Assessment.

Uniform and arms were provided for part of the Darbár police during the year. Other matters.

All import dues on grain, fruit and oil, &c., were abolished. The reservoir and canal for the supply of water to the town was completed. The Naváb's daughter was married to the son of his brother Fatejhang Khan. *Rádhanpur State.* General.

The revenue of the Rádhanpur State during the Samvat year 1948 amounted to Rs. 7,55,012, while the expenditure was Rs. 6,18,123, showing a surplus of Rs. 1,36,889. Revenue and Expenditure.

The revenue survey was completed in 40 villages by the end of the year and the area thus covered was 110,150 acres or 12,073 numbers. The revenue assessment was settled in 78 villages. The cost of the survey amounted to Rs. 2,093 against Rs. 3,564 the previous year. Some 2,000 acres of waste land were brought under cultivation. Four packa wells were sunk during the year. Revenue Survey.

In this connexion there is nothing important to record. *Other States and Tálukas.*

The total number of attachments at the close of last year was 17. Three more were imposed during the year, making the total 20. *The Superintendency generally:* Attachments.

The Pálanpur police force was thoroughly reorganized during the year. The result was to diminish the number of mounted police by 29 and to increase that of the foot police by 36. The total number of offences reported to the police as having occurred within the Superintendency jurisdiction was 674, as against 775 the previous year. The number of persons arrested was 869, as against 1,031 the previous year. Of these 727 were sent for trial, of whom 452 were convicted and 275 were acquitted or discharged. The percentages of convictions of persons arrested and sent for trial by the police were 52 and 62 as against 50 and 55 the previous year. The value of property stolen amounted to Rs. 21,987 against Rs. 18,374 the previous year. The amount recovered was Rs. 8,434 against Rs. 11,042, giving a percentage of 38 against 60 last year. In the jurisdictional States (Pálanpur, Rádhanpur, Tharád and Váv) the number of offences reported to the police was 1,127 against 1,338 the previous year and the number of persons arrested was 1,843 against 2125. Of these 1,489 were sent for trial, of whom 906 were convicted and 576 were acquitted or discharged. The percentages of convictions of accused arrested and sent for trial were 49 and 60, against 48 and 63 respectively the previous year. Police.

The number of trials held in the Superintendency Courts proper during the year under report was 594 against 794 the previous year. The number of persons involved was 1,100 against 1,510, or a decrease of 410. Of these 655 were convicted and 445 acquitted or discharged against 852 and 658 respectively the previous year. At the close of the year there were 13 cases undisposed of. The number of trials held in the Courts of the States possessing jurisdictional powers was 1,505 against 1,954 the previous year. The number of persons tried was 3,020 against 3,857. Of these 1,490 were convicted and 1,530 acquitted or discharged. Criminal Justice.

There were five jails in the Superintendency. Sixteen hundred and twenty-seven persons were admitted during the year under report, against 2,069 the previous year. Prisons.

In the Superintendency Courts the balance of original suits at the end of the previous year was 195 and the number of suits filed during the year under report was 781, making a Civil Justice.

TRIBUTARY STATES. *Pálanpur and Mahi Kántha.*

total of 976, of which 572 were disposed of, leaving 404 in arrears at the close of the year. The number of political cases decided was 15, all of which related to land suits. The number of civil appeals decided by the Courts of the Political Superintendent and the Assistant Political Superintendent was 51, of which 13 were land suits, 36 money suits and 2 miscellaneous. In the Courts of the States exercising jurisdictional powers the total number of original civil cases disposed of was 4,419, valued at Rs. 2,81,993, against 4,371, of the value of Rs. 2,12,565 in the previous year. The number of civil appeals was 91, of which 44 were disposed of by the Pálanpur Appellate Court, 44 by the Rádhanpur Appellate Court, and 3 by the Court of the Thákor of Tharád. The Pálanpur Court further disposed of 188 political cases, of which 47 were land suits, 45 compensation suits, and 96 miscellaneous suits.

Public Works.

The Pálanpur Darbár spent Rs. 71,815 on public works during the year. The Pálanpur jail and girls' school and the Goodfellow Hospital were completed. The Rádhanpur Darbár spent Rs. 1,03,061 chiefly on a canal for supplying water and a new jail.

Medical Relief.

The number of persons vaccinated during the year under report was 18,132, against 21,473 the previous year, or a decrease of 3,341. The cost was Rs. 4,110, against Rs. 4,074 the previous year. Fifteen persons were attacked with small-pox, of whom 8 died. The total number of patients treated during the year at the seven hospitals and dispensaries was 34,229 against 27,826 the previous year. A dispensary at Vár was opened during the year.

Education.

During the year four new schools were opened. The total number of schools stood at 54. The number of pupils attending was 3,337 against 3,348 the previous year. The daily average attendance was 2,275·9 against 2,447·37. The receipts amounted to Rs. 2,031 against Rs. 1,838, and the total expenditure amounted to Rs. 30,599 against Rs. 29,476 the previous year. The number of indigenous schools was 37 against 47 and the number of boys attending was 906 against 1,134.

Miscellaneous.

Five thousand six hundred and seventy-one head of cattle were attacked with cattle-disease; nearly 67 per cent of this number died. Thirty-five chests of opium were issued for retail sale by licensed vendors against thirty-eight chests the previous year. Imports rose to 60½ chests from 55½ chests. The two Government stallions covered 64 mares against 73 the previous year.

MAHI KA'NTHA.

Area, 3,528 square miles; Population (1891), 581,568; Gross Revenue, Rs. 12,53,824.

General.

The Mahi Kántha Political Agency consists of a group of 59 States of various sizes lying on the borders of Rájputána. The only first-class State in the Agency is the I'dar State. Of the others, 25 exercise limited jurisdiction and the remainder are controlled by the officers in charge of five Thándarates. The I'dar State contains more than half of the total population, and, while paying tribute to Baroda, itself receives tribute from some of the smaller States. The remainder pay tribute either to the Gáekwár or to the British Government.

History.

The earliest settlers were the tribes now known as Bhils and Kolis who were subdued by Rájputs driven from Sind on the establishment of the Muhammadan power there. In the fifteenth century the Rájputs in their turn fell under the dominion of the Ahmedábád kings and on their decline became nominally subjects of the Moghal Empire. The latter however never had any real authority over the Chiefs and only rarely collected tribute. The Maráthas, however, who succeeded the Moghals thoroughly conquered the province and levied tribute regularly from all except the poorest Chiefs. At the beginning of the present century, however, the power of the Maráthas began to decline and the Gáekwár was no longer able to control his Mahi Kántha tributaries. In 1811 therefore an arrangement was made similar to that already made in Káthiáwár four years before by which the British Government collected the tribute and paid it over to the Gáekwár, thus saving the latter the expense of maintaining a large force for "mulkgiri" purposes. This arrangement lasted until 1818 when the Peshwa's share of Gujarát fell to the British. Their new possessions brought the British Government into immediate contact with the surrounding unsettled "Mewasi" tribes of the Mahi Kántha and the interlacing of territories and the confusion of authority ended in such general lawlessness that it was evident that some one power must be responsible for the maintenance of order. As the Gáekwár's Government was unable to undertake the task, the management of the Mahi Kántha was, by an agreement concluded on the 3rd April 1820, made over to the British Government who undertook to collect and pay the tribute free of all expense. A Political Agent was appointed in 1821, but in 1828 the appointment was abolished and the province attached to the Baroda Residency. In 1833, however, there were serious local disturbances, which were only suppressed by Military Force, and it was found necessary to re-establish the Political Agency. In 1858 and 1867 there were further troubles, but they did not last long. Since 1868 the public peace has remained unbroken.

The I'dar State, which is the only one of any importance in the Agency, is governed by its Chief who was placed on the gádi in 1882. Previously to that owing to his minority the State was under British management for 13 years. The Chief exercises full power and no appeals lie from his orders to the Political Agent. It is the only State which main-

TRIBUTARY STATES.
Mahi Kántha.

tains a police force. During the last ten years a survey settlement has been introduced into part of the State and a system of collecting the revenue direct in cash from the cultivator started. Transit dues and taxes on timber cut have been abolished and import and export duties reduced. Facilities for education have been largely increased and great efforts made to increase the prosperity of the State by inducing cultivators of the better class to settle in it.

Important events.

No event of any importance occurred during the year. Mr. Fforde of the Revenue Survey finished his enquiry into the various disputes between Pálanpur and Dánta during the year. Mr. C. E. G. Crawford was deputed on special duty to decide certain disputes between the States of I'dar and the Gadhváda Tálukdárs, and decided five cases as test cases. Both parties submitted their appeals against his decision in the above five cases. Efforts were being made to submit all differences between Pálanpur and the Gadhias to arbitration. A Surveyor was deputed to carry out the joint decision of Colonel Hunter and Colonel Loch, and make a theodolite survey of the line of existing pillars on the Dánta-Sirohi boundary. The Meywár State appealed to the Government of India against the joint decision of Colonel Hunter and Major Bignell in the Kundol-Mahuda case in dispute between Pál (I'dar) and the Bhils of Pátia-Valicha. The only point still awaiting settlement was the right to the Mahuda timber. The final orders of the Government of India on the question were awaited. No Border Court was held during the year, and none of the boundary disputes between Mahi Kántha and Baroda were settled during the year. Ráo Prithisingji of Pol was placed in charge of his estate on the 26th January 1893. The young Chief Surajmalji of Varsoda was entrusted with the administration of his táluka on the 4th April 1892. The attachments were removed from the States of Pethápur and Vásna and the administration entrusted to their respective Chiefs on the 21st November and 9th July 1892 respectively. There were 18 estates under Agency management at the close of the year. Of these, Dábha was placed under attachment during the past year. Orders of Government were received on the proposals submitted by Colonel Hunter for the reorganization and increase of the revenues of the Gadhváda, Sábarkántha and Vátrak-kántha Thánas, and were carried out.

I'dar.

Ráo Bahádur Savailál Govindrám, the Diván, reverted to British service in Káthiáwár in the latter part of February 1893. His Highness the Maháraja selected Diván Bahádur Lálji Purshotamrái, the Native Assistant at Baroda, as his Diván in succession of Ráo Bahádur Savailál, and he assumed charge of his new appointment in March 1893. The total revenue and expenditure of I'dar were Rs. 6,64,904 and Rs. 6,74,347 as against Rs. 6,07,985 and Rs. 5,60,560 in the previous year. No complaints were received from the Sardár Patávats or Bhumia Sardárs against the State during the year.

Pol.

The young Chief Prithisingji having attained his majority, was installed on the gádi on the 26th January 1893 by the Political Agent. The revenue of the Pol State during the year was Rs. 12,637 as against Rs. 17,838 in the preceding year, whereas the expenditure amounted to Rs. 18,168 as against Rs. 21,180 in the year before. The decrease in the revenue was due to the fact that "vero" is only levied every alternate year and was not recovered in the year under report. A sum of Rs. 8,450 was spent during the year on public works.

Dánta.

The dispensary building referred to in the previous year's report was completed during the year at a cost of Rs. 2,000, of which Rs. 1,000 were spent during the year under report. A sum of Rs. 1,900 was spent on public works. The total revenue and expenditure of the Dánta State were Rs. 46,001 and Rs. 50,001 as against Rs. 46,001 and Rs. 47,001 in 1891-92.

Málpur.

The Málpur State had a revenue of Rs. 20,620 and an expenditure of Rs. 19,957.

Katosan.

The Chief of Katosan showed a disposition to oppose Agency orders and exceed the limits of his jurisdiction. The officer deputed to enquire into the numerous complaints against the Thákor had not submitted his report by the end of the year. The revenue and expenditure were both Rs. 21,263.

Ilol.

The revenue of Ilol State was Rs. 23,922 and the expenditure Rs. 23,387.

Mánsa.

The Mánsa State continued under Agency management during the year. A new system of accounts was introduced in the táluka, and reported to be working well. The young Chief continued his studies in the Rájkumár College, and was well reported on. The opening balance in the beginning of Samvat 1948 was Rs. 11,514. The revenue of the year amounted to Rs. 56,627, making a total of Rs. 68,141, whereas the total expenditure amounted to Rs. 54,793, leaving a closing balance of Rs. 13,348. A sum of Rs. 2,280 was spent on public works. The State is now free from debt.

Mohanpur.

The Mohanpur State was also under Agency management. The revenue during the year amounted to Rs. 30,389, whereas the expenditure was Rs. 22,703. The closing balance was Rs. 7,686. The young Chief continued his education at the Rájkumár College at Rájkot.

Bávisi Zilla.

The Bávisi Zilla continued under the charge of the Assistant Political Agent. Ninety-three criminal cases were reported as against 116 in 1891-92. There was no serious crime. The value of property stolen fell from Rs. 1,236 to Rs. 229, of this amount 52 per cent. was recovered as against 38 per cent. last year. The number of civil suits rose from 218 to 252. The rainfall for the year was excessive and the outturn of the crops bad.

Season and Crops.

The rainfall during the year was much above the average, being in some places double the fall of last year. It caused great injury to the crops and house property in the greater

TRIBUTARY STATES. *Mahi Kántha.*

part of the district. The outturn of the crops was not good though the rabi was better than the kharif.

The Agency Police.

There were two police forces in the Agency—the Agency police and the State police. The strength of the latter was 165 Savárs and 1,031 Foot Police, and it was maintained at a cost of Rs. 96,840. The Agency Police consisted of 141 Savárs and 257 Foot Police and cost Rs. 82,684 as against Rs. 83,036 in 1891-92. The total number of offences reported to the police was 1,142 as against 1,172 in 1891-92; the number of persons arrested fell from 1,523 to 1,396, and of persons sent for trial from 1,453 to 1,358. Convictions increased from 864 to 886 and the percentage of convictions to arrests rose from 56·7 to 63·4. There was a decrease of crime generally except in 7 States. Crime of a violent nature also decreased, as there were 6 murders, 3 robberies and 27 dacoities fewer than in 1891-92. The amount of property stolen in robberies and dacoities fell from Rs. 14,389 to Rs. 4,755.

Criminal Justice.

The number of offences dealt with during the year was 1,536 against 1,780 in the year 1891-92; the persons concerned therein were 2,877 against 3,413 in the preceding year. Of these, 1,239 or 43 per cent. were convicted and sentenced against 1,454 or 42 per cent. last year. In addition, the Sessions Court of the Political Agent tried 11 cases with 41 accused, of whom 23 were convicted and sentenced and 18 were acquitted. There remained 1 prisoner under trial at the end of the year. Four convicts appealed to Government against the sentence of capital punishment on them passed by the Political Agent. The sentence was converted to transportation for life. Two convicts who were sentenced to transportation for life also made appeals to Government, but the conviction and sentence were confirmed. Two appeals were made to the Commissioner, Northern Division, by one person sentenced to three years' rigorous imprisonment and also by 11 persons sentenced to six months' rigorous imprisonment. In the former case the conviction and sentence were reversed and the accused were acquitted and discharged, whereas in the latter case the conviction and sentence were confirmed. Eighteen cases were tried in the Sessions Court of the I'dar State in which 32 persons were concerned. Of these, 24 were convicted and sentenced and 8 acquitted and discharged. The Dánta Sessions Court tried no Sessions case during the year. The Political Agent's Criminal Appellate Court disposed of 23 appeals as against 14 in the year before. There was no criminal appeal pending at the close of the year. Forty persons were concerned in these appeals. In 4 appeals with 10 persons the decisions of the lower Courts were confirmed. In 8 appeals with 14 persons convictions were quashed and in 11 with 16 persons the sentences were modified. In the I'dar Criminal Appellate Court 18 appeals were received, out of which 3 appeals with 3 persons were not entertained. In 12 appeals with 12 persons the decisions of the lower Court were confirmed. In 1 appeal with 1 person the conviction and sentence were reversed. In 2 appeals with 2 persons the sentences were modified.

Prisons.

There were 26 jails in the Agency during the year, a decrease of 4 on the number in the previous year. The total number of admissions was 995, an increase of 47, and the daily average 186, an increase of 5·95. The cost of maintenance was Rs. 13,215, a decrease of Rs. 688. A new jail at Pol was completed during the year.

Civil Justice.

The number of Civil Courts in the Agency was 38 as against 45 last year. There were in all 284 cases in arrears from last year. 2,386 were filed during the year, making a total of 2,670, of which 2,309 were disposed of, leaving a balance of 361 cases at the close of the year. The total value of fees realized on the suits filed during the year in all the Courts was Rs. 14,672 as against Rs. 13,245 in the preceding year. The value of claims filed was Rs. 1,51,479 against Rs. 1,43,164. The value of settled cases was Rs. 1,33,988 against Rs. 1,63,980. There were 4 Appellate Courts in the Agency, the Personal and Native Assistants having been granted appellate powers by Government during the year. Including a balance of 89 from the previous year there were in all 232 appeals for disposal. Of these 183 were disposed of, leaving a balance of 49 at the end of the year. There were 12 special appeals to Government against the decisions of the Political Agent during the year. The decisions of the Political Agent in 4 appeals were confirmed; in 1 appeal the decision was modified, and in 3 appeals the decisions were reversed and cases remanded. At the end of the year orders on 4 appeals were awaited. The total number of applications for execution of decrees was 3,391, of which 2,286 were disposed of and 1,105 remained over as against 1,323 last year.

Registration.

One hundred and seventy-one documents of the aggregate value of Rs. 52,930 were registered during the year against 34 of the total value of Rs. 17,865 last year. The registration fees levied on these documents amounted to Rs. 664 as against Rs. 157 last year. There does not appear to be any apparent reason for this large increase in the number of deeds registered.

Public Health.

The general health of the province was not good. A fever of very bad type prevailed throughout the district during the year and a large number of people fell victims to the disease. Cholera also appeared in some parts of the district. The number of cholera cases during the year was 973, of which 600 cases proved fatal.

Public Works.

The expenditure in I'dar State on public works was Rs. 9,442, in Dánta Rs. 2,800 and in the attached State of Pol Rs. 8,450. A sum of Rs. 1,602 was spent in the Bávisi Zilla.

TRIBUTARY STATES. *Mahi Kántha and Káthiáwár.*

There was an improvement in the dyeing trade of Pethápur and Vásna. The value of dyed clothes exported from Pethápur during the year was Rs. 1,02,900 against Rs. 61,950 last year, whereas that of those exported from Vásna was Rs. 2,03,000 against Rs. 1,67,650.

Revenue and Finance.

During the year under report there was an increase of Rs. 56,205 in the total revenue and an increase of Rs. 89,202 in the total expenditure, the figures being Rs. 12,53,824 and Rs. 12,75,247 as against Rs. 11,97,619 and Rs. 11,86,045 in 1891-92. The receipts on account of Local Funds amounted to Rs. 68,186 and the expenditure to Rs. 61,104 as against Rs. 71,687 and Rs. 51,076 last year. The balance at the close of the year was Rs. 1,25,521. The total amount of tribute for collection in 1892-93 was Rs. 1,49,854, of which Rs. 1,34,813 were recovered, and Rs. 15,041 remained for collection.

Vital Statistics and Medical Relief.

The number of dispensaries was the same as last year, *viz.* 13. The number of patients treated was 48,986 as against 46,774 in 1891-92. The number of births was 12,294 and of deaths 15,435 as against 13,641 and 12,464 in the preceding year. The number of vaccinations was 13,789 against 15,081 last year.

Education.

There were in all 99 schools in Mahi Kántha Agency against 100 in the preceding year. The number of scholars on the registers was 6,113 and their average attendance was 4,594 against 6,476 and 4,628 respectively last year. The reduction in the number of scholars was reported to be due to the prevalence of fever during the year. There were 9 girls' schools with 363 pupils on the rolls. The total cost of education in Mahi Kántha during the year was Rs. 26,400 against Rs. 22,520 in the preceding year. There were 5 Bhil schools with 131 Bhil pupils under the charge of the Rev. Mr. Thompson. A sixth was opened during the year. There were 30 Kunvars on the rolls of the Scott College at the close of 1891-92, and 4 were admitted during the year.

Miscellaneous.

The quantity of opium issued to Native Chiefs was 8,597 lbs., a decrease of 1,335 lbs. compared with the total for 1891-92. The decrease was due to the fact that in the previous two years there had been an increase in the demand for opium owing to marriages among the Kadva Kunbis and other festive and funeral ceremonies. The usual fair at Sámlaji was held during the year and passed off without incident, the trade done being slightly larger than in the previous year.

KA'THIA'WA'R.

Area, 20,496 square miles; Population (1891), 2,752,401; Gross Revenue, 1,49,97,969 (approximately).

The province of Káthiáwár, the ancient Suráshtra, lies off the north-west corner of the Bombay Presidency. It comprises 188 States of varying size and importance, the principal being the first class States of Junágadh, Navánagar, Bhávnagar, Porbandar, Dhrángadhra, Morvi and Gondal. Many of the other States are offshoots of these, and have been founded by younger brothers of Chiefs who have received grants of land or garás for their maintenance from the parent State. Okhámandal on the west of the peninsula, and the central districts known as the Amreli Maháls, belong to the Gáikwár of Baroda.

Historical sketch.

The connection of the British Government with Káthiáwár dates from the year 1807. At that time the power of the Marátha government, which, like the Moghals two centuries before, had subjugated the whole province and had forced the numerous petty Chiefs and rulers to pay tribute to them, was on the wane. As a natural consequence, the affairs of the province were in the greatest disorder. Dhrángadhra and Wadhwán were fighting on one side; Bhávnagar and Wala on the other. The Jám of Jámnagar and Nawáb of Navánagar were levying new imposts from Jetpur and Mendarda. At length some of the weaker Tálukdárs applied to the British Resident at Baroda for protection, offering in return to cede their territory to the Honourable Company. The British Government, who by reason of their financial transactions with the Gáekwár were interested in seeing that the various Chiefs paid their tribute, sent their forces and those of the Gáekwár into the province with the object of restoring order. This was effected by taking engagements from the Chiefs, who bound themselves (1) to pay voluntarily a fixed and settled tribute thenceforward for ever; (2) to keep the peace towards each other and maintain order within their own limits. In return they were secured from the visitations of the Marátha forces, which had hitherto gone round the province at irregular periods for the purpose of mulkgiri or collection of tribute. In A.D. 1817 the Peshwa ceded to the British Government his share of the Káthiáwár tribute, and in A.D. 1820 the Gáekwár agreed to have his share collected and paid by the British Government, and to send no troops into Káthiáwár nor make any demand on its Chiefs except through the British Government. The sole supreme power has since A.D. 1822 been vested in the Political Agent, subordinate to the Government of Bombay.

The tribute, it will be seen, is fixed under a permanent settlement. As to general administration, the authority exercised has been such as a paramount power exerts for the public good in a province not under British laws. The independence of the Chiefs within their own territory has been carefully maintained. But when it became apparent (A.D. 1831) that many of the petty Tálukdárs were incompetent to punish crime, a Chief Criminal Court was established with a British officer as president and native assessors, to try criminals whom the local authorities could not deal with themselves. Still something was wanting. The community did not settle down into peaceful and orderly life. Municipal institutions

TRIBUTARY STATES. Káthiáwár.

did not develop. The machinery of justice was not established. The country was full of outlaws and armed mercenaries. Among so many petty States there was no model of administration or recognized policy. The jurisdiction of the pettiest Zamindárs was undistinguishable by any precise grade or limitation from that of the greater Chiefs. The only restriction was as to the right of inflicting capital punishment, which was confined (A.D. 1857) to the Chiefs of the 1st and 2nd classes. There was no magisterial control over the numerous petty tálukás. None of the States had regular courts or codes. In civil disputes about land the Political Agent mediated diplomatically between Chief and Chief and even between Chief and subject landholder, but cases were very seldom decided. In A.D. 1860 Mr. Kinloch Forbes, Acting Political Agent, expressed his opinion that Káthiáwár was standing still or even retrograding, and that unless new life could be infused into the native administrations, the increase of British interference was inevitable.

In the next few years the desired reform was worked out by Colonel Keatinge by whom the whole polity of Káthiáwár was re-cast. The Chiefs of full jurisdiction (class I and II) were not affected, but the powers of the rest (class III—VII) were graded and defined. The very small tálukás were grouped under the charge of Thánádárs of whom there are now fifteen; and the general administration of the province was thrown into its present form.

Form of administration.

The province was divided into four political charges known as the Jháláwád, Gohelwad, Sorath and Hálár "Pránts." The officer in charge of the Pránt is Magistrate and Civil Judge in the petty tálukás and diplomatic Agent for the large States in his pránt. The Chief Criminal Court now tries all cases committed to it by the Magistrates, and Chiefs of restricted powers. The Judicial Assistant to the Political Agent presides in it, and also hears appeals from all the subordinate courts and exercises powers of superintendence and revision. At the same time the practice of interposing between Chief and subject was abandoned, and all subjects were referred for justice to their own Chiefs. Under the Political Agent, who is the head of the Administration, each Divisional Officer has a subordinate Native Deputy Assistant, who resides at the head-quarters of the division or pránt and has civil and criminal powers up to a fixed limit, and in each pránt there are a certain number of Thánádárs, each invested with lower civil and criminal powers over a knot of villages contiguous to his thána. It is a noteworthy fact that of 188 territorial States, large and small, into which Káthiáwár is now divided, 134 separate tálukás are administered under the thánás. Interspersed among the large principalities are clusters of small properties so sub-divided and attenuated that the owners are no longer fit to hold civil or criminal jurisdiction and are sometimes glad to surrender it. Many of these petty proprietors are described as miserably poor and ignorant and steeped in debt, they do not possess even the semblance of authority and have not the means to undertake any works of improvement. The Thánádár undertakes the civil and criminal business up to his powers, while the police arrangements are controlled by Chief Constables under the direct supervision of a European Superintendent, who in his turn has an Assistant and the necessary complement of Inspectors.

It is clear that the area thus directly administered is destined to increase, for wherever a "gadi" and therewith the strict right of primogeniture is not maintained, wherever the estate is sub-divided anew among each successive generation, the landholders must in time subside to the level of ordinary subjects. On the other hand, as the principalities which are impartible comprise upwards of 15,000 square miles out of 20,000, the Agency can never be called upon to administer more than ¼th part of the total area of the province. The procedure of the Agency Courts is regulated by the principal enactments of British India, specially applied by Government. The law administered by the Darbári Courts is the customary law of the province, that is, the Hindu and Muhammadan religious laws as modified by local or tribal usage. The procedure tends to become like that of the Agency Courts. The large States have procedure codes and penal codes based upon those used in British India. In cases falling with the proper jurisdiction of a Darbár, the Agency does not interfere as a court having jurisdiction, but only in a diplomatic or executive manner where there may be good reason for doing so. A special class of cases, *viz.*, complaints of Mulgarásias and Bháyáds against Chiefs, are to be heard under certain rules by the Rájasthánik Court, of which the President is a British officer. The law administered in the Agency Courts is comprised in two local codes based on the British Indian Codes, such Acts of Parliament or of the Government of India as are applicable, local rules issued by the Political Agent, treaties and engagements, and custom or usage of country, tribe or family. The criminal jurisdiction, original and residuary, is based on the same scheme as the civil, the Political or Special Assistant being invested with powers like those of a District Magistrate. The Penal Code in its spirit is the substantive criminal law, and, being explicit, it works well. It is a curious fact that for many years the only jurisdiction of the Agency was that of a Sessions Court for trial of great crimes, in which the Agent sat with the Chiefs or with their representatives as President. There was no development of magisterial jurisdiction in the Agency until Colonel Keatinge's time. In the Political Agent's Court of Criminal Justice for Káthiáwár, committals from the Agency officers or Darbári Magistrates are tried by the President associated with four Native Judges, of whom one is usually a garásia, and the others are Chiefs or their agents or judicial officers. Judgment and sentence go by a majority of votes.

The Rájasthánik Court was established in 1873. The special character of this tribunal is, that it has been constituted with the assent and at the cost of the Chiefs, for the decision of disputes as to garás, or hereditary landed estates between them and the class of Bháyád

TRIBUTARY STATES. *Káthiáwár.*

and Mulgarásias. These men, whether they be the Chief's collaterals, or the remnant of earlier holders, are the principal subjects, and have often been the victims of jealousy or aggression. The Chiefs in referring this class of cases from their own courts, where they are at once judge and party, to a common Court with an English President for all Káthiáwár, have made the first advance towards an independent judicature, obviously a matter of very great importance.

The Rájasthánik Court is a sequel of the definition and settlement of jurisdictions in Káthiáwár in 1863. After that date all suitors were referred for justice to their Chiefs, and this principle of non-interference was applied to the subordinate landholders as well as to other subjects. This was in some sense a change of policy; for although the garásias were never guaranteed diplomatic interposition in their behalf by any treaty or engagement, yet in practice the Political officers had constantly mediated in disputes between the garásias and their Chiefs; and this practice while it inspired the garásias with a belief that they enjoyed a political status above that of ordinary subjects, also prevented any final settlement of their claims; for a Chief was neither able openly to reject the advice of the Agency nor often willing to close a case by adopting it. Thus the two parties fell into an attitude of natural hostility, the Chief being tempted to extinguish the petty garásia who was always invoking the interference of the Agency, and the garásia refusing to admit the Chief's jurisdiction or to undertake any share of municipal duties or charges. If there was aggression on the one side, there was obstinate recusancy on the other. The refusal of the garásias to take the position of subjects became more sensibly injurious to the peace of the province after jurisdictions were defined in 1863, and events showed that against a weak Darbár armed resistance would be attempted and required to be suppressed by bloodshed. The business of the Rájasthánik Court is to survey and map the garásia's landed estates, to fix his miscellaneous dues, and also to define his relation to his Chief by laying down, on a reasonable principle, the extent of his municipal and political obligations. The term of three years for which the court was first established expired some years ago, but at the request of the Chiefs themselves it has been extended from time to time. Apparently this is an indication that they value the work that has been done in the peaceable establishment of definite rights and principles of action in place of the never-ending disputes and disorders which in past times convulsed the country, although their absolute powers over their vassals have been circumscribed.

The Rájasthánik Court disposed of 3,819 cases altogether from the commencement up to the 31st March 1893. Besides these 316 amicable settlements between Chiefs and vassals have been recorded. The total number of villages surveyed under the orders of the Rájasthánik Court is 1,586, and the work of survey is now drawing to a close.

The decisions of the Rájasthánik Court are recorded in six printed volumes and form a mass of precedents which should make the future settlement of garás disputes comparatively easy. The Court has thus fully answered the purpose for which it was intended and has effected the settlement of hundreds of disputes which might otherwise have led to serious disturbances throughout the country.

Police.

The preservation of order is a duty which the landholders are under special engagements to perform and which it is expedient that they should undertake for themselves without the intervention of Government. The agreement passed in 1807-08 is in these terms:—"Thieves shall not be entertained within our limits; if they are permitted to remain, it shall be under proper arrangements to prevent them from committing theft in other tálukás, or on the highways. We will do no wrongs to merchants and wayfarers passing to and fro, but set them safe as far as our borders. If loss befall any merchant or traveller, in whatsoever land or village the loss befalls, the owner of the village shall answer for it. Such satisfaction as the Sarkár shall demand in the case in point shall be given." These stipulations give the Political Agent very great powers to exact an efficient police system and to visit defaults with fine and under them he exercises a general supervision over the police establishments of the several states, some being maintained by Government.

Káthiáwár has no general police. Each state has its own, the larger ones possessing a more or less organized force, but every petty landholder being responsible for the preservation of order in his own estate. To make these fragmentary forces work together, a special officer was appointed in 1873 at the cost and with the consent of the states, and empowered to move through all jurisdictions in the pursuit of offenders. It was also arranged that the police of any state may enter the territory of another to effect a capture. The village police was also reorganized and police patels appointed in every village. These measures had an immediate effect, and the peace and order of the country were so effectually secured that in 1876 the special police force was abolished, and Government conceded that the absolute liability of the states to pay compensation for robberies under their agreements should be enforced with reasonable regard to the efforts they made to organize an efficient police. The police force in Káthiáwár numbers 7,135 foot and 1,216 mounted men, maintained at a cost of Rs. 10,80,549. In some states which are under Agency management, notably Porbandar, Vánkáner and Rájkot, the police are much improving in efficiency. His Highness the Máhárája of Bhávnagar takes a personal interest in his force by occasionally inspecting them and witnessing their manœuvres. His Highness the Jám of Navánagar and His Highness the Rájsáheb of Dhrángadhra have under the advice of the Agency

TRIBUTARY STATES. *Káthiáwár.*

obtained the services of trained Police Officers of Government for the control and reorganization of their police forces. In 1885 His Highness the Gáikwár's Contingent of Horse was disbanded and in lieu of it the Baroda Darbár agreed to make a cash subsidy for the employment of police in the Gujarát Agencies under the sole control of the British Government. A portion of this subsidy has been allotted to Káthiáwár and this together with contributions from Thánás, Agency stations and Railways provides the necessary funds for the Agency Police, which is a fine body of 206 mounted and 759 foot besides officers. During the late Miána outlawry the Agency Police acquitted themselves well and destroyed the whole gang, though at the cost of their leader Lieutenant Gordon and 2 of his comrades. With the example of the Agency Police before them, the states are also beginning to put their own police on a better footing.

Public Instruction.

One of the most useful institutions of the province is the Rájkumár College at Rájkot established in 1871, where education, physical as well as mental, is imparted to young Chiefs under the supervision of a European Principal in order to enable them to rule their states in a becoming manner. Several princes, thus educated, have gone forth and taken up the management of their states. Prominent among these are the Chiefs of Bhávnagar, Morvi, Gondal, Limbdi, Wadhwán and Wala. Each succeeding year establishes the College on a firmer basis, and already an old pupil of the College, His Highness the Máhárája of Bhávnagar, has sent his sons to the institution where he was himself brought up. The number on the rolls of the College at present is 39. A school for the sons of smaller Tálukdárs and petty landed proprietors called the Tálukdári Garásia School was built at the Wadhwán Civil Station during the year 1880-81. It was not at first viewed with favour by the Garásias, but their opposition has been overcome. Now boys come not only from Káthiáwár, but from neighbouring British Districts and Native States under other Agencies. At the end of the last year, the school had 56 students.

The general education of the people is progressing at a most rapid rate. There are at present 968 Vernacular, 19 Anglo-Vernacular and 6 High schools. The Bhávnagar State boasts of an Arts College teaching up to the intermediate class. When Colonel Keatinge came into the province, nearly 23 years ago, there were only 2 English and 45 Vernacular schools.

Roads and Communications.

In the matter of roads and communications too, the province has made great progress. Where there was not a single mile of road in 1865, there are now more than 600 miles for the most part bridged and metalled. Two great lines of trunk roads intersect the peninsula, one proceeding from Wadhwán to Junágadh and Verával and the other from Bhávnagar to Jodiya, both crossing each other at Rájkot, the head-quarters of the province. The Junágadh line has a branch bifurcating at Jetpur towards Porbandar, while the Jodiya line has a similar branch going towards Navánagar. These main lines have various feeders to connect the capitals and other important towns of the numerous states in the Province. Travellers' bungalows and dharmsháles have also been provided at convenient stages for the comfort of European and Native travellers.

Railways.

Within the last 12 years communication has been made much easier by the introduction of Railways, principally at the cost of Native Chiefs. The first entry of Railway into Káthiáwár took place in 1872, under the auspices of the B. B. & C. I. Railway Board. The terminus was at Wadhwán, and length of the line within the Káthiáwár limits 29½ miles. A Railway from Gogo to Gondal was planned in 1870 by private enterprize, but the project died in contemplation. In 1872 another line was proposed from Verával to Junágadh and Dhoráji and was surveyed by Mr. A. W. Forde, C. E., but the cost was beyond the means of the Junágad State, and the scheme came to nothing. In 1874 a third line was thought of from Bhávnagar to Wadhwán, but a difference of opinion as to the proper route and the probable cost prevented action. At length in 1877 Colonel J. W. Watson and Azam Gavrishankar Udeshankar, C.S.I., Joint Administrators of the Bhávnagar State, started a survey under the Executive Engineer of the State for a line through the Bhávnagar territory. The Gondal State employed Mr. Forde, C. E., to survey an extension of the line to Dhoráji and Government commissioned Mr. Hargrave, C. E., of the Baroda Railway to survey an extension of the Bhávnagar line to Wadhwán. All the three Engineers laboured under restrictions as to route, but their united labours resulted in a line being fixed, which on the whole has been broadly followed. The available funds were the savings which had accumulated to the Bhávnagar and Gondal States under British management during minorities. The first sod was turned on the 20th March 1879 by Mr. Sims and about two miles of embankment were finished when Mr. Alexander Izat, appointed Engineer-in-Chief by the Government of India, arrived and took personal charge. The main line was opened for traffic on 18th December 1880 by Sir James Fergusson, and a month later the branch line for Dhoráji was opened by the Political Agent Colonel Barton. The total length of this line was 192 miles and the total cost Rs. 96,25,000 which was shared by Bhávnagar and Gondal in the proportion of about two-thirds and one-third. The line was placed under the supervision and control of an officer of Government called the Manager and Engineer-in-Chief subordinate to a Committee composed of the Political Agent as President, and two members representing the two proprietary states. In 1886 the Junágadh State joined the movement and constructed at its cost the line from Jetalsar to its port of Verával passing its capital town, a length of 69 miles at a cost of Rs. 36,65,000. This extension was opened by Lord Reay in December 1887, when also the Dhoráji-Porbandar section was commenced. About the time that this line was under construction another one,

but on a more modest scale, was progressing in the north of Káthiáwár, its inception and creation being due to the enterprize of His Highness the Thákor Sáheb of Morvi. The Wadhwán-Morvi Railway was opened in March 1887 and the extension to Rájkot completed in December 1889, the final ceremony of opening having been performed by Lord Reay at Rájkot. Excluding 30 miles of line belonging to the B. B. & C. I. Railway, 474 miles of line have been laid down in Káthiáwár at a cost of Rs. 2,07,80,370. The Jetalsar-Rájkot Railway was commenced in February 1892. The proprietors are Junágad and Gondal who own a six-anna share each and Rájkot and Surag Wala of Jetpur who have two-anna shares. The line has been constructed by the staff of the Bhávnagar-Gondal-Junágadh-Porbandar Railway under an arrangement agreed to by the Syndicate of Junágadh-Rajkot Railway and the Committee of the Bhávnagar-Gondal-Junágadh-Porbandar Railway and approved by Government. The working of the line has also been entrusted to the same Railway on certain conditions. TRIBUTARY STATES. *Káthiáwár.*

His Excellency Lord Harris, Governor of Bombay, paid a visit to the province at the beginning of the year. He first proceded to Morvi and then to Bhávnagar, where he opened the Takhtsingji Hospital. He then paid a visit to Pálitána. His Highness Rasul Khánji, brother of the late Naváb Sir Bahádur Khánji, G.C.I.E., was formally recognized by the Government of India as Naváb of Junágadh, and was installed on the gádi by the Political Agent on June 20th, 1892. A Commission consisting of a European officer as president, and two members, one a Hindu and the other a Muhammadan, was appointed during the year to settle the long-standing disputes between the Hindus and Muhammadans of Somnáth Pátan. The Commission heard evidence and submitted a report to the Darbár. The disputes however led to serious riots during the last Muharram, causing a serious loss of life. The Mália State was attached for political reasons and the management placed in the hands of a special European officer. Owing to the constant disputes between Cutch and Morvi respecting the Wawánia and Jhinjhuda Bandars, Government was compelled to place these places under attachment with a view to a correct valuation of the rights of the respective parties and the subsequent separation of their interests. The railway extension from Jetalsar to Rájkot was completed and opened during the year. Important events.

The rainfall was above the average and the general outturn of the crops good. Season and Crops.

The results of the working of the State and Agency police with regard to ordinary crime were below the average, owing to the heavy strain put upon them by the prevalence of dacoity during the early part of the year. The number of cognizable offences reported to the Agency police fell in number from 610 to 414. They included 8 murders and 6 robberies. The total number of offences reported to the Agency and States' police together was 8,086, a decrease of 1,520 as compared with the total for 1891-92. The number of persons arrested and sent for trial was 9,310 and 8,817 as against 11,210 and 10,746 in 1891-92. The percentage of convictions to arrests was 54·51. The return of property stolen and recovered showed a decline; the percentage being 40·77 against 46·08. The total strength of the police was 8,351, maintained at a cost of Rs. 10,80,549. Police.

The Miána gang mentioned in last year's report continued to give great trouble during the first half of the year. Beginning the year in Cutch, where they carried off the dák-horses laid for His Excellency the Governor, they crossed to Káthiáwár, where they committed several loots and had several affrays with the Native State police. It was consequently found necessary to take stringent measures for their repression. The Malia State was attached and placed under a European officer. The services of Mr. Souter, Assistant Superintendent of Police, were placed at the disposal of the Dhrángadhra State for employment with the State police, and the Agency police were strengthened by the addition of a European officer as Assistant to the Superintendent. The police of Vánkáner, Rájkot, and Jetpur were also placed under European Superintendents. On the 20th November Mr. Souter succeeded in capturing one of the leaders of the gang. The latter however by way of retaliation at once looted two villages, one in Dhrángadra and the other in Morvi. Lieutenant Gordon was then sent after them, and came up with them at Karádia, where, after a fierce encounter, the whole gang were destroyed, but at the cost of the lives of Lieutenant Gordon and two of his men. Prevalence of outlawry.

The number of cases reported to the Criminal Courts of the province including the Agency Courts and those of the jurisdictional States was 16,969 as against 18,758 in 1891-92, and the number of persons involved was 24,014 as against 27,901. Of these cases the Agency Courts tried 1,036. Of the total number of accused sent before the Courts of the province 8,935 were convicted, 8,384 discharged, 5,596 acquitted, 72 committed and 68 died. The number of accused awaiting trial at the close of the year was 959, concerned in 411 cases. There were 78 criminal appellate Courts in the province, in which appeals were filed by 1,757 persons. The judgment of the original Courts was confirmed in the case of 870, modified in that of 351 and reversed in that of 446. Twenty-nine appeals were pending at the close of the year. Criminal Justice.

The total number of jails and lock-ups was 150 as against 154 in 1891-92. The number of prisoners confined was 9,771 as against 11,194. The total cost was Rs. 1,25,275 as against Rs. 1,31,400. Prisons.

The Agency Civil Courts disposed in all of 3,626 civil and political cases of the value of Rs. 8,07,961 as against 3,807 of the value of Rs. 35,71,695. Taking Agency and State Courts together, the number of cases disposed of during the year was 37,207 as Civil Justice.

TRIBUTARY STATES. *Káthiáwár and Cambay.*

against 34,365 in 1891-92. The arrears rose from 5,573 to 9,769. Nearly half of these were in Porbandar; Junágadh, Dhrángadhra, Morvi, Pálitána, Limbdi, Wadhwán and Sayla were responsible for the rest. The number of suits entertained by the Rájasthánik Court during the year was 343 and the number disposed of was 206: there were 594 cases awaiting settlement at the end of the year. The total number of appeals for disposal in the province was 2,488 as against 2,207 last year; of these 1,758 were disposed of. The number of applications for execution of decrees was 2,991 against 3,234 last year, of which 3,167 were disposed of. The number remaining at the end of the year was 1,135 against 1,311 in the previous year.

Registration.

The number of documents registered by the Agency Courts was 456 of the total value of Rs. 5,02,568, against 503 of the value of Rs. 6,70,355 in 1891-92. The fees realized fell from Rs. 8,002 to Rs. 3,054.

Trade.

The total exports by sea were valued at Rs. 2,77,64,994 and imports at Rs. 1,80,94,678, against Rs. 2,45,65,437 and Rs. 1,59,82,152 in the previous year. The increase was due to a favourable season. The earnings of the Bhávnagar-Gondal-Junágadh-Porbandar Railway increased from Rs. 14,77,263 to Rs. 15,78,179: those of the Morvi Railway were practically the same as in the previous year.

Public Works.

The expenditure of the various Native States on public works during the year amounted to Rs. 22,77,000 as against Rs. 22,24,454 in the preceding year. Bhávnagar headed the list with an expenditure of Rs. 10,75,405. The total amount spent by the Agency Engineer during the year was Rs. 2,15,221 against Rs. 2,66,626 in 1891-92; the principal work in course of construction was the Memorial Institute at Rájkot.

Local Funds.

The total revenue of the Consolidated Local Funds of Káthiáwár during the year amounted to Rs. 99,023. The expenditure was Rs. 1,21,602. The closing balance to the credit of the fund was:—

	Rs.
Cash	58,311
Invested	3,14,700
Total ...	3,73,011

The figures for the preceding year were Rs. 97,616 and Rs. 1,02,517. The increase in expenditure was due to re-appropriations for the police and Agency buildings. The revenue and expenditure of the States General Contribution Fund were Rs. 3,57,493 and Rs. 3,51,281 respectively. The balance to the credit of the fund at the close of the year was Rs. 6,85,809.

Medical Relief.

Hospitals and dispensaries numbered 95 as against 93 in the previous year. Excluding the West Hospital at Rájkot, the total number of patients treated amounted to 603,169 as against 583,419 in the previous year; the total cost was Rs. 2,07,001 against Rs. 2,00,117. At the West Hospital, 4,530 out-patients and 844 in-patients were treated as against 5,199 out-patients and 693 in-patients in the previous year. The decrease was due to the opening of a dispensary in Rájkot Town. The number of vaccinations rose from 83,442 to 86,855; and the cost from Rs. 14,272 to Rs. 26,366. The number of vaccinators was increased from 36 to 52. The States of Junágadh, Navánagar and Bhávnagar had maintained separate organizations of their own for vaccination. There was a severe outbreak of cholera at Muli in August 1892, and an epidemic of fever in Jhálávád during the cold weather; otherwise the year was generally healthy.

Education.

The educational institutions in the province numbered 998, an increase of 59 on the previous year's total. The number of pupils was 60,957 as against 59,804, and the expenditure Rs. 5,56,729 as against Rs. 5,35,647 in 1891-92. The control of all schools in Junágad, Bhávnágar, Porbándar, Morvi, Vánkaner, Pálitána, Rájkot and Wadhwan were handed over to the State authorities, on the latter agreeing to make an annual contribution towards the cost of inspection and to satisfy certain other conditions. There were 39 students on the rolls of the Rájkumár College as against 41 in 1891-92.

Tribute.

The tribute demands for the year amounted to Rs. 11,41,851. A sum of Rs. 10,93,802 was collected, leaving a balance of Rs. 48,049 outstanding at the end of the year.

CAMBAY.

Area, 350 square miles, Population (1891), 89,722; Gross Revenue, Rs. 7,83,703.

General.

The State of Cambay is situated in the west of Gujarát at the head of the Gulf of that name. The Chief is a Moghal, and enjoys the title of Nawáb.

The history of the State is practically the history of the town of Cambay which was famous for its wealth and the extent of its trade as early as the tenth century. About that time it fell under the sway of the Anhilwáda kings, who in 1240 were overthrown by the Vághelas. Under this dynasty it continued to increase in importance; Marco Polo visiting it in 1290 describes it as the chief city of a large province and the centre of a great trade. In 1304 it was captured and plundered by the Mussalmans; but it soon recovered and in 1345 was the seat of a great foreign trade. In 1411 the city passed under the rule of the Ahmedábád kings, whose active care for its trade and navy greatly increased its prosperity. With the advent of the Portuguese at the commencement of the sixteenth century, however, its commerce began to decline. Many of its former marts on the coasts of Africa and Arabia

TRIBUTARY STATES. *Cambay.*

were destroyed and most of the traffic with the South Coast of India and the islands of the eastern Archipelago was lost. Later on in 1538 the Portuguese Government captured and plundered the city, carrying away an enormous booty. The country then fell into disorder until reduced by the Emperor Akbar in 1573; and for the next century Cambay was on the whole free from pillage and disturbance. At the same time, though its manufactures still retained their former importance, the gradual silting up of its harbour drove a large part of its trade away to Surat. The English, however, in 1616 and the Dutch in the following year established factories, of which that belonging to the English continued to do a fair business until the middle of the eighteenth century.

When the Moghal power declined on the death of Aurungzeb, the country was exposed to the ravages of the Maráthas, who exacted large contributions from Cambay. About 1730, the general disorder of the country enabled the governor Mirza Jafir Nijam-ud-daulah, the lineal ancestor of the present Chief, to defy the authority of the viceroys of Gujarát and to act as if he was independent. He was compelled nevertheless to pay large sums to the Maráthas as well as a yearly tribute. The history of the remaining years of the century is practically nothing more than a record of the various attempts made by the Gáikwár and Peshwa to exact money from successive Nawábs, who in turn robbed their unfortunate subjects unmercifully. The treaty of Bassein in 1802 altered the state of affairs. By this the Peshwa's rights over Cambay were transferred to the British, and the Nawáb became a British tributary. By this year, however, owing to the vicissitudes through which the country had passed and the silting up of the port, the trade had dwindled to a very low ebb, and a large part of the city was in ruin. In 1818 the British Resident at Cambay was withdrawn and the Collector of Kaira appointed Political Agent in his stead.

From this year until 1882 there is little to record about the State. The Nawáb conducted the administration and was practically uncontrolled as the Political Agent was little more than a medium for correspondence between him and the Government of Bombay. During the next ten years, however, Cambay was on two occasions brought into unfavourable prominence.

The first occasion was in 1882 when the inhabitants of the city, led on by the leaders of the Mahájan community, rose against the administration of the Diwán Mr. Shámráo N. Laud and his subordinates, and migrated *en masse* to Kanissa, a village situated in His Highness the Gáikwár's territories, a few miles from Cambay. At the same time all the shops in the town were closed, and the inhabitants who remained behind were unable to obtain the necessaries of life. This state of things only ceased on the Bombay Government directing that an enquiry should be held respecting Mr. Laud's administration. After a protracted investigation it was found that though the major part of the allegations made against him were false, many of his measures had been untimely and injudicious in the extreme. He was consequently removed from the post of Diwán, and the Nawáb's brother-in-law Mr. Mahomed Nabi Khán was appointed in his stead. A retired revenue officer of great experience from British service was also selected to assist him. After a few months, however, both these gentlemen were dismissed and Mr. Shamráo N. Laud was re-appointed Diwán. For the next 6 years matters, as far as could be seen, went on fairly smoothly. It was known that the State was financially embarrassed and that its methods of collecting land revenue and general administration were somewhat antiquated. It was believed, however, that Mr. Laud was doing his best to pay off the debts that had accumulated and to re-organize the police and other departments. In 1885 the Bombay Government advanced to the State two lákhs of rupees for the liquidation of the debts and another lákh to enable a survey to be started. In 1890, however, there were for the second time serious troubles in the State. Although outwardly the administration of the State had seemed to be progressing smoothly, there had in reality been gross misrule and oppression. In September 1890 the Diwán announced that a "Kutcha Jamábandi" would be made during the year. This meant that the old heavy and uneven rates of assessment would again be levied. The ryots who had expected to be called on to pay the same rates as in British territory refused to submit to these exactions and on 20th September broke into open revolt. A detachment of troops was quickly summoned from Ahmedábád and quiet restored after a little street fighting. After this, at the request of Nawáb, who was a fugitive from his State, a special Political Agent was appointed by Government, and the work of rehabilitating the State taken in hand. Selected British officers were appointed to fill the posts of Diwán, Revenue Officer and Police Superintendent.

The task before the new administration was sufficiently severe. They started with an empty treasury, a burden of debt amounting to Rs. 4,50,000 (Cambay currency), enormous arrears of work, and confusion generally everywhere. It was necessary to restore confidence among the people, to put the finances in order, to abolish objectionable taxes, to reform the police, to reduce the military forces of the State, to introduce an equitable survey settlement, and to remodel the Judicial Department. All this has been done thoroughly, and the State is now again on the high-road to prosperity.

Abkári and Custom arrangements.

Both salt and opium were formerly produced within the limits of the State, but the manufacture has ceased since 1878. An agreement was made by the Nawáb with the British Government in 1881 by which he agreed, in consideration of receiving a yearly subsidy of Rs. 40,000 and the privilege of importing 21 chests of opium every year free of duty, to prevent the production of opium or salt in his State. Further, in 1887-88, the Nawáb agreed

TRIBUTARY STATES. *Cambay.*

in return for a yearly payment of Rs. 35,000 to lease the State ábkári rights to the British Government for a period of ten years.

Important events.

The year was one of quiet progress, the principal event being the completion of the introduction of the new Survey Settlement, the rates for which were published in May 1893. The reception of the rates by the ryots was favourable on the whole. Progress was made in collecting the arrears of revenue due to the State when the Special Administrator was appointed and Rs. 1,31,000 were paid in liquidation of the State liabilities. The settlement of the important Garasias' dispute was approaching completion. Of the two boundary disputes referred to in last year's report, one was entrusted to the Tálukdári Settlement Officer for decision, and negotiations were in train for transferring the other to the same agency for settlement.

Season and Crops.

The rainfall during the year under report was above the average and unusually late. Heavy falls at the end of August and beginning of September 1892 did much damage to the bájri, jowári and rice crops. The wheat crop subsequently suffered severely from caterpillars. The season was very unfavourable to live stock, and the villagers suffered heavy losses in this direction.

Military.

The strength of the military force again dropped from 433 to 392; the cost of maintenance however was Rs. 39,960 against Rs. 38,467 in the preceding year.

Police and Criminal Justice.

The regular police force numbered 172 as against 177 in 1891-92. It was maintained at a cost of Rs. 35,883 as against Rs. 40,764 in the preceding year, a substantial reduction of Rs. 4,881. Two hundred and fifty-three crimes were reported to the police as against 379 last year. Of these 15 were excluded by the Magistrates as false; of the remaining 238, 180 involving 306 persons were sent up to the Magistrates for trial and 58 remained undetected. Out of the 180 cases sent up convictions were obtained in 117, 23 were compounded, 28 were discharged, 7 struck off after commitment and 5 remained pending at the close of the year. The total number of persons arrested was 335, of whom 306 were sent for trial. Of these, 163 were convicted. The percentage of convictions to arrests was 48·65 as against 50·25 last year, and of convictions to persons actually tried 70·25 as against 68·8. Property of the value of Rs. 4,596 was reported as stolen in 135 cases, as against Rs. 8,195 in 196 cases in the previous year. The recoveries amounted to Rs. 1,505 as against Rs. 3,409 last year, giving a percentage of 32·7 as against 41·5. The most common offences were house-breaking and theft and simple theft, but in both there was a diminution as compared with last year, the figures being 41 and 94 as against 82 and 102. There were 6 Criminal Courts at work in the State as against 7 in the previous year, the two Courts of the 1st and 2nd class Magistrates at Cambay having been amalgamated during the year. Including 25 cases pending at the commencement of the year, the total number of cases for disposal was 438 as against 512 last year. Of these 417 were disposed of, leaving a balance of 21. The number of accused persons involved was 806 as against 966 in 1891-92, and of those disposed of, 762; of these, 261 or 34·2 per cent. were convicted. The total number of appeals was 21, all of which were disposed of. In 16 the original order was confirmed, in 4 modified, and in 1 remanded for further enquiry. The special Political Agent presiding over His Highness the Nawáb's Court disposed of the 4 special appeals preferred.

Prisons.

The daily average of convicted prisoners was 47 as against 46 last year. The total number confined however was 164 as against 187 last year. The maintenance of the jail cost Rs. 4,367 as against Rs. 4,382 in the preceding year. The health of the prisoners was good and there were no deaths in the jail. Two prisoners escaped owing to the gross carelessness of the jailor.

Civil Justice.

There were 4 Civil Courts at work in the State during the year, two of which exercised appellate powers only. One disposed of cases in which the Sardárs or nobles of the State were parties and one did ordinary original work. In the latter, including the balance of 189 cases from the preceding year, the total number of cases for disposal was 3,330; of these 3,195 were disposed of, leaving a balance of 135. The aggregate value of suits instituted was Rs. 1,22,436 as against Rs. 98,640 last year. The Sardárs' Court disposed of 13 out of the 15 brought before it. With the arrears from last year there were 173 appeals for disposal; of these, all but one were decided. In the Nawáb's Court, 39 special appeals were filed during the year as against 21 last year and 32 were disposed of. There were 626 applications for the execution of decrees pending from last year and 2,327 new applications were filed during the year. Of these 2,511 were disposed of, leaving a balance of 442. Under the Mámlatdárs' Courts Act there were 130 cases during the year, and 3 were pending from last year. All of these were disposed of.

Registration.

There were 1,337 documents presented for registration as against 983 last year, an increase of 36·01 per cent. The value of the property affected was Rs. 3,91,901 as against Rs. 2,89,872 last year. The receipts of the department were Rs. 9,390 as against Rs. 7,823 in the previous year.

Municipality.

The income of the Cambay Municipality rose from Rs. 8,477 last year to Rs. 13,365 in the year under report: the expenditure was Rs. 16,486. The State contributed Rs. 3,121 to meet the deficit.

Public Works

The expenditure on public works was Rs. 54,916 as against Rs. 49,576 in the preceding year. The State Hospital and Dispensary, jail improvements, additions to the

Anglo-Vernacular School and other minor works were completed during the year. A new Court-house was in course of construction.

TRIBUTARY STATES. *Cambay, Rewa Kántha and Nárukot.* Revenue and Finance.

Total receipts amounted to Rs. 7,83,703 against Rs. 8,09,096. The decrease was however more nominal than real, as last year's figures were swollen by a loan of Rs. 1,25,000 from Government. In reality the actual revenue for the year exceeded that for 1891-92 by Rs. 25,488, being Rs. 6,70,966 against Rs. 6,45,478. The disbursements fell from Rs. 7,17,760 in 1891-92 to Rs. 6,76,869 in 1892-93. There was a closing balance of Rs. 1,06,834 against Rs. 91,336 in 1891-92. A sum of Rs. 1,56,463 was paid in liquidation of the State debts.

Vital Statistics and Medical Relief.

A new State hospital and dispensary were opened during the year. Two hundred and fifty-three in-patients and 25,049 out-patients were treated during the year, as against 164 and 18,326 last year. The average daily attendance was 362 against 309 last year. The cost of maintenance was Rs. 7,540. The number of vaccinations during the year was 2,475, an increase of 247 over last year's figures. There were 2,388 births and 3,273 deaths registered as against 2,574 and 2,992 in the preceding year.

Education.

The number of schools increased from 15 to 20 during the year and the expenditure from Rs. 6,358 to Rs. 8,662. The average attendance was 1,537, of whom 115 were girls as against 1,443 in the previous year.

REWA KÁNTHA AND NÁRUKOT.

Area, 4,980 square miles; Population (1891), 733,506; Gross Revenue (roughly), Rs. 24,08,004.

General.

The Rewa Kántha Agency contains 6 large and 55 small States, lying between the two divisions of the Panch Maháls District and under the political supervision of the Collector of that district. The most important is the first class State of Rájpipla, and next to it, the five second class States of Chhota Udepur, Devgad Báriya, Lunaváda, Balásinor and Sunth. There are four other States of some importance, Kadána, Bhádarwa, Sanjeli and Umetha; the remaining fifty-one are petty Mewási estates. Rájpipla State is under the management of an officer of the British Government. The five second class States are governed by their respective Chiefs who have full authority over their own subjects. The State of Kadána is under the management of the Agency owing to the minority of the Thákor. Of the fifty-one Mewási estates also, fifteen are administered by the same authority owing to the minority, indebtedness, or incapacity of their Chiefs.

Historical summary.

During the eighth century the Rewa Kántha was nominally under the sway of the Anhilváda kings, whose chief town in the part of the province was Chámpáner. The real power in the country was however in the hands of Koli and Bhil Chieftains called Bariyas, who were gradually supplanted by Rájput fugitives from the north. The Ahmedábád kings subsequently extended their authority over this tract, and established their head-quarters at Chámpáner. In the seventeenth century however the advent of the Maráthas weakened their power, and the local Chiefs refused to pay them tribute. But the Maráthas soon overcame all opposition and collected tribute by force.

The younger branches of the Chief's families had, from time to time, been forced to leave their houses and win for themselves new estates; and these, with the descendants of a few of the original Chiefs, form the present Thákors of the petty Mewási estates. Under the Maráthas they plundered the country; and as the Gáikwár failed to keep order, the charge of the district was undertaken by the British. In 1820 an agreement was made with the Gáikwár under which the control of all the Baroda territories vested in the British Government, and in 1825, the Pándu Mewás was placed under their charge. At the same time the political control of Sindia's Panch Maháls was made over to the British, and the Báriya State was transferred from the Bhopávar Political Agent. These States were placed under the charge of a Political officer, and soon after the States of Lunáváda and Sunth were transferred from the Mahi Kántha to the Rewa Kántha Agency. Balásinor was also added, and on an exchange of villages near Gwálior from the Panch Maháls the latter became British territory in 1862, and now form a separate district.

The Naikdas rose in 1838, and being guilty of great excesses, they were subdued by a military force. In 1868 they rose again under the leadership of an old rebel of 1857 named Rupsingh, who had been pardoned. He associated with himself in his enterprise one Jain Bhagat, a religious leader of great influence, who gave out that he was an incarnation of the supreme deity and was going to introduce reforms under Hinduism. Between them they collected a large band of followers and attacked and plundered Rájgad, Jámbughoda and other places. On this troops were summoned from Ahmedábád and Baroda, who in a very short time dispersed Rupsingh's levies. The two leaders after wandering about the country for nearly a month were caught, and after trial, were convicted and hanged.

The State of Rájpipla, owing to mismanagement, was placed in the year 1884 under the joint administration of an officer of the British Government and the Rája. In October 1887 the administration was entrusted solely to a British officer.

The relations of the Rewa Kántha States with the surrounding frontier States during the year continued to be friendly. No Border Court was held during the year for the settlement of disputes between the Mewár States and the neighbouring States of Rewa Kántha, as the Political Superintendent, Hilly Tracts, Mewar, was otherwise engaged. The arrangement by which the management of the ábkári and opium revenue in the

TRIBUTARY STATES. *Rewa Kántha and Nárukot.*

Sánkheda, Pandu and Dodka Mewási was assumed by the British Government in 1888 for ten years, continued to work satisfactorily. The agreement for the remission of the tribute payable by the Báriya State was concluded with the Chief during the year.

Important events.

Eleven miles of the Godhra-Ratlám Railway extension were opened during the year. The line passes through the territory of the Devgad Báriya State.

Season and Crops.

The season was on the whole a favourable one both to crops and public health. The rainfall was above the average. The prices of staple-food grains fell to a certain extent. There was no epidemic during the year in any part of the Agency except Báriya, where cholera was prevalent for a short period.

Rájpipla.

The income and expenditure of the Rájpipla State amounted during the year to Rs. 8,30,991 and Rs. 7,09,468, respectively, against Rs. 7,73,973 and Rs. 6,82,581 in the previous year. The expenditure on public works amounted to Rs. 1,31,552 as against Rs. 1,29,734 last year.

Chhota Udepur.

There was an increase of Rs. 27,803 in the amount of revenue of the Chhota Udepur State which was returned last year at Rs. 2,30,655. The expenditure amounted to Rs. 2,69,052 against Rs. 2,00,502 in the preceding year. The increase in the revenue was mainly due to the recovery from the ryots of "Chanla Vero" in connection with the marriage of the Rája's daughter, while that in the expenditure was attributed to expenses connected with the marriage. A sum of Rs. 18,520 was spent on additions and repairs to the palace and other Darbári buildings and Rs. 2,078 on works of public utility.

Báriya.

The revenue of the Báriya State rose from Rs. 2,71,003 to Rs. 2,72,218, while the expenditure decreased from Rs. 1,78,520 to Rs. 1,76,232. The expenditure on public works amounted to Rs. 27,154, of which Rs. 5,168 were devoted to works of public utility, the remainder being spent on palace buildings.

Lunáváda.

The income of the State of Lunáváda during the year amounted to Rs. 2,54,668 against Rs. 2,35,065 in the previous year. The expenditure was returned at Rs. 2,50,550. Rs. 14,544 were spent on State buildings and other public works.

Balásinor.

The revenue of the Balásinor State during the year was Rs. 1,63,799 against Rs. 1,39,573 last year. The expenditure amounted to Rs. 1,52,941 or Rs. 12,641, more than that of the preceding year. The expenditure on public works was Rs. 41,881, of which Rs. 4,320 were spent on works of public utility and the remainder on palace buildings.

Sunth.

The income of the Sunth State during the year amounted to Rs. 1,50,347 against Rs. 1,57,816 in the previous year. The expenditure was Rs. 1,25,679, or Rs. 3,192 less than in the preceding year. Rs. 16,974 were spent on public works, half of this amount being expended on the construction and repairs to roads, wells, and tanks &c., and the other half on Darbári buildings.

Kadána.

The Thákor of Kadána, who is a minor, continued to attend the Tálukdári Garásia school at Wadhwán. The revenue during the year was Rs. 22,732, and the expenditure Rs. 15,358. A sum of Rs. 973 was spent on public works.

Sanjeli.

The income of the Sanjeli State amounted to Rs. 21,355, while the expenditure was returned at more than double that amount, including the special expenses that had to be incurred in connection with the marriage of the Thákor's daughter. Rs. 482 were expended on public works.

Bhádarwa.

The revenue of the Bhádarwa State during the year was Rs. 42,362. The expenditure amounted to Rs. 41,475. This included the large sum of Rs. 19,601 paid annually as tribute to His Highness the Gáekwár's Government.

Nárukot.

The State of Nárukot continued under the Political Agency of the Collector of the Panch Maháls. The income and expenditure during the year amounted to Rs. 12,952 and Rs. 13,189 respectively. A sum of Rs. 592 was spent on public works.

Police.

There was no important change in the cost and strength of the police force in Rewa Kántha. Each of the ten principal States had a police force of its own. The Thandarates of Sánkheda, Pandu and Dodka Mewás were served by the Agency police, while the Jambughoda garrison was furnished by the Panch Maháls force, the Nárukot State paying one-third of its cost. The number of offences reported to the police was 1,766 against 1,660 last year. The increase was chiefly in Lunáváda and Sunth States. Of the 2,046 persons arrested, 1,918 were sent for trial, of whom 1,296 were convicted, 471 were acquitted or discharged, and 151 remained under trial at the close of the year. The value of the property stolen during the year amounted to Rs. 30,525, of which Rs. 11,937 or 39 per cent. were recovered. The Police of Báriya and Balásinor achieved the best results.

Criminal Justice.

During the year 3,580 persons were brought before the Magistrates against 3,733 in the previous year. Of the former 1,775 or 49 per cent. were convicted, 484 acquitted or discharged, 1,124 were allowed to compound, 61 were committed or referred, 16 died or escaped, and 120 remained for trial at the end of the year. The number of serious offences during the year was 383 against 381 in the preceding year. Eleven appeals were preferred to the Political Agent, of which 8 were rejected. In 3 cases the sentences were reversed.

Prisons.

The total number of prisoners confined in the several jails in the Agency was 1,994 against 2,155 in the preceding year.

The total number of suits was 510, including 60 of the previous year. Of these, 419 were disposed of. The value of the suits instituted amounted to Rs. 30,343. The number of appeals for disposal was 24, of which 22 were decided.

There were 11 dispensaries in the Agency. The average daily attendance varied from 2 to 109. The total number of vaccinations performed during the year was 25,888 against 26,730 in the previous year.

The number of schools increased from 122 to 136 during the year.

SOUTH GUJARA'T.

DHARAMPOR.

Area, 794 square miles; Population (1891), 120,498; Gross Revenue, Rs. 3,90,841.

General.

Dharampor is a small State lying to the east of the Balsár sub-division of Surat District, and was under the political supervision of the Agent to His Excellency the Governor at Surat throughout the year. The ruling family are Sisodia Rajputs of the Solar race, and according to tradition, conquered the country from the Bhils about 700 years ago. Their first authentic appearance in history is in 1576, when the then Rája went to meet Akbar's minister, Todar Mal, at Broach, and agreed with him to serve as a feudatory of the viceroy of Gujarát. When Shiváji in 1670 was attacking Surat, the Chief of Dharampor assisted him, for which assistance Shiváji rewarded him by depriving him of his main fortress (1672). In 1727 the Maráthas further increased their power over the Rája, depriving him of seventy-two of his villages and forcing him to pay one-fourth of his transit dues. These villages were never returned, but were made over to the Portuguese, and now form part of Damaun. In 1803 by the treaty of Bassein the Peshwa's claims to tribute was made over to the British. Since then the State has remained under the control of its Chiefs subject to general supervision by the Political Agent. The last Chief Narandevji, who had been on the gádi since 1860, and was somewhat unenlightened, died in August 1891. Under the rule of his son Mahadevji many improvements have been introduced into the State. The police force has been completely reorganized, the systematic liquidation of the State debts has been commenced, and arrangements made to survey the land under British supervision.

Season and Crops.

Both rainfall and crops were above the average. The public health was good.

Survey.

Ninety villages were surveyed and 19 traversed. Proposals for the resurvey and classification of all the State villages under the supervision of a British officer were sanctioned by Government.

Police and Criminal Justice.

The total strength of the police force was 120 including the A'bkári Police. The cost was Rs. 16,005. The offences reported numbered 578. Seven hundred and seventy-eight persons were tried, of whom 494 were convicted. The rest were acquitted and discharged. The value of the property stolen amounted to Rs. 3,291, of which 96 per cent. was recovered against 54 per cent. in 1891-92.

Prisons.

The admissions to Dharampor jail were 223 during the year. The cost of the jail was Rs. 945 against Rs. 1,290 in 1891-92. Six persons died in jail.

Civil Justice.

There were 6 suits pending from last year, and 125 new suits were filed during the year under report. Of these, 128 were decided during the course of the year, leaving a balance of 3 undisposed of. Twenty-five appeals were filed, of which 18 were decided and 7 remained pending at the close of the year.

Revenue and Finance.

The gross revenue amounted to Rs. 3,90,841 against Rs. 2,85,003 last year. The increase occurred principally in Land Revenue, A'bkári, and school-fees. The ábkári revenue rose from Rs. 1,12,559 to Rs. 1,49,207; the expenditure rose to Rs. 3,94,631 against Rs. 3,35,302. Rs. 84,773 were paid in liquidation of debt during the year. The expenditure exceeded the receipts by Rs. 3,790.

Public Works.

The expenditure on public works was Rs. 52,159 against Rs. 38,300 in 1891-92. The major portion of the expenditure was incurred on works of public utility.

Vital Statistics and Medical Relief.

The patients treated in the dispensary numbered 10,667 against 9,833 in the previous year. The expenditure was Rs. 5,121 against Rs. 4,738 in the last year. The number of children vaccinated was 5,464 against 5,522 in the previous year. Deaths were 1,415 against 2,055 in the last year, and births were 2,035 against 2,646 in 1891-92.

Education.

Schools were maintained at a cost of Rs. 4,476 against Rs. 3,755 in 1891-92. The number of pupils was 557 against 661 in the preceding year.

BA'NSDA.

Area, 215 square miles; Population (1891), 41,373; Gross Revenue, Rs. 3,47,451.

General.

The State of Bánsda lies due north of Dharampor between the Chikhli Táluka of the Surat Collectorate on the west and the Dángs on the east. It forms a belt of rough tree-covered country full of small hills and valleys lying between the Surat plain and Sahyádri mountains. The ruling family are Solanki Rajputs, but their origin is lost in obscurity. The first authentic mention of them is in 1753, when a dispute regarding the succession to the gádi was referred to the Peshwa for decision. Owing to the death of the successful claimants the arbitration of the Peshwa was again sought in 1770 and 1789. From the latter year onward the

TRIBUTARY STATES. *Bánsda and Sachin.*

Maráthas exacted succession duties and tribute; and by the treaty of Bassein in 1803 their rights were transferred to the British. The latter left the internal management of the State to the care of its own Chiefs until 1832, when owing to the minority of the Rája and the mal-administration of his guardians, the British Government interfered and placed a special officer in charge. This arrangement lasted until 1852. In this year the Chief was entrusted with the administration, which he and his son after him carried on until the latter's death in 1876. His son Prátápsingji, the present Chief, was then a minor, and the State was consequently again placed under Government management. In 1885 the Chief, who had been carefully educated, was entrusted with the management of affairs which he has since retained under the supervision of the Agent to His Excellency the Governor at Surat.

Season and Crops.

The rainfall was excessive; but the crops were good on the whole.

Police and Criminal Justice.

The strength of the police force was 79. Offences reported were 287 against 211 in the previous year. Four hundred and sixteen persons were tried, of whom 289 were convicted, 126 were acquitted or discharged, and one was untried at the end of the year. There were 8 appeals during the year.

Prisons.

Ninety-eight persons were admitted into the jail during the year and 34 were remaining from last year. The daily average of inmates was 15. There was one death in the jail.

Civil Justice.

Eight civil suits remained undecided from the previous year and 274 were filed during the year against 212 in the previous year. All these were disposed of except 2. One appeal was filed and disposed of.

Registration.

Sixteen deeds of the value of Rs. 4,559 were registered.

Revenue and Finance.

The gross revenue amounted to Rs. 3,47,451 against Rs. 3,00,383 in the previous year, and the gross expenditure was Rs. 2,21,667 as against Rs. 2,18,969, leaving a surplus of Rs. 1,25,784. The revenue from forest during the year rose to Rs. 37,346 from Rs. 24,072 in the preceding year.

Public Works.

The expenditure on public works was Rs. 27,637 during the year, against Rs. 35,101 in the previous year. Three wells, two bunds, four staging bungalows, two roads and police quarters were constructed during the year.

Vital Statistics and Medical Relief.

Eight thousand seven hundred and thirty-four patients were treated in the Bánsda dispensary during the year, against 12,048 in the previous year. The expenditure amounted to Rs. 4,181 against Rs. 3,439 last year. Sixteen hundred and seventy-three children were vaccinated during the year. The number of births and deaths registered was 694 and 572 against 893 and 599 respectively in 1891-92.

Education.

There were 17 schools, with 657 pupils, maintained at a cost of Rs. 5,510. The State continued to maintain a free library.

SACHIN.

Area, 42 square miles; Population, (1891), 19,337; Gross Revenue, Rs. 2,32,002.

General.

The Sachin State consists of twenty villages scattered through the Chorási and Jalalpur sub-divisions of Surat District. The Nawáb is of African descent, and his ancestors, under the names of the Sidis of Rájápur and Janjira in the Konkan, were well-known in the sixteenth and part of the seventeenth centuries as the Admirals of the Bijápur kings, and subsequently as serving the Moghal emperors in the same capacity. On the decline of the Mogul empire in the early years of the eighteenth century, the Janjira Sidis became notorious pirates. During the same period they were constantly at war with the Maráthas, who made expeditions almost yearly against Jánjira, but never succeeded in conquering it. In 1782 disputes arose as to the succession of the throne, and on the rightful heir appealing to the Peshwa for assistance, the latter agreed to grant him the land now forming Sachin State, in return for his making over to the Maráthas his claims on Janjira. The grant was made, although the Peshwa failed to conquer Janjira. The Sachin State continued under the control of its Chiefs from this year until 1835, when owing to the indebtedness of the Nawáb it was attached by the British Government, and placed under the management of the Agent to the Governor at Surat. This arrangement lasted till 1859, when the Nawáb was restored on his promising to continue the liquidation of the debt. This promise he faithfully carried out until his death in 1868. He was succeeded by his son, who died in 1873, leaving a son of nine years of age. The State was managed by the Assistant to the Political Agent at Surat for 11 years, during which time the whole of the debt was cleared off. The Nawáb was entrusted with the administration of the State in 1885, but abdicated in 1886. Since this year the State has been managed on behalf of his son, a minor, by the Assistant Collector in charge of the Chorási sub-division of Surat.

Season and Crops.

The season was on the whole favourable. The rainfall was fair. The cotton, rice, sugarcane, wheat, tur and castor oil seed crops were good; but jowár and bájri were below the average. The mango crop was better than last year. Fever was very prevalent in the cold weather; but with that exception public health was good.

Police.

The police force consisted of 5 sowárs and 52 foot police as in the previous year. Thirty-four offences or three more than in the previous year were reported. There was only one serious crime. Thirty-seven accused, the same number as in 1891-92, were convicted and punished.

There was one jail at Sachin, and small lock-ups in every village. Fourteen persons were sentenced to various terms of imprisonment. All were confined in the Sachin jail. TRIBUTARY STATES. *Sachin and Khándesh Political Agency.*

Six civil cases remained undisposed of from the previous year. One hundred and seventy-nine fresh plaints were filed during the year under report. Of these all were disposed of except 6. Five appeals were filed during the year under report. All, except one, were disposed of. Civil Justice.

The opening balance of the year under report was Rs. 2,18,875. The total receipts were Rs. 2,32,002, making a grand total of Rs. 4,50,877; and the expenditure amounted to Rs. 2,19,655, leaving a closing balance of Rs. 2,31,222. The expenditure was greater than that of the previous year by Rs. 50,651. The ábkári revenue amounted to Rs. 33,519 or Rs. 3,263 more than that of the previous year. Revenue and Finance.

The expenditure on public works amounted to Rs. 44,346, being Rs. 19,231 more than that of the previous year. The major portion of the expenditure was incurred on account of communications. Public Works.

The expenditure under this head including sanitation and conservancy charges amounted to Rs. 3,303 or Rs. 268 more than that of the previous year. The number of births and deaths registered was 580 and 734, as against 654 and 712 respectively in 1891-92. Vital Statistics and Medical Relief.

The expenditure on education amounted to Rs. 5,784, or Rs. 182 more than that of the previous year. There were 21 schools open. Education.

NORTH KONKAN.

THE KHÁNDESH POLITICAL AGENCY.

Area, 1,623 square miles; Population (1891), 59,055; Gross Revenue, Rs. 1,75,792.

The 6 petty Mewás estates in British India and the Dángs form the two groups of estates under the supervision of the Political Agent and Collector of Khándesh. The inhabitants are Bhils, and very poor and backward. The country is very hilly and covered with dense forests yielding valuable timber and gums. The revenue is small and generally paid in kind. The administration of justice, both civil and criminal, is in the hands of the Collector of Khándesh; capital sentences or those involving more than 5 years' imprisonment, being referred to Government for confirmation. Petty cases are settled by the Chiefs, each among his own subjects; the punishments inflicted are chiefly fines in money or cattle. General.

Káthi is the most important of all the estates and is well managed by the Chief Chandrásing. He made great efforts during the year to improve the condition of his estate, but his exertions did not meet with as much success as they deserved, the bad climate driving new settlers away. The revenue of the estate rose from Rs. 39,674 to Rs. 54,357, the chief item being Rs. 12,356 for more timber felled. The expenditure also increased from Rs. 50,648 to Rs. 54,965. The expenditure was swollen during the year by the marriages of the Chief and his younger brother. The expenses in this connection amounted to Rs. 21,400. The balance to the credit of the estate at the end of the year was Rs. 46,116. The Chief Chandrásing was invested with 3rd class magisterial powers and tried two cases during the year. Mewás Estates. Káthi.

The Chief Surupsing, of the Ráisingpur estate, is a minor under the guardianship of the Political Agent, and attends the English school at Dhulia, where he is getting on well with English. The revenue of his estate rose from Rs. 23,680 to Rs. 26,986. The expenditure increased by only Rs. 95. The balance to the credit of the estate stood at Rs. 1,35,578, part of which it is proposed to spend upon a road from Taloda to Gavhali. There was one school in the estate attended by 15 boys. Ráisingpur.

Gumansing, the Chief of Chikhli, managed his estate during the year well. The revenue of the estate rose from Rs. 30,804 to Rs. 34,807. The expenditure also rose from Rs. 25,558 to Rs. 42,814. The Chief exercises 3rd class magisterial powers, and tried 8 cases during the year. Chikhli.

The income of the Singpur estate fell from Rs. 6,921 to Rs. 6,103. This was owing to a fall of over Rs. 1,200 in the value of timber felled. The expenditure fell from Rs. 6,939 to Rs. 6,434, and the year closed with a balance of over Rs. 12,000. The Chief exercises 3rd class magisterial powers and decided 3 cases during the year. Singpur

The income of the Nála estate rose from Rs. 4,812 to Rs. 6,114, the principal items of increase being Land Revenue and Forests. The expenditure rose from Rs. 4,813 to Rs. 6,449. The Chief was considerably in debt at the end of the year. Nála.

The revenue of the Nawalpur estate rose from Rs. 3,839 to Rs. 4,015, and the expenditure also exceeded that of last year by Rs. 1,968. This was owing to the celebration, during the year, of the marriages of the Chief and his brother. Nawalpur

The Political Agent held the annual Dáng Darbár at Dhaner, Táluka Pimpalner, on 5th May 1892. No complaint was made by any one of oppression or ill-treatment on the part of the Chiefs. Dángs.

TRIBUTARY STATES.

Surgána and Jawhár.

SURGÁNA.

Area, 360 square miles; Population (1891), 12,398; Gross Revenue, Rs. 19,116.

History.

This little State lies to the north-west of the Násik District and adjoins the tálukas of Kalwan, Dindori and Peint, and is thus bounded on the east and south by British territory. On the west it is bounded by the Native States of Dharampor and Bánsda and on the north by the Khándesh Dángs. The general features of the country resemble those of the Dángs to which it is adjacent. During the Muhammadan rule a nominal allegiance was exacted from the Chiefs, who were expected to prevent the Bhils of the Dángs from passing above the Sahyádris and to keep open the various roads through their territories. The title of Deshmukh was conferred on one of the chiefs in return for his exertions in satisfying the rulers in these respects. Under the Maráthas he was allowed a considerable degree of independence, as the position of his State on the highway between the Deccan and Surat made him a person to be conciliated. In 1818 the Chief offended the British Government by an attack made on a party stationed at Surgána, and an expedition was sent against him, which seized and hanged him. On this, disputes arose as to the succession, which were not finally settled till 1842. The Chief now administers his State with the assistance of a Kárbhári under the control of the Collector of Násik as Political Agent.

General.

The rainfall during the year was good and the harvest plentiful. The criminal work of the State was heavier than usual. There were in all ten ábkári offences and 14 under the Indian Penal Code involving 37 persons, of whom 23 were convicted and 14 discharged. The gross revenue amounted to Rs. 19,116 against Rs. 13,313 in 1891-92, and the gross expenditure was Rs. 15,629 against Rs. 14,288. The income of the State was chiefly derived from land revenue, ábkári tolls, and forests. There was but one school attended by 19 boys.

JAWHÁR.

Area, 534 square miles; Population (1891), 52,831; Gross Revenue, Rs. 2,37,444.

General.

Jawhár lies in the north-east of the district of Thána, and is under the political control of the Collector of that district. Up to the first Muhammadan invasion of the Deccan the greater part of the Northern Konkan was held by Koli amd Várli Chiefs, and in 1343 the Chief of Jawhár was given the title of Sháh, and recognized by the Delhi Emperor as Chief of a tract of land containing 22 forts and yielding a revenue of 9 lákhs. The Ahmedábád kings, although they held the sea coast of Thána, did not interfere with the inland parts of Jawhár, but on the advance of the Portuguese their territory was somewhat narrowed. On the decay of the latter the Mogul generals sought alliances with the Jawhár Chief, who about 1690 with their help plundered the Portuguese villages and churches in North Konkan. About that time the territory extended from Bassein to Dáhánu, except the sea coast. But the successes of the Maráthas curtailed the territory, Jawhár was compelled to pay tribute, and on several occasions the State was attacked on various pretexts. On the death of the last Chief in 1865, arrangements were made by the British Government for the proper education of his successor, the present Chief, who assumed charge in 1877. Since that year the Jawhár State has continued to be administered by the Rája himself with the assistance of a Kárbhári and the advice of the Political Agent.

Season and Crops.

The rainfall was both sufficient and seasonable, and both kharif and varkas crops were good. Public health remained fair.

Police.

There was no change in the strength of the police force. The offences reported to the police were 60 against 47 in the preceding year, the number of persons arrested being 109 against 58, and that of persons convicted 44 or 50·50 per cent. The amount of the property alleged to have been stolen rose from Rs. 324 to Rs. 1,520 during the year under report, and the percentage of recoveries rose from 60·80 to 74·98.

Criminal Justice.

The number of persons dealt with by the Magistrates during the year under report was 367 against 391 or 24 less than in the previous year. Out of these 367, 205 were convicted, 158 acquitted or discharged and 4 remained under trial at the close of the year. There were 4 appeals filed. In two the sentence was confirmed, and in the remaining two it was modified.

Prisons.

The daily average number of prisoners in the jail was 13·11 against 11·61 in the previous year. The total cost of maintaining the jail was Rs. 375. There were no escapes from the jail. The health of the prisoners was generally good, but there were 8 deaths among them.

Civil Justice.

The number of suits filed during the year was 94. Adding the 38 suits of last year remaining over, the total number of suits for disposal was 132. Of these 113 were disposed of and 19 remained over. Out of the 5 appeals filed during the year and 2 of last year, 6 have been disposed of.

Registration.

The total number of documents registered during the year was 113 against 110 in the year before. The value of the property to which they referred was Rs. 20,847, and the fees realized amounted to Rs. 116.

Forests.

The revenue from forests decreased considerably as no sale of timber was made. Free grants of timber of the value of Rs. 750 were made to poor people.

The total outlay on public works was Rs. 34,573. The expenditure on water-supply alone amounted to Rs. 19,752, chiefly on the Surya tank. Rs. 13,408 were spent on repairs to roads and the balance mainly on sanitary improvements in the town of Jawhár. TRIBUTARY STATES. *Jawhár and Janjira.* Public Works.

The total revenue of the State amounted to Rs. 2,37,444 including deposits and recovery of advances, and the expenditure amounted to Rs. 2,86,716. The corresponding figures for the preceding year were respectively Rs. 1,88,400 and Rs. 2,07,734. The State had a balance of Rs. 94,601 at the end of the year against Rs. 1,43,873 in 1891-92. The amount of land revenue collections increased from Rs. 49,286 to Rs. 49,875. Revenue and Finance.

There was a dispensary at Jawhár maintained at a cost of Rs. 936. The number of patients treated during the year decreased considerably, *viz.* 2,301 against 4,407 in the previous year, owing to the absence of the medical officer on leave for two months. The total number of persons vaccinated was 2,112 against 1,800. The number of births and deaths registered gave a birth-rate of 30·81 and a death-rate of 19·41 per *mille.* Vital Statistics and Medical Relief.

The number of primary schools remained the same, *viz.* 10. The boundary disputes between four British villages and two Jawhár villages were settled during the year. Miscellaneous.

SOUTH KONKAN.

JANJIRA.

Area, 324 square miles; Population (1891), 81,780; Gross Revenue, Rs. 5,34,017.

Janjira or Habsán, that is, the Habshi's or African's land consists of two patches of land lying between the Indian Ocean and the Kolába Collectorate. The country consists of a net-work of confused fairly wooded hills between which creeks and backwaters wind inland. The chief products are rice, hemp, and betelnuts. The ruling family is of African descent, and appear to have come over to India in the fifteenth century. Establishing a reputation as skilful and daring sailors, they were appointed hereditary Admirals to the Bijápur kings and subsequently to Aurangzeb. On the decay of the Mogul power, after the latter's death, they took to piracy. During the whole of the eighteenth century they were continually at war with the Maráthas, who, though constantly overrunning the Janjira territory, were never able to capture the fort itself. In 1791 there was a dispute as to the succession of the throne; and the rightful heir, who had been dispossessed, appealed to the Peshwa. The latter granted to him a tract of land in the Surat district, now forming the Sachin State, in consideration of his making over to him all his claims to the throne. Notwithstanding this, however, the Peshwa was unable to conquer Janjira, and the State continued under the rule of its Chiefs until 1834, when the British Government declared Janjira to be subject to the British power and abolished the Janjira mint which was issuing a debased coinage. The country, however, continued in a very confused and backward state. There were bitter quarrels between the Nawáb and his Sardárs, which finally came to a head in 1870, when the latter, taking advantage of the Nawáb's prolonged absence in Bombay, broke into rebellion, seized the fort and placed the Nawáb's eldest son on the throne. On this the Bombay Government held an inquiry; after which they decided to restore the Nawáb, on his promising to reform his administration and police, and generally to accept the advice of the British Government. The Collector of Kolába was appointed Political Agent, and a special resident officer his Assistant. In 1877, however, troubles arose in the State again. There were riots among the Hindus and Musalmáns and quarrels between the Nawáb and his Sardárs. On this, the Political Agent, after enquiry ascertained that, while the police and criminal administration under the supervision of the Assistant Political Agent had progressed fairly, the administration of civil justice and of the finances was in great disorder. Government accordingly appointed a Kárbhári to manage the State. In 1879 the Nawáb died, and his son being a minor, the State was managed by the Assistant Political Agent until 1885, when the present Nawáb was entrusted with the administration. Since then the State has made great progress. Local Boards and Municipalities have been formed on British models; British laws and regulations have been brought into force in the State, and a system of survey settlement and forest conservancy is also in course of introduction. The chief town has been provided with water-works, which were opened by His Excellency the Governor on the 6th April 1892. General.

The season was on the whole a fair one. The rainfall was heavier than in the preceding year; but the late rains damaged both the varkas and rice crops to some extent, so that although the yield of crops was slightly larger than in the preceding year they were more or less spoilt. Season and Crops.

No progress was made in the declaration of survey rates. Classing work was completed in 72 villages. The cost of the survey during the year amounted to Rs. 3,025 against Rs. 402 last year. No complaints were received against the survey rates. Survey and Settlement

The Bombay Gambling Act I of 1890 was brought into force in some of the important towns. Legislation.

The total strength of the police remained the same as in 1891-92, *i. e.* 135. The cost of the police administration amounted to Rs. 14,501 against Rs. 18,852 in the preceding Police.

TRIBUTARY STATES. *Janjira and Sávantvádi.*

year. No crime of a serious or violent nature was reported. Out of 147 persons arrested by the police 128 were convicted. The alleged value of stolen property was Rs. 9,020 against Rs. 5,344 in the last year. The percentage of recoveries was 97 against 85.

Criminal Justice.

There were 3 cases pending before the Criminal Courts at the opening of the year under report. Three hundred and eleven new cases were brought to trial during the year, as against 266 in the preceding year, making a total of 314, of which 311 were disposed of by the Courts, leaving a balance of three cases at the end of the year. The number of persons involved in the cases was 701 against 550 in 1891-92, showing an increase of 151. Seventeen appeals were preferred against the decision of lower Courts. In two cases the sentences were modified, and in two they were reversed.

Prisons.

The daily average of prisoners in the jail was 18 against 14 in the previous year. One female prisoner escaped from the jail but was soon re-arrested. The health of the prisoners was generally good.

Civil Justice.

Out of 772 suits before the two Civil Courts of original jurisdiction 736 valued at Rs. 58,402 were disposed of. There were 64 appeals for disposal including the balance from previous year, all of which were disposed of during the year. Out of 1,208 applications for execution of decrees 1,157 were disposed of.

Registration.

The total number of documents presented for registration was 557 against 484 in the previous year. The aggregate value of the property comprised in the documents presented for registration was Rs. 2,52,573 against Rs. 1,48,132. The net profit from registration was Rs. 1,363 against Rs. 2,017 of the preceding year; the decrease being due to the introduction of the fee table obtaining in British territory.

Forests.

There was no change in the forest establishment. The total revenue from forests amounted to Rs. 56,065 against Rs. 62,144, showing a decrease of Rs. 6,079. The expenditure increased from Rs. 7,942 to Rs. 8,328. The value of free grants of timber made to people, whose houses were destroyed by fire, amounted to Rs. 1,483 against Rs. 2,182 in the previous year. The number of forest offences decreased from 500 to 388; and the number of persons dealt with from 2,746 to 2,242. Three forest fires were reported, the area burnt being 46 acres.

Trade.

The value of imports rose from Rs. 3,84,512 in the previous year to Rs. 3,89,087 during the year under report. The value of exports, however, diminished from Rs. 4,77,846 to Rs. 4,04,652 *i. e.* nearly 15 per cent. The decrease in export was chiefly in rice and hemp, articles which were damaged by the excessive rainfall and therefore did not command a good price.

Public Works.

The total amount spent on public works amounted to Rs. 63,641, against Rs. 53,582 in the preceding year. The Victoria water-works were completed during the year. One travellers' bungalow, 3 school-houses and a custom-house were constructed. Four roads were constructed and completed at a cost of Rs. 11,759.

Revenue and Finance.

The total revenue of the year (exclusive of deposits and advances) was Rs. 5,34,017 as against Rs. 5,55,041 of the previous year. The total expenditure of the year amounted to Rs. 4,42,633 against Rs. 4,32,460 in 1891-92. The closing balance amounted to Rs. 5,49,936 against Rs. 4,35,897 in the previous year. The State purchased Government promissory notes of the value of Rs. 2,75,000. The amount of land revenue for 1892-93 collected within the year was Rs. 1,82,020, as against Rs. 1,91,773 in the preceding year. The total outstanding balance of land revenue at the close of the year was Rs. 11,266, as against Rs. 13,646 in the preceding year.

A'bkári.

The system of abkári administration in force in the Bágáyat Division of the Alibág Táluka was continued with a few modifications. The total realizations of abkári revenue amounted to Rs. 67,628 against Rs. 54,506 in the preceding year. The expenditure under this head amounted to Rs. 13,906, against Rs. 12,505 in the year before. The consumption of country spirit was 9,430 gallons against 9,341 gallons in the preceding year.

Vital Statistics and Medical Relief.

The number of births registered during the year was 2,529 against 2,356 in the previous year and the number of deaths 1,737 against 1,602. The number of dispensaries remained the same. Two thousand nine hundred and sixty-four persons were vaccinated against 2,967. Rs. 7,384 were spent on sanitation during the year. Of this Rs. 2,831 were spent by the Local Board in improving the water supply of different villages.

Education.

The number of State schools increased from 47 to 53 and the number of pupils from 2,392 to 2,784. The number of trained masters rose from 3 to 6 during the year. The cost of education was Rs. 13,628 as against Rs. 12,512 in the preceding year.

SA'VANTVA'DI.

Area, 926 square miles; Population (1891), 192,948; Gross Revenue, Rs. 4,12,903.

General.

The State of Sávantvádi is a small territory near the western coast of India, about 200 miles south of Bombay, and within the limits of that Presidency. It lies between the Collectorate of Ratnágiri on the north and Goa on the south. Of its early history nothing reliable is known, beyond the fact of its having been, from very early times, a possession of the Bhonsle family, to which the present Chief belongs. It came first into political and historical notice in 1675, when Khem Sávant succeeded to power and established the independence of the State, which up to that time had been feudatory, first of all to the Muhammadan rulers of Bijápur and subsequently to Shiváji, the founder of the

TRIBUTARY STATES. *Sávantvádi.*

Marátha empire. Khem Sávant was contemporary with Sháhu, Shiváji's grandson, and supported the latter in his contest with Kolhápur. In return for this Sháhu confirmed the Bhonsle family in their possessions in Sávantvádi. In 1729-30 the State first came into relations with the British Government, when, in consequence of the frequent piracies committed by the Habshis of Janjira, the British Government formed an offensive and defensive alliance with Phond Sávant, who had succeeded Khem Sávant, against the Habshis. Phond Sávant's reign did not, however, last long. His two eldest sons rebelled against him, and one of them was slain in a skirmish. Phond Sávant, thereupon overwhelmed with grief, resigned the gádi in favour of his grandson Rámchandra in 1738. The latter died in 1755, and was succeeded by his son Khem Sávant, who held the reins of government for forty-eight years. He died in 1803, leaving no male issue. Disputes consequently arose as to the succession to the vacant gádi. The rival claimants (two cousins of Khem Sávant, named Jyrám and Shrirám Sávant) had recourse to open hostilities, and the whole State was convulsed in a civil war. From this time until the year 1817 the history of the State is one of constant warfare, of attacks and reprisals, at one time with the Rája of Kolhápur, at another with the Nipánikar Desái, at another with the Portuguese troops, until in 1817 several powerful Sardars of the State gained complete mastery over it, and in defiance of the authority of the Sar Desái, divided the country between them and set to work to make inroads into the neighbouring territories, including the British, for the purpose of plunder. The British Government on this sent a force to the frontier to put a stop to these raids. The Regents, terrified by this step, surrendered and signed a treaty acknowledging British supremacy. This occurred in 1819. The same state of unrest, however, continued until 1838, when the British Government were compelled to interfere, to depose the ruling Chief and take the management of the State into their own hands. A Political Superintendent was appointed, and a military force known as the Sávantvádi Local Corps, under the command of British officers, and maintained at the expense of the State, was organized. This arrangement has been continued ever since. For the first few years under the new administration the country was not without some troubles, and on two occasions, between 1838 and 1845, the nobles of the State broke out into open insurrection. They were, however, soon defeated. Order was re-established, the ringleaders of the insurrections punished, and since then the country has been in a state of peace and quiet, making steady progress under the care of the several officers who, in succession, have been entrusted with the management of it. The present Chief is the Sar Desái Raghunáth Sávant Bhonsle *alias* Bába Sáheb, now 31 years of age, and succeeded to the gádi on the death of his father in 1869. Though carefully educated, however, he has developed habits and proclivities which render him absolutely unfit for the responsible position of a ruling Chief. It has consequently been found impossible to entrust him with the administration of his State, which remains in the hands of the Political Superintendent.

The relations of the Sávantvádi State with the British Government continued satisfactory throughout the year. Some hindrance was caused to traffic owing to the cessation of the Anglo-Portuguese Treaty. Difficulties arose in connection with the extradition of offenders escaping into Portuguese territory owing to the same cause. The important question of ferry rights, concerning which there was a dispute with the Portuguese Government, was still unsettled at the end of the year.

Season and Crops.

The rainfall was, at first, seasonable and crops promised well, but incessant and heavy rain in October caused considerable damage. The outturns of rice and hill crops were respectively 8 and 9 annas only.

Revenue Survey and Settlement.

The survey settlement of the town of Sávantvádi was completed and rates announced on 31st March 1893. The period of original tenure was extended to another 15 years under Government sanction. The adjudication of alienation cases was nearly finished, 3 only remaining undisposed of at the end of the year.

Military.

The Sávantvádi Local Corps, consisting of 400 men, maintained its efficiency. New lines with a good house for the Subhedár were taken in hand. The total expenditure during the year amounted to Rs. 54,751 against Rs. 58,467 in 1891-92.

Police.

The strength was reduced from 138 to 126, as the latter number was found to be sufficient. The total cost therefore decreased from Rs. 26,986 to Rs. 25,007. The number of offences in which the Police took action was 293, and that of persons arrested 316 against 284 and 246 respectively in the previous year. Of the 301 persons placed on trial, 181, *i. e.* 60·1 per cent. or nearly the same proportion as last year, were convicted. The property stolen amounted to Rs. 3,607 against Rs. 2,661, whilst that recovered to Rs. 2,149 against Rs. 1,270, the percentage rising from 47·73 to 59·6.

Criminal Justice.

There were in the State 9 Criminal Courts, including the Sessions Court. The number of cases disposed of by them amounted to 626, involving 1,069 persons, against 620 with 1,052 persons last year. The result was that 578 persons were acquitted and 478 convicted. The percentage of convictions to persons tried was 44·7 as against 36·7 the previous year. There were 100 appeals against 75. Sentences in 20 of these were reversed and in 26 were modified; four appeals were rejected, one was referred back and 5 appeals remained undisposed of at the close of the year.

Prisons.

There were one jail and four lock-ups in the State. The number of prisoners admitted in the jail was 95. Under-trial prisoners in lock-ups numbered 241 against 154. There were no deaths amongst them.

TRIBUTARY STATES. *Sávantvádi and Sátára Jághirs.*

Civil Justice.

The number of Civil Courts remained the same as last year, viz. 5. The number of suits disposed of was 1,770 (including 1,034 Small Cause cases) and 343 cases remained for disposal at the end of the year. There were 3,074 applications for the execution of decrees, of which 2,491 were disposed of, leaving a balance of 583, as against 564 in the previous year. Appeals were preferred in 139 cases. These, with the outstanding balance, amounted to 183; of which 143 were disposed of and 40 left at the close of the year. There were 81 second appeals, of which Government disposed of 31 by confirming the lower Court decrees in 22 cases, by amending in 3 and reversing in 2. There were 9 applications for revision in Small Cause cases, of which 5 were disposed of. The income of the Civil Courts amounted to Rs. 15,743 and expenditure to Rs. 16,786, or nearly the same as the previous year. The possessory suits including one outstanding from last year amounted to 145, of which 136 were disposed of.

Registration.

Out of 2,241 documents presented for registration, 2,220 were registered as against 1,903 last year. The receipts amounted to Rs. 7,954 and expenditure to Rs. 1,189, the net surplus being Rs. 6,765 against Rs. 5,199.

Municipality.

The only Municipality was one at Sávantvádi with an income of Rs. 5,346. The water works for the town were completed during the year.

Forests.

The area under forest (both reserved and protected) was 42,987 acres and 26 gunthás, the net decrease of 180 acres and 37 gunthás being due to the exclusion of area erroneously included heretofore. Thirty persons were prosecuted for forest offences, of whom 19 were convicted and 7 acquitted. Four remained for disposal. Besides these 155 petty cases were compounded. The receipts amounted to Rs. 33,418 and expenditure to Rs. 16,936, leaving a surplus of Rs. 16,482 against Rs. 14,079 last year.

Trade and Manufacture.

There is very little to record in this connexion, imports and exports being practically the same as last year.

Public Works.

The total amount spent on these works amounted to Rs. 1,17,388 against Rs. 96,494, or Rs. 20,894 more than in the previous year. The water supply for Sávantvádi was the principal work in hand; Rs. 52,625 were spent during the year on this alone.

Revenue and Finance.

The year opened with a balance of Rs. 2,75,333. Receipts during the year amounted to Rs. 4,12,903 and expenditure to Rs. 4,42,643 as against Rs. 4,37,584 and Rs. 4,47,527 respectively. The decrease in receipts was nominal, caused by exclusion of the amount of revenue on alienated lands under the new form of accounts lately introduced. The excess expenditure over the revenue of the year was mainly due to the large expenditure on water works, and was met from last year's balance.

Local Funds.

The opening balance was Rs. 16,293, which, with the year's income of Rs. 46,507, amounted to Rs. 62,800. Of this Rs. 53,116 as against Rs. 43,570 were spent in maintaining dispensaries, roads, schools and other buildings, and a balance of Rs. 9,684 was left at the close of the year.

A'bkári.

The Abkári department was conducted on the same principles as that in force in the neighbouring British districts. The total realizations amounted to Rs. 34,956 against Rs. 36,407. The decrease of Rs. 1,451 was due to a fall in amounts bid for the right to sell liquor, which was however covered to some extent by a rise in the rates of tree tax. There were 47 offences against the A'bkári Act; of which 24 were cases of smuggling liquor from Goa territory. Special precautions were found necessary to guard against smuggling from Portuguese territory.

Stamps.

The revenue realized under stamps amounted to Rs. 24,674 or nearly the same as in the previous year.

Vital Statistics and Medical Relief.

The number of patients (both in-door and out-door) amounted to 13,187 against 15,077. There were 32 lunatics and 40 lepers treated during the year. The births and deaths registered were 6,451 and 4,191 as against 6,747 and 3,847 in 1891-92. The ratio per mille were 33·1 and 21, as against 34·9 and 19·9 respectively. The general health was fairly good. The number of vaccinations amounted to 6,531 as compared with 6,350 last year. The total expenditure under this head was Rs. 18,357 or Rs. 1,120 more than in 1891-92.

Education.

The number of schools (both State and private) rose from 170 to 175 and that of students from 5,618 to 5,789, of whom 441 were girls. There was 1 English school, and 4 English classes attached to Vernacular schools. The total income of the department amounted to Rs. 28,124 and expenditure to Rs. 31,506 (including Rs. 3,544 on account of buildings).

Miscellaneous.

The Telegraph and Post offices continued to prosper. The money order business largely increased during the year under report.

THE DECCAN.

SATA'RA JA'GHIRS.

Sátára Jághir.

The Sátára jághirs were formerly under the Sátára Ráj and became tributaries to the British Government on the lapse of that territory in 1849. They were originally six in number, *viz.* Bhor, Phaltan, Aundh, Jath, Akalkot and Daphlápur. Of these Phaltan and Aundh are now under the political control of the Collector of Sátára: Bhor was transferred from the Sátára to the Poona Agency in 1887: Akalkot is under the charge of the Collector of Sholápur; and Jath and its dependency Daphlápur were on account of the

The survey operations are still in progress, but no one táluka has yet been finally disposed of. The strength of the police is 184, besides 30 savárs in the Huzur Págá who aid as mounted police. The police arrested 150 persons, of whom 133 were convicted, and more care is taken in making arrests. 36 per cent. of the property stolen was recovered. The 7 Criminal Courts dealt with 988 persons, convicted 205, and left 14 untried. The offences are trivial, with the exception of 1 murder and 1 robbery. The Chief himself sitting as a Sessions Court convicted 9 persons, and disposed of 22 appeals. 91 persons were sent to jail. Crime.

The 3 Civil Courts decided 1,183 suits, and left 302 on the file, and the Chief heard 40 appeals. 318 documents were registered. There is no municipality, but a committee of 5 officers supervise sanitary arrangements on which Rs. 1,639 were spent. The demarcating officer selected all the lands required for forests in the remaining 63 villages, thus finishing the work in the Vichitragad Táluka. Land was also taken up in 90 other villages, but the Chief hesitates to give a final sanction to the demarcation pending the survey of the country. Civil Courts.

The actual revenue was Rs. 4,95,000 and the expenditure Rs. 4,88,000. The collections of local funds amounted to Rs. 31,000, which appears to have been spent on local objects, and the Chief asserts that he spent Rs. 21,000 from state funds on a school and in assistance to the sanitation of the town. Public Works.

The number of births was 2,450 and deaths 1,653, and the patients treated at the dispensary were 1,045. A native physician is also entertained. 2,267 persons were vaccinated. The number of schools is 27 and the scholars 923, a satisfactory progress having been made of late years, especially in the number of girls under tuition. Vital.

PHALTAN.

Area, 397 square miles; Population (1881), 58,402; Revenue, Rs. 2,09,000.

Chief is said to hold his lands under a grant made by the Emperor of Delhi in 1327. ent Chief, or Nimbalkar as he is styled, being much involved in debt applied to Go- for a loan, and offered to resign the management of the state until the debt is and the affairs of the state reduced to order. The offer was accepted, and Joint Admi- were appointed in December, 1882,—one being the son of the Chief and the other a officer of the British Government. They began their duties with an empty treasury, but after a few months were able to show a small balance, having instituted many reforms and paid off Rs. 25,000 on account of debt. The debts amount to 2¼ lákhs, and an arrangement is being negotiated to borrow the money from the Bank of Bombay and pay off the creditors at once, which will cause a large saving in interest. The bank debt will then be discharged by annual instalments of about Rs. 25,000, and it is expected the state will be finally free from debt in thirteen or fourteen years.

The first care of the Administrators was to re-organize many of the departments which had been allowed to fall into a state of inefficiency from a want of method or of properly paid officials. The pay of the police has been raised, and the civil, criminal and revenue work of the Rám Sawasthán State has been resumed by the Darbár. The administration is being brought into accord with the system followed in British territory, and the Deccan Agriculturists' Relief Act has been introduced to give the cultivators the same protection as in Poona or Sátára.

The state was surveyed in 1869-70, and the assessment is in force, but there is a good deal of waste land consequent on the emigration during the famine. This is being gradually recultivated as occupants and cattle are found. Survey.

The Chief made a grant of 6 villages, with all their revenues, in favour of a temple which he had built at great cost, and the managers of the temple took upon themselves all revenue as well as civil and criminal powers. These state functions have now been resumed as above stated, and it is found that the revenue of the year applied to this endowsment was over Rs. 47,000. Rám Sawasthán.

The strength of the regular police is 52 men, besides 43 rakhvaldárs who guard the public buildings in Phaltan and generally assist the police. The Chief had put on a tax, called a "debt cess", of 2 annas in the rupee on the pay of the police as well as all his servants to assist him in paying off his own debts, but this levy has now been stopped. The police arrested 259 men, of whom 77 only were convicted: their practice appears to have been to arrest all persons named by the complainant on mere suspicion, and to send them up to the Magistrates before they could be discharged. They recovered 59 per cent. of the property stolen. The Courts dealt with 560 persons and convicted 194, leaving none under trial. Except a few cases of cattle-lifting and house-breaking there have been no serious offences, and the people are reported to be well-behaved, sober and regular in their habits. The Sessions Court is presided over by the Joint Administrators. There is a serviceable jail, into which 47 persons were admitted. Civil prisoners were confined in a separate apartment of this jail, but have now been removed to a distinct building; it appears, however, that the introduction of the Agriculturists' Relief Act has tended to diminish the number of civil prisoners. Crime.

TRIBUTARY STATES.

Sátára Jághira.

Civil Justice.

The 3 Civil Courts disposed of 1,055 suits and left 103 in arrear: the bulk of the business consists of suits for the recovery of small debts. 110 appeals were decided, and about half the decisions was confirmed. 271 documents were registered, and several offices will now be opened in connection with the Agriculturists' Relief Act.

Municipality.

The municipality of Phaltan was established in 1868, and the income is levied by a graduated tax as well as by a sixteenth of the pay of the state servants. Three-fourths of the export and import duties were also granted, but the amount has been withheld by the Chief of late years. The income amounted to Rs. 5,800, and Rs. 4,800 were spent on vaccination, police, road-side trees, sinking a well, &c. The streets are well kept and clean, and the road round the town well shaded by trees. The taxation is 2 annas 1¼ pies per head.

Manufactures.

The principal manufactures are cotton and silk piece-goods, silk, and stone idols. Annual fairs are held at Phaltan at the Rám Jatra and also at Jávli. Public works have been made from local funds, but the state will now bear its share, and a dispensary is already under construction. The projected West Deccan Railway will pass through a part of the district.

Revenue.

The actual receipts amounted to Rs. 2,09,000, the expenditure to Rs. 1,83,000. A'bkári and salt have been taken over by the British Government, and an annual payment is made to Government of Rs. 9,600 on account of savárs. Rs. 4,300 were spent in education and Rs. 2,900 on public works. A toll has been put on the Adarkhi Ghát on which the state had previously spent over Rs. 17,000.

Vital.

The number of births was 1,905 and deaths 1,584, and public health has been good. 1,545 persons were vaccinated, and a good deal of prickly-pear bushes has been cut down. There are 16 schools—1 having been closed, and the number of scholars is 719. English is taught at Phaltan.

AUNDH.

Area, 213 square miles; Population (1881), 58,916; Revenue, Rs. 350,000.

This state comprises a number of scattered villages in Sátára under the rule of the Pant Prithinidi, or viceroy, a title held by several Marátha Chiefs, and made hereditary in the family of this Chief.

Crime.

The survey has been introduced into 22 khálsa and 4 co-shared villages in A'tpadi; rates will be levied from the next year. The strength of the police is 52 men and [illegible] sandis, besides village watchmen. They arrested 182 persons, of whom 58 were convicted; shows a little more care. 461 persons were dealt with by the 13 Criminal Courts, [illegible] were convicted, leaving 17 under trial; there was only one appeal, and the decision was [illegible]. The more serious offences committed were a few cases of robbery and house-breaking, but little violence was used, and the amount stolen was inconsiderable. About 92 per cent. of the property stolen was recovered. There is a jail at Aundh and 7 subordinate jails in the outlying villages into which 78 persons were admitted.

Civil Justice.

There are 6 subordinate Courts which decided 341 suits, 137 being *ex parte*, and the Appellate Court decided 29 appeals. There seems to be some delay in the procedure of these Courts. The rayats of Kundál petitioned the Governor to have the Agriculturists' Relief Act applied to them, and this has been done by the Chief. 22 suits have in consequence been brought for the recovery of mortgaged property. 213 documents were registered.

Vital.

On the appearance of cholera, medicines were supplied from the dispensary at Aundh, and special measures were taken to ensure cleanliness. There were 2,309 births and 1,138 deaths. 2,460 patients were treated at the dispensary, and 1,085 children vaccinated. There are 19 schools with 736 scholars. Roads and tanks were built from local funds at a cost of Rs. 5,100, and the Chief excuses himself from spending state money on works, owing to the marriages of his two sons. The income of the state appears to have been about 3½ lákhs and the expenditure 2½ lákhs.

JATH.

Area, 885 square miles; Population (1881), 49,486; Revenue, Rs. 2,80,000.

Owing to mismanagement this state has been under British management since 1874. The land is poor and thinly populated, and offers special facilities for cattle-breeding.

The survey was introduced in 1878-79, and has been of great benefit to the people by sweeping away a number of arbitrary cesses. The rates are very moderate, and cultivators apply freely for land even in a season of very low prices; but, when the railway is brought near, these lands will, no doubt, become very valuable and profitable to the holders. The area of unoccupied land is still large, but 3,000 acres were taken up for cultivation during the year, and a large part has been reserved for forest. The recovery of late has been rapid, but the condition of the country is still not quite what it was before the famine.

Crime.

The police force has been re-organized during the year, and the strength is now 61 men. They arrested 66 persons, and only 22 were convicted, and they recovered 47 per cent. of the property stolen. There are 4 Criminal Courts, and they tried 70 cases. The jail is at Jath into which 35 prisoners were admitted who are employed in the jail garden.

Civil Justice.

The Civil Courts disposed of 195 suits, 46 being decided on their merits. 9 appeals were preferred, and the Appellate Court decided 7. 92 documents were registered, and an increase is

continued mal-administration of its Chief placed under the management of the Political Agent, Kolhápur and Southern Marátha Country, in 1891. With the exception of Jath the administration of their several jághirs is generally in the hands of the Chiefs themselves, with the exception of the more serious criminal cases, which are tried by the Political Agents with the assistance of assessors. TRIBUTARY STATE *Sátára Jághirs.*

BHOR.

Area, 1,491 square miles; Population (1891), 155,669; Gross Revenue, Rs. 3,59,100.

The Chief of Bhor, Shankarráo Pandit Pant Sachiv, is a Bráhman lineally descended from Shankráji Náráyan, Minister or Pant Sachiv to Rájárám, son of Shiváji, who in 1697 conferred the jághir of Bhor upon him in return for valuable services rendered. The State is for the most part covered with hills; and the only material resources which it can be said to possess are agriculture and forests. The administration is carried on by the Chief himself with the assistance of the State Kárbhári. During the year under report he made his usual tour in the month of December, and himself carried out the jamábandi settlement of four tálukas. General.

Survey operations made no advance during the year. Out of 494 villages there were still 275, that is, the same number as last year, in which survey rates had not yet been introduced. Survey and Settlement.

The Chief made an addition to his police force of 9 Constables, thus raising the number to 215. The cost of the force amounted to Rs. 22,287 against Rs. 16,578 in the preceding year. During the year under report the rates of pay of all grades of the force were raised. The police had to deal with a total number of 318 cases as against 457 last year, of which 11 were referred to them by Magistrates for investigation. In these cases 209 persons were apprehended and the same number were sent for trial, of whom 71 were convicted and 138 acquitted or discharged. The percentage of convictions to arrests was 33·97. The figures compared favourably with those of the preceding year, 28·75. The value of property stolen was Rs. 2,297 as against Rs. 13,477 in 1891-92, and of that recovered Rs. 1,748 or 76 per cent as against 69·1 in the previous year. During the year under report no crime of a serious nature, such as murder or dacoity, occurred. Police.

The total number of cases reported during the year was 611 involving 827 persons. Of these 587 were acquitted or discharged, while 213 were convicted, 20 committed and 7 remained to be disposed of at the end of the year. The ratio of convictions was 22·9, while that of acquittals and discharges was 72·6. The Chief disposed of 19 appeals involving 32 persons, out of which in 9 instances he modified or reversed the convictions. Criminal Justice.

Ninety-nine persons were confined in the jail as against 92 in 1891-92. The cost of the jail was Rs. 2,931, as against Rs. 2,850 in the preceding year. Prisons.

Including arrears there were 1,269 original suits on the files of the three Civil Courts in the State as against 1,396 in 1891-92; of these, 1,160 were disposed of, leaving a balance at the end of the year of 109. There were 76 appeals, 73 of which were disposed of. Out of 2,131 applications for the execution of decrees, 1,841 were disposed of, leaving a balance of 290 as against 266 in 1891-92. Civil Justice.

Five hundred and forty-seven documents of the value of Rs. 1,73,561 were registered during the year against 478 documents of the value of Rs. 1,45,439 in the previous year. The amount of fees realized rose from Rs. 1,436 to Rs. 1,617, while the cost of registration decreased from Rs. 638 to Rs. 568. Registration.

There were two Municipalities in the State, one at Bhor and the other at Shirwal. Including the opening balance, their joint income came to Rs. 7,187 and their expenditure to Rs. 5,534. Municipalities.

The strength of the Forest Department was increased by seven men during the year, and the Indian Forest Act was introduced into the State during the year under review. There were 12 forest cases involving 31 persons during the year as against 15 in the previous year. Forests.

The receipts of the year were Rs. 3,59,100, while the expenditure was Rs. 3,79,609; the expenditure exceeded the receipts by nearly Rs. 20,509. In the preceding year the receipts and expenditure were Rs. 3,76,960 and Rs. 3,54,192. The increase in expenditure was chiefly due to expenses incurred in connexion with the marriage of the Chief's son. The expenditure on public works was Rs. 34,816 as against Rs. 42,016, the amount spent on original works especially on the construction of roads, being less than last year. Revenue and Finance.

The number of births registered during the year was 4,282 as compared with 5,224 in 1891-92, and the number of deaths 3,438 as compared with 3,638. These figures, however, cannot be said to be very trustworthy owing to the defective method of registration. The attendance of patients at the dispensary at Bhor was 19,899 as against 2,821 of last year. The appointment of a Licentiate of the Grant Medical College has greatly improved the state of the dispensary. The cost of maintaining the institution was Rs. 2,963 against Rs. 704 in the previous year. Five thousand five hundred and forty-nine persons were vaccinated against 5,093 in the previous year. Vital Statistics and Medical Relief.

There were 38 Maráthi, 1 Hindustáni and 1 English school in the State. The number of male pupils fell from 1,425 to 1,389, and of female pupils from 178 to 147. Education.

TRIBUTARY STATES.
Satára Jághirs.

PHALTAN.

Area, 397 square miles ; Population (1891), 66,383 ; Gross Revenue, Rs. 2,48,289.

General.

This is a petty State lying between the Poona and Sátára Collectorates. The Chief is a Marátha, and holds his lands under a grant from the Emperor of Delhi in 1327. In 1882 the Chief, being much involved in debt, applied to Government for assistance, offering to resign the management of the State until the finances were brought into order. The offer was accepted, and Joint Administrators, one the son of the Chief and the other a Revenue officer lent by the British Government, were appointed. The Administrators borrowed a sum of Rs. 2,25,000 from the Bank of Bombay on the security of Government, repayable by instalments of Rs. 25,000, and set to work to pay off the various creditors. They also reorganised many of the departments of the State, raised the pay of the police, and introduced the Dekkhan Agriculturists' Relief Act. They continued in charge until 1885, when the Chief was again entrusted with the management of the State, which he has held ever since. The State is still in debt to the extent of Rs. 95,949, but this is being paid off by regular annual instalments.

Season and Crops.

The rainfall (41·26 inches) was considerably above the average, and the outturn of all crops, especially that of jowári, the staple grain, was larger than usual.

Police.

The police force numbered 86 men and their cost was Rs. 9,119, as against Rs. 6,445 in 1891-92. The number of offences reported to the police was 134. Seventy-three persons were arrested and 67 sent for trial ; of these, 56 were convicted. The percentage of conviction to arrests was 76·7 as against 77·5 in 1891-92. The value of property stolen was Rs. 2,310 and of that recovered Rs. 837 ; the percentage of recoveries being 36·28 as against 44 last year. There was one murder only during the year.

Criminal Justice.

The number of Criminal Courts in the State was five ; and the number of offences brought before them including arrears was 151, involving 199 persons. Of these cases 138 were disposed of. In the previous year the number of offences was 153 and that of persons involved 221. Of the 199 accused, 76 were convicted and 114 discharged. Five appeals were preferred before the Jághirdár, in three of which the decisions were confirmed and in two modified.

Prisons.

There were nine prisoners in the State Jail at the beginning of the year and 41 were subsequently admitted, bringing the total to 50 ; the cost of maintenance rose from Rs. 660 to Rs. 725.

Civil Justice.

The total number of original suits on the files of the two Civil Courts in the State was 246 ; of these, 218 were disposed of, leaving a balance of 28 only as against 135 in the previous year. The value of property involved was Rs. 29,934. There were in all 119 appeals to be dealt with by the Jághirdár as against 68 in the previous year ; of these, 95 were disposed of, leaving a balance of 24 as against 20 in the preceding year. Out of 625 applications for execution of decrees 523 were disposed of, leaving 102 outstanding against 138 at the close of the year before.

Registration.

The number of documents registered during the year was 3,691, affecting property valued Rs. 2,83,065, as against 4,675 documents affecting property valued Rs. 3,59,790 in 1891-92.

Municipalities.

There was only one Municipality in the State, that at Phaltan. The receipts, including the opening balance, amounted to Rs. 8,603, and the expenditure to Rs. 7,006.

Public Works.

The expenditure on public works amounted to Rs. 8,095, as against Rs. 16,910 in 1891-92. Of this amount, Rs. 1,421 were contributed by the State and Rs. 6,674 by Local Funds.

Revenue and Finance.

The opening balance was Rs. 20,090. The receipts amounted to Rs. 2,48,289, and the expenditure to Rs. 2,29,435, as against Rs. 3,11,683 and Rs. 3,17,737 in the preceding year. The decrease in both revenue and expenditure was merely nominal, being due to an improved method of keeping the State accounts, which rendered certain large adjustments unnecessary. The balance at the end of the year was Rs. 38,944 as against Rs. 20,090 in the previous year.

Vital Statistics and Medical Relief.

There was one dispensary at Phaltan maintained at a cost of Rs. 1,701. The total number of patients treated was 8,657. The number of births and deaths registered in the State was 2,115 and 1,508 as against 2,344 and 1,544 in the previous year. The number of vaccinations was 2,198 as against 2,350 in 1891-92.

Education.

There were 21 schools in the State with 757 pupils as against 20 schools with 720 pupils last year. The expenditure on education was Rs. 4,410.

AUNDH.

Area, 447 square miles ; Population (1891), 65,146 ; Gross Revenue, Rs. 3,41,734.

General.

This State consists of 72 villages scattered through the Sátára Collectorate. The Chief, who is a Bráhman and enjoys the title of Pant Pratinidhi or Viceroy, traces his descent from a minister of Rájárám, the son of Shiváji, by whom the lands forming the State and the title were conferred in return for services rendered. The Chief has himself administered his State for many years with the assistance of two of his sons.

The rainfall during the year was above the average, and the outturn of the crops was good on the whole. TRIBUTARY STATES. *Sátára Jághirs and Akalkot.*

Of the 72 villages in the State, revised survey rates have been introduced in 32 and measuring operations completed in 18. Twenty-two villages still remained to be measured and assessed. Survey and Settlement.

The police force numbered 68 as against 66 in the previous year. The cost of its maintenance was Rs. 9,760. The number of offences reported was 189 as against 285 in 1891-92. The number of accused arrested and sent for trial was 160 and 157 and that of convictions 85. The percentage of convictions to arrests was 61 as against 59 in the preceding year. The value of property stolen was Rs. 1,584 and of that recovered Rs. 1,156; the percentage of recoveries was 73 as against 52 in the previous year. Besides the regular police, there was a force of 91 shetsandis, remunerated partly by cash and partly by grants of land, and 46 sibandis, who gave assistance to the police in various ways. Police.

There were 11 Criminal Courts in the State, which dealt with 249 cases involving 452 persons as against 305 cases involving 469 persons in the preceding year. Of the 452 accused 262 were convicted; the percentage of convictions to accused brought to trial was 73·3 as against 60·4. There were 8 appeals for disposal; the sentences were confirmed in five cases, modified in one, and reversed in two. Criminal Justice.

There was one jail at Kinhi and 4 lock-ups at táluka stations. Ninety-three prisoners were confined in the jails during the year against 97 in 1891-92. The total cost under this head was Rs. 2,256 as against Rs. 1,954. The increase was due to the construction of a new jail building. Prisons.

There were 55 suits undisposed of at the beginning of the year, and the number of those filed during the year was 315, making a total of 370 as against 291 in the previous year. The three Civil Courts disposed of 330 cases, leaving 40 still to be dealt with at the close of the year. The value of the claims involved was Rs. 31,929. There were 39 appeals on the files of the Appellate Court; all of which, with one exception, were disposed of. Out of 309 applications for the execution of decrees, 275 were disposed of, leaving a balance of 34. There were 54 suits under the Mámlatdárs' Courts Act, 53 of which were disposed of. Civil Justice.

The number of documents registered during the year was 350 and their value Rs. 87,789. The fees realized amounted to Rs. 760 as against Rs. 539 in 1891-92. Registration.

Rs. 8,559 were spent on public works during the year as against Rs. 6,390 in the previous year. Public Works.

The gross revenue of the Aundh State for the year ending 5th June 1893 was Rs. 3,41,734 as against Rs. 3,10,898; the total expenditure amounted to Rs. 2,73,715 as against Rs. 2,64,112 in the preceding year. The closing balance was Rs. 67,482; and the outstandings were Rs. 43,954. Revenue and Finance.

There were two dispensaries maintained at a cost of Rs. 1,567; the number of patients treated was 7,855. The number of births and deaths registered during the year was 2,602 and 1,755 as against 2,502 and 1,904 in 1891-92. The number of vaccinations was 2,671 as against 2,414 in the preceding year. Vital Statistics and Medical Relief.

There were in all 26 schools with 969 pupils as against 27 schools with 1,032 pupils last year. Education.

AKALKOT.

Area, 498 square miles; Population (1891), 75,774; Gross Revenue, Rs. 2,81,948.

As stated above, Akalkot was originally one of the six Sátára Jághirs which lapsed to the East India Company on the annexation of Sátára in 1849. The Chief was deposed in 1866 on account of his mal-administration, and from that year up to 1891 the management of the State was carried on by the Assistant Collector, Sholápur, under the supervision of the Collector of Sholápur as Political Agent. In November 1891 the Chief was invested with full powers of administration and has since that year had entire management and control of his State. He is a Marátha by caste, and ranks as a first class Sardár of the Deccan. General.

The total rainfall during the year under report was 48·27 inches against 21·65 in the preceding year. An unseasonable fall in March injured the rabi crop, but the kharif crop was above the average. Season and Crops

The total strength of the police was 59. The cost of their maintenance was Rs. 10,001 against Rs. 9,917 in 1891-92. A semi-military force of 49 men was also maintained at a cost of Rs. 4,418 against Rs. 4,951 in 1891-92. The number of offences reported to the police was 146 as compared with 208 in the preceding year. The number of accused arrested during the year was 125 against 142. Out of these 125, 66 were convicted and 59 discharged against 60 and 64 respectively in the previous year. The percentage of convictions rose from 42·2 to 52·8. The value of property reported to have been stolen was Rs. 4,731 against Rs. 6,119 in the previous year. The recoveries were Rs. 1,603 Police.

TRIBUTARY STATES. Akalkot and Kolhápur.

against Rs. 1,169 respectively. The percentage of recoveries of property stolen rose from 19·1 to 33·9.

Criminal Justice.

There were five Magisterial Courts at work in the State. The number of accused persons brought to trial was 414 against 548 in the previous year. Of these, 225 were convicted, 8 committed or referred and 180 were acquitted, 6 remaining untried at the close of the year. Nine appeals were presented and disposed of during the year. Sentences were reversed in 6 cases.

Prisons.

Seventy-six persons were confined in the jail against 67 in the previous year. The cost rose from Rs. 2,815 to Rs. 3,028. The general health of the prisoners was good, and there was only one death.

Civil Justice.

Including arrears, there were 463 suits for disposal against 508 in the year before. Of these, 423 were disposed of in the year against 484. Of 16 appeals 14 were disposed of. The number of applications for execution of decrees, including arrears, was 466, of which 382 were disposed of, leaving a balance of 84 against 58 in the preceding year.

Registration.

There were 810 documents of the value of Rs. 1,22,899 registered against 704 of the value of Rs. 1,09,612 in the year before. Registration receipts rose from Rs. 1,059 to Rs. 1,218.

Ds.

The area under forests was the same during the year as in the previous year, viz. 32,930 acres. The receipts and expenditure were respectively Rs. 6,501 and Rs. 2,490 against Rs. 4,878 and Rs. 2,576 in the preceding year.

Public Works.

The outlay on public works, including Local Fund expenditure, was Rs. 36,720 against Rs. 32,866 in the previous year.

Revenue and Finance.

The year opened with a balance of Rs. 1,34,598. The gross revenue and expenditure were respectively Rs. 2,81,948 and Rs. 3,03,624 during the year against Rs. 2,99,281 and Rs. 3,29,126 in the previous year. The closing balance was Rs. 1,12,922. The apparent decrease in income is due to the fact that a large sum of advances and deposits was recovered during the previous year.

Vital Statistics and Medical Relief.

There were 2,309 births and 1,255 deaths registered in the year under report against 2,641 and 1,958 respectively in 1891-92. The number of patients treated at the Akalkot Dispensary fell from 11,773 to 10,087 owing to a healthy season. The cost of the institution was Rs. 3,086 against Rs. 3,920. The number of vaccinations was 2,117 against 2,161.

Education.

There were 32 schools open during the year. The number of pupils on the rolls was 1,748 against 1,737 in the preceding year. The cost of education was Rs. 9,428 against Rs. 9,479.

KOLHÁPUR.

Area, 2,855 square miles; Population (1891), 913,131; Gross Revenue, Rs. 31,97,522.

General.

Kolhápur is, in point of population and revenue, the most important State under the political control of the Bombay Government. Situated between Sátára and Belgaum, it comprises portions of the old Hindu divisions of Mahárashtra and Karnátak, a distinction still marked in the language of the people, part of whom speak Maráthi and part Kánarese. The country is favourably situated, the land is often remarkably fertile, and a general failure of crops is unknown. The ruling family of Kolhápur trace their descent from a younger branch of the house of Shiváji. The ancient Hindu dynasty was subverted by the Báhmani, and when in 1498, the Báhmani kingdom was dissolved and the kings of the Deccan and its chief feudatories were elevated into the position of sovereign powers, the country fell to the share of Bijápur. In 1659, Shiváji in the course of his operations against the Mahomedans gained possession of the Kolhápur forts, which, though taken and retaken several times, remained in the possession of the Maráthas on the death of Aurangzeb in 1707. Kolhápur then became the scene of a struggle between the two branches of the descendants of Shiváji, which ended in 1730 by the younger branch retaining Kolhápur and abandoning all claims to the country to the north of the Várna and east of the Krishna. The Kolhápur Chiefs, subsequently to this, confined themselves to piracy, in which pursuit they gained such proficiency as to draw down the anger of the Peshwa and the British Government. The former, irritated by the robberies of the Kolhápur Chiefs and their intrigues with the Nizám of Hyderábád, established the powerful family of the Patvardhans on the eastern frontier of the State with a large "saranjám," with the object of keeping the Chiefs in check. The latter in 1765 sent an expedition against the State and captured Fort Málvan, which was only restored on payment of a heavy indemnity. From 1765 to 1812 the State was constantly embroiled in wars with the Peshwa, the Patvardhans and with Sávantvádi; the Peshwa taking first one side and then the other as it suited his policy. In 1812 the British Government stepped in and endeavoured to make peace between the Peshwa and his feudatories. The Kolhápur Rája, who was then in imminent danger from an attack by [illegible]ai of Nipáni, willingly came to terms, and agreed to cede Málvan to the British [illegible]rain from attacking foreign States without the consent of the British Government. The British [illegible]return guaranteed him against aggression from all foreign powers and States. This treaty, h[illegible]ver, though it secured external peace, did not prevent much internal misgovernment and [illegible]der, and matters finally culminated in 1844 in a local insurrection, which had to be st[illegible]d by a military force. After this, a special Political Agent was

TRIBUTARY STATES. *Kolhápur.*

appointed to the State, who pacified the people and brought the State into such good order, that in 1857-58, despite the fact that the native regiment stationed in Kolhápur mutinied and murdered their officers, the people did not join them. As a reward for his loyalty the Rája was in 1862 vested with the administration. He died however without issue four years afterwards. Government thereupon recognized his adopted son as heir to the throne; but he died also in 1870 while on a trip to Europe. His widows were allowed to adopt, but the boy, after careful training for eleven years, was found to have developed a mental malady quite unfitting him for the exercise of power. A Council of Administration was consequently formed, the Chief of Kágal being appointed Regent, and the Deván, Chief Judge, and Chief Revenue Officer members of Council. In 1883 the Rája died without issue. His widow was allowed to adopt, and selected a boy of 9, named Yéshwantráo Bábá Sáheb, son of the Regent Ábá Sáheb. This choice was approved of by the Bombay Government. The boy has since then been carefully educated, first at the Rájkumár College, Rájkot, and subsequently under the care of Mr. S. M. Fraser, I.C.S. He is now 19 years of age. The Council of Regency have continued to administer the affairs of the State, under the supervision and with the advice of the Political Agent.

Feudatory States.

There are several feudatories subordinate to the Kolhápur State, of which five are important. These are Vishálgad, Bávda, Kágal, Kápshi and Ichalkaranji.

Vishálgad.

The State of Vishálgad was managed by its Chief A'bájiráo Krishná, Pant Pratinidhi, throughout the year. The net revenue and expenditure amounted to Rs. 1,08,736 and Rs. 1,09,163, against Rs. 1,21,888 and Rs. 1,07,448 in the previous year. Expenditure on public works rose from Rs. 3,878 to Rs. 11,427.

Bávda.

The State of Bávda continued under the management of its Chief during the year. Revenue and expenditure were Rs. 99,992 and Rs. 1,07,282 against Rs. 1,10,451 and Rs. 1,00,414 in the previous year. Rs. 9,958 were spent on public works against Rs. 3,667 in 1891-92.

Kágal.

The Chief of the Kágal State, Pirájiráo Bápu Sáheb, is a minor and continued his studies under Mr. Fraser's care. The State was administered under the supervision of the Political Agent. The net revenue was Rs. 1,53,524 against Rs. 1,52,584 in 1891-92; while the expenditure was Rs. 2,65,487 against Rs. 1,38,206. Rs. 86,416 were spent on public works.

Kápshi.

The Jághir of Kápshi continued to be managed under the supervision of the Political Agent. The Jághirdár, Jayasingráo, is a minor and studying at the Rájárám College. The public revenue was Rs. 1,15,470 against Rs. 30,953, while expenditure was Rs. 53,332 against Rs. 36,703.

Ichalkaranji.

The Ichalkaranji State was managed by its Chief throughout the year. The revenue fell from Rs. 2,10,252 in 1891-92 to Rs. 1,96,748 in 1892-93; while expenditure rose from Rs. 2,23,245 to Rs. 2,52,570. Rs. 63,750 were spent on public works.

Season and Crops.

The rainfall was above the average, but very unequally distributed. The harvest was not therefore good.

Survey and Settlement.

The Kolhápur City Survey was proceeded with during the year. Thirty-one cases involving the settlement of alienated lands were disposed of during the year; and inquiries were held in 678 succession cases. There were nine wards' estates under the Darbár management.

Stock-breeding.

The State sheep-breeding and stud farms were worked satisfactorily during the year.

Military.

The military establishment of the State consisted of the Kolhápur Infantry and a body of horse called the Red Rissála. The strength of these forces was 547 and 149 respectively. Their cost was Rs. 95,033 and Rs. 57,741 against Rs. 74,338 and Rs. 71,776 in the preceding year.

Police.

The strength of the State police force (including feudatories) was 677 and the total expenditure Rs. 77,758. Six hundred and ninety-eight offences were committed during the year, against 644 in the preceding year. Six hundred and sixty-seven persons were arrested by the police of whom 658 were sent for trial. The percentage of convictions to arrests was 75·6 against 68·8 in 1891-92. The value of property stolen and recovered was Rs. 47,619 and Rs. 29,270 against Rs. 39,586 and Rs. 30,088.

Criminal Justice.

There were 38 Criminal Courts in the State. The number of cases for disposal rose from 2,331 to 2,687. Of these 2,581 were decided leaving 106 undisposed of. In all 6,420 persons were arrested. Of these, 2,770 were discharged, 1,612 were acquitted, 1,553 were convicted and 55 committed to the Courts of Session; the remainder 321 were awaiting trial at the close of the year. There were 7 Appellate Courts, which heard 149 appeals. Eight appeals were undisposed of at the end of the year. The number of Sessions Courts increased from 4 to 5. They disposed of 28 cases, convicting 13 accused and acquitting 35. One case was referred to the Council of Administration and 6 to the Bombay Government.

Prisons.

The number of jails increased from 14 to 16. The number of convicted and under-trial prisoners admitted into them was 1,738. The cost of maintenance amounted to Rs. 16,786.

TRIBUTARY STATES. *Kolhápur.* Civil Justice.

There were 20 Courts of original jurisdiction. They disposed of 3,790 suits out of 5,281 instituted, including 1,361 cases left over from the previous year. Fourteen hundred and ninety-one suits were undisposed of at the close of the year against 1,361 in 1891-92. There were 4,815 applications for execution of decrees for disposal, against 4,887 in the previous year; out of 4,815 applications, 3,588 were disposed of against 3,675 in 1891-92. There were 375 appeals, including the balance 85 from the previous year, for disposal, out of which 287 were disposed of, leaving 88 at the close of the year. In 141 cases the decisions were confirmed, in 61 reversed, in 17 amended, 37 were remanded and 31 were compromised. The Council of Administration disposed of 58 appeals out of 91 against 70 and 108 respectively in the previous year. There were 864 possession suits for disposal, out of which 832 were disposed of by the Mámlatdárs and Kárbháris. Applications for review were made in 49 cases; 38 were rejected and 5 referred to the Council of Administration.

Registration.

The number of documents presented for registration during the year under review was 7,075 against 6,753, of which 7,003 were registered. The entire receipts and expenditure of the department amounted to Rs. 35,250 and Rs. 6,097 against Rs. 32,888 and Rs. 5,848 respectively in the previous year.

Municipalities.

The number of Municipalities (8) remained the same. The income of the Kolhápur Municipality was Rs. 74,451 against Rs. 73,007 in the preceding year, and the expenditure amounted to Rs. 56,730 against Rs. 73,401. The aggregate income and expenditure of the other 7 Municipalities was Rs. 16,688 and Rs. 14,480 respectively in round numbers against Rs. 16,380 and Rs. 14,501 in the previous year.

Forests.

The quantity of hirda fruits sold by the forest department was 5,541 khandis against 8,268 in the preceding year, and the sale-proceeds amounted to Rs. 70,262 against the latter Rs. 1,28,764. The net profit to the State, excluding the cost of collecting, &c., was Rs. 54,036.

Public Works.

Rs. 5,48,464 were spent on public works, Rs. 4,00,703 on original works and Rs. 1,47,761 on repairs, against Rs. 5,94,516 in 1891-92.

Railways.

The gross income of the Kolhápur State Railway was Rs. 1,00,784 and the expenses were Rs. 62,036. The net earnings were thus Rs. 38,748.

Revenue and Finance.

The total gross receipts of the Kolhápur State proper during the year was Rs. 31,97,522 against Rs. 34,36,319 in the preceding year, and the total gross expenditure for the two years was respectively Rs. 33,02,194 and Rs. 33,37,463 including debts and deposits and other items under double heads. The net receipts for 1892-93 and 1891-92 were respectively Rs. 18,80,092 and Rs. 20,58,126 and expenditure for the same years was Rs. 19,36,918 and Rs. 19,07,581. The decrease of Rs. 1,78,034 in receipts was due to a diminished hirda crop, and the excess of Rs. 56,826 over the receipts in expenditure to the increased cost of Public Works and Educational Departments, and to compensation given on account of high prices of food-grains. The closing cash balance of the State at the end of the year was Rs. 15,78,194 in round numbers. Land Revenue demands were Rs. 12,41,646 against Rs. 11,73,962 in 1891-92; and collections were Rs. 11,45,539 against Rs. 11,44,871. The outstanding balance was Rs. 95,241 against Rs. 25,242. Sáyar revenue demands including outstanding balances from former years amounted to Rs. 1,82,186; actual collections to Rs. 1,37,722. The balance outstanding at the close of the year was Rs. 44,464. Local Fund collections aggregated Rs. 1,34,163; expenditure Rs. 1,37,481. Abkari revenue amounted to Rs. 1,14,301 against Rs. 1,25,637, the decrease being due to the high price of provisions. Opium sales aggregated Rs. 3,541. The sales of general and Court-fee stamps amounted to Rs. 35,795 and Rs. 49,698 against Rs. 36,860 and Rs. 51,031 in 1891-92. Toll receipts were Rs. 33,221 against Rs. 34,771 in 1891-92.

Vital Statistics and Medical Relief.

There were 13 dispensaries, in all, open. The total number of out-door and in-door patients treated in them was 147,593 against 140,931 in the preceding year. The number of patients treated in the Albert Edward Hospital was 40,367 against 39,552 in the previous year. There were 13 lunatics treated at the asylum against 38 in the previous year. The number of births and deaths during the year under report was 29,914 and 23,686 against 32,646 and 22,733 in the previous year. The number of persons vaccinated during the year was 34,185 against 33,318 in the preceding year.

Education.

The total number of schools was 215 against 214 in the previous year. The aggregate attendance in them rose from 13,697 to 15,063. Income from fees and fines amounted to Rs. 28,576 against Rs. 23,252 in 1891-92, while expenditure incurred on them amounted to Rs. 1,48,949 against Rs. 1,30,460. There were 59 students at the Rájárám College. Fifteen candidates out of 19 sent up for the B.A. Examination were successful. The attendance at the high school was 400 against 445 in 1891-92. Fifty-six boys were sent up for Matriculation, of whom 41 passed, two of them winning University scholarships. The technical school had 50 pupils on its books. There were 4 low caste schools with an attendance of 158. Eighteen students attended the Training College for schoolmasters. An industrial museum was opened during the year.

Miscellaneous.

The annual horse and cattle-shows were held at Chinchli during the year and were opened by His Excellency the Governor. The exhibits were numerous, and the show was a great success.

TRIBUTARY STATES.

Southern Marátha States.

Southern Marátha States generally.

SOUTHERN MARATHA STATES.

The following States comprise the subordinate charge of the Assistant Political Agent, Southern Marátha Country; their area, population and gross revenue are also shown:—

Name of State.	Area in square miles.	Population.	Average per square mile.	Gross Revenue.
				Rs.
Sángli	1,083	238,945	220	11,91,836
Miraj (Senior)	339	88,343	260	3,38,402
Miraj (Junior)	225	35,487	157	2,42,018
Kurundvád (Senior)	174	43,809	251	1,39,379
Kurundvád (Junior)	134	32,528	242	1,33,817
Jamkhandi	555	102,162	184	4,54,385
Mudhól	361	61,815	171	2,08,565
Rámdurg	169	36,181	214	1,51,882
Jath	979	71,443	81	1,68,826
Daphlápur		8,343		16,954
Total ...	4,019	719,056	178	30,46,064

Of these, six are administered by their respective Chiefs. Of the others, the Chiefs of Miraj Junior and Rámdurg are minors; their States are managed by Kárbháris under the orders of Government. Jath is managed by an Administrator appointed by Government under the direct control and supervision of the Political Agent, Southern Marátha Country. The small estate of Daphlápur is administered by the Ránibái Sáheb. The territories of the respective Chiefs consist of a number of isolated patches scattered through and around the British collectorates of Sholápur, Poona, Dhárwár and Belgaum. The language is Maráthi, although Kánarese is also spoken. A particular account of each State follows.

SÁNGLI.

General.

The Chief of the Sángli State and those of Miraj, Kurundvad and Jamkhandi are all members of the Patvardhan family. Their ancestor Govindráo received the territories now comprised in their States as a saranjám from the Peshwa in 1763. During the closing years of the century, the family took an important part in the wars of the Maráthas against Hyder Ali and Tipu of Mysore and also against the English. In 1802, however, dissensions arose between them and the Peshwa, and during the next nine years they were in a state of open rebellion against him. On his preparing however in 1811 to crush them, the British Government interfered and put an end to the quarrel by guaranteeing them in the enjoyment of their lands as long as they served the Peshwa faithfully, a condition which they promised to observe. Subsequently, however, war broke out between the English and the Peshwa, which ended in the latter's overthrow. On this further treaties were made with the various Chiefs by which they were to be taken under the protection of the British Government and in return to supply contingents of men for service when required to do so. Chintámanráo, the Chief of Sángli, however, refused to serve the British Government, and was allowed instead to cede territory with an annual rental of Rs. 1,35,000. He subsequently, during the insurrection in Kolhápur 1844, rendered cordial assistance to the British. He died in 1851 and was succeeded by his son Dhundiráo. Owing to the latter's maladministration a British officer was appointed as Joint Administrator with the Chief in 1873. This arrangement lasted till December 1887, when the Chief was reinvested with full powers of administration. He now manages his State satisfactorily with the assistance of a Kárbhári.

Season and Crops.

The monsoon began early and was on the whole favourable. The outturn of crops, especially the kharif, was good.

Wards' Estates.

There were 20 wards' estates under the management of the State authorities at the end of the previous year. Ten new estates came under the management during the year under review, thus making a total of 30 against 20 in 1891-92. The aggregate receipts and disbursements of these estates were Rs. 55,297 and Rs. 50,696 respectively as against Rs. 32,200 and Rs. 33,264 in the previous year.

Police.

The police force consisted of 436 foot and 54 mounted men, as in 1891-92. The total expenditure on their account amounted to Rs. 58,001 as against Rs. 58,254 in 1891-92. The number of offences reported to the police was 667 against 625 in the previous year. The number of persons arrested was 421 against 394. Of these, 399 were sent to Magistrates for trial against 362 last year; of the persons sent for trial 213 against 204 were convicted and 184 against 155 were acquitted or discharged. The percentages of convictions to persons arrested and to persons sent for trial were respectively 50 and 53 against 52 and 56 in the previous year. The value of the property stolen amounted to Rs. 25,317 against Rs. 18,179, and that of the property recovered to Rs. 13,760 against Rs. 12,106 last year. The percentage of recoveries to stolen property fell from 66·5 to 54.

Criminal Justice.

One thousand four hundred and thirty-two persons were dealt with by the Criminal Courts as against 1,317 in the previous year. Of these 545 were discharged for want of evidence, 445 were acquitted, 392 were convicted, 32 were committed to the Courts of Session, and 18 remained awaiting trial at the close of the year. The number of appeals was 61 as against 77 last year. All the appeals were disposed of during the year.

TRIBUTARY STATES. *Southern Marátha States.*

Prisons.

There was one jail at Sángli and 7 lock-ups at the táluka stations as in the previous year. The number of persons confined in the jail and lock-ups was 350. There were 111 prisoners remaining therein at the close of the year. The total expenditure on account of the prisoners was Rs. 8,440 as against Rs. 7,547 in 1891-92. The health of the prisoners was good, 2 prisoners only having died during the year.

Civil Justice.

There were 2,834 suits for disposal as compared with 4,880 in the previous year. Of these, 2,482 suits were disposed of during the year against 4,544 in the previous year, leaving a balance of 352 against 336. Two thousand one hundred and two applications for execution of decrees were filed during the year, making, with the balance of 136, a total of 2,238. Of these, 2,007 were disposed of, leaving only 231 applications for disposal at the close of the year. Four hundred and fifty appeals were filed during the year. These, with the 57 appeals remaining at the close of the previous year, brought the total number for disposal to 507. Of these, 446 were disposed of, leaving a balance of 61 at the end of the year.

Registration.

Two thousand seven hundred and eighty-nine documents were presented for registration against 2,906 in the previous year. The cost of the Registration Department was Rs. 2,119, as against Rs. 1,974 last year.

Municipalities.

There were 6 municipalities as in the previous year. The total receipts and expenditure were Rs. 42,267 and Rs. 36,316 against Rs. 32,939 and Rs. 30,823 in 1891-92.

Forests.

The area under forest was 57,402 acres as in the previous year. The receipts of the Forest Department were Rs. 29,465 as against Rs. 29,943, while the expenditure amounted to Rs. 8,264 as against Rs. 12,373 in 1891-92.

Public Works.

The total expenditure on public works was Rs. 1,21,249 against Rs. 1,37,470 in the preceding year. Of these Rs. 55,663 were spent on water supply, Rs. 37,761 on school-houses, dharamsháláas and other buildings, Rs. 18,248 on communications, and the remainder on miscellaneous petty public works.

Revenue and Finance.

The year opened with a balance of Rs. 10,09,602 as against Rs. 10,36,610 in the previous year. The receipts of the year were Rs. 11,91,836 against Rs. 10,33,741 in 1891-92. The expenditure amounted to Rs. 10,15,265 as against Rs. 10,60,749. The balance at the end of the year was Rs. 11,86,173 as compared with Rs. 10,09,602 in 1891-92.

Vital Statistics and Medical Relief.

There were 7,430 births and 5,817 deaths registered during the year as against 8,566 and 5,883 respectively in the previous year. Cholera was very prevalent in all the tálukas. There were 6 dispensaries in the State as in the previous year. The total number of patients treated at these institutions was 41,915 as against 43,854 in 1891-92. The expenditure amounted to Rs. 12,248 as against Rs. 11,889 in the previous year. During the year under review 9,578 persons were vaccinated as against 10,076 in the previous year. The total expenditure on vaccination was Rs. 2,615 against Rs. 2,837 in 1891-92.

Education.

There were 84 State schools and 32 indigenous schools in the State with 5,434 and 810 pupils respectively as compared with 80 State schools with 5,326 pupils and 21 indigenous schools with 668 pupils respectively in the previous year. The Sángli High School sent up 12 boys for the Matriculation Examination of the Bombay University, of whom 10 passed. Four new schools were opened during the year. The cost of the Educational Department amounted to Rs. 33,452 or Rs. 1,581 more than in the preceding year.

MIRAJ (SENIOR).

General.

The Miraj State was originally an offshoot of that of Sángli, from which it was finally separated in 1808. In 1820 it was subdivided into four shares. Of these, however, two lapsed to Government owing to failure of heirs in 1842 and 1845; the remaining two form Miraj (Senior) and Miraj (Junior). The State was under the direct management of the Political Agent owing to the minority of the Chief from 1875 to 1887. In the latter year the Chief was entrusted with full powers of administration, which he has continued to hold ever since.

Administration of the land.

A survey settlement was introduced into the entire State in 1867-68 and the rates then declared are still in force, except in the Modnimb Táluka, where they were reduced by one-tenth in 1885, in order to bring them down to the level of the rates prevailing in the adjoining Sholápur district.

Season and Crops.

The rainfall was heavier than usual but very unevenly distributed. The crops therefore were not as good as might have been expected.

Wards' Estates.

There were 10 wards' estates under management as against 8 in the preceding year. Their aggregate receipts and expenditure were Rs. 31,299 and Rs. 35,648 respectively.

Police.

The strength of the police force remained the same as in the previous years, *viz.* 224. The cost of the police was Rs. 22,857 as against Rs. 23,146 in 1891-92. The number of offences reported to the police was 161 as against 237, and that of persons arrested was 192 as against 269 in the previous year. All the accused arrested were sent for trial. One hundred and thirteen were convicted against 201, and 76 discharged, acquitted, &c., against 57. The percentage of accused convicted to accused arrested and to accused sent for trial fell from 74 and 80 in 1891-92 to 58 and 58 respectively during the year under

report. The value of property stolen and recovered was respectively Rs. 2,030 and Rs. 1,579 as against Rs. 1,875 and Rs. 894 in 1891-92. The percentage of recoveries to stolen property rose from 47·67 to 60. TRIBUTARY STATES. *Southern Marátha States.*

The Criminal Courts dealt with 579 persons as against 639 last year. Of these, 183 were convicted, 384 were acquitted and 12 remained under trial at the close of the year. There were 16 appeals during the year, all of which were disposed of. Criminal Justice.

There were 123 persons confined in the jails during the year as against 112 in 1891-92. The expenditure amounted to Rs. 3,059 against Rs. 3,010 in 1891-92. Prisons.

The number of suits for disposal was 709 against 678 in the previous year. Of these, 644 were disposed of during the year, leaving a balance of 65 as compared with 610 and 68 respectively in the previous year. Eight hundred and twenty applications for the execution of decrees were filed in the year as against 838 in the previous year. Of these 668 were disposed of, as against 657 in 1891-92; the balance at the close of the year being 152 against 181 in the previous year. There were 50 appeals for disposal, including the previous year's balance (4), as against 40 in 1891-92. Of these 43 were disposed of, leaving a balance of 7 at the end of the year. Civil Justice.

Eight hundred and ninety-eight documents were presented for registration against 918 of the previous year. The expenditure on this department was Rs. 757 as against Rs. 886 in 1891-92. Registration.

The number of municipalities remained the same as last year (5). The aggregate receipts and expenditure were Rs. 34,579 and Rs. 33,173 respectively. Municipalities.

The expenditure on public works was Rs. 55,320 as against Rs. 59,954 in the previous year. Public Works.

The revenue of the year was Rs. 3,38,402 against Rs. 3,19,467 last year. The expenditure was Rs. 3,68,700 against Rs. 3,69,282 in the previous year, the closing balance being Rs. 7,33,682 against Rs. 7,63,980. Revenue and Finance.

There were 2,791 births and 2,568 deaths registered during the year as against 3,084 births and 2,453 deaths in 1891-92. Cholera was prevalent in the months of June, July and November. The total number of attacks was 704, of which 307 proved fatal. There were 3 dispensaries in the State at which 26,779 patients were treated. The cost of the dispensaries was Rs. 7,488 against Rs. 7,390. The number of vaccinations was 3,081 against 3,367 in the previous year. The expenditure on account of vaccination was Rs. 1,001 against Rs. 1,050. Vital Statistics and Medical Relief.

There were 46 schools with 3,175 pupils as against 44 schools with 3,103 pupils in 1891-92. The cost of education was Rs. 21,514 against Rs. 21,906 in 1891-92. The Miraj High School sent up 10 students for the Matriculation Examination, of whom 5 passed. Education.

MIRAJ (JUNIOR).

The history of the Miraj (Junior) State has been given above. It has been under the direct management of the Political Agency since 1877, owing to the minority of the Chief, who is now 17 years of age, and is studying at the Rájárám College. General.

Two out of the three tálukas in the State have been surveyed and assessed during the last decade. Measuring operations have been finished in the third, but the rates have not yet been declared. Survey and Settlement.

The season was on the whole favourable; and the outturn of kharif and rabi crops above the average. Season and Crops.

There were 7 wards' estates under the management of the State authorities during the year against 4 last year. Wards' Estates.

The police force consisted of 230 men of all grades. The cost of the police amounted to Rs. 17,457 against Rs. 16,951 in 1891-92. Ninety-two offences were reported to the police as against 60 in the previous year. The number of persons arrested was 88 against 101. All of them were sent for trial to the Magistrates, who convicted 60 against 46 in 1891-92. Each of the percentages of conviction to arrested persons and to persons sent for trial rose from 45 to 68. The value of property stolen amounted to Rs. 1,735 against Rs. 1,068 last year. The value of property recovered was Rs. 630 against Rs. 457. The percentage of recoveries to property stolen fell from 42·7 to 36·2. Police.

The Criminal Courts in the State disposed of 107 cases involving 220 accused persons, as compared with 121 cases in which 243 persons were implicated. Of the accused, 113 were convicted. There were 9 appeals against 12 in the previous year. All were disposed of within the year. Criminal Justice.

There were 3 jails in the State, the cost of which amounted to Rs. 2,076 as against Rs. 1,662 in 1891-92. The number of prisoners confined in all the jails at the close of the year was 30 as compared with 33 in the year preceding. Prisons.

The total number of civil suits for disposal was 112 as against 68 in 1891-92. Of these, 104 were disposed of, leaving 8 as compared with 7 in the previous year in arrears. The number of applications for execution of decrees was 77. Of these 68 were disposed of as compared with 51 in the previous year. The number of appeals filed was 11 against 10 last year. Of these, 6 were disposed of, Civil Justice.

TRIBUTARY STATES. *Southern Marátha States.*

Four hundred and sixteen documents were presented for registration against 370 in 1891-92. The cost of the registration department was Rs. 110 against Rs. 113.

Municipalities.

The number of municipalities remained the same. Their aggregate receipts and expenditure were Rs. 4,346 and Rs. 3,171 respectively.

Public Works.

The expenditure on public works was Rs. 46,608 against Rs. 45,492 in the previous year.

Revenue and Finance.

The year opened with a balance of Rs. 6,02,475. The receipts during the year amounted to Rs. 2,42,018 and the expenditure to Rs. 3,81,944 as compared with Rs. 3,26,009 and Rs. 3,82,690 respectively in the previous year.

Vital Statistics and Medical Relief.

There were 8,679 patients treated at the two dispensaries in the State at a cost of Rs. 3,351 as compared with 9,108 patients treated at a cost of Rs. 3,374 in 1891-92. There was a decrease both in the number of births and deaths, the former being 1,275 against 1,319 and the latter 927 against 1,076. The number of persons vaccinated during the year showed a slight increase of 63 over that of last year, the figures being 1,091 and 1,028 respectively.

Education.

The number of schools remained the same as last year. The pupils numbered 1,308 against 1,277 in 1891-92. The cost of education was Rs. 9,693 as against Rs. 10,812 in the previous year.

KURUNDVÁD (SENIOR).

General.

The Kurundvád (Senior) State, as has been explained above, was granted to a branch of the Patvardhan family by the Peshwa. In 1812, the State was divided into two parts, one of which was called Kurundvád, and the other Shedbál or Kágvád. The latter share, owing to the failure of heirs, lapsed to Government in 1857. Kurundvád proper was again partitioned in 1854, and the present divisions form Kurundvád (Senior) and Kurundvád (Junior). The Chief manages his State himself.

Survey and Settlement.

Out of three tálukas one was surveyed and settled in 1887. In the remaining two measuring and classing operations have been finished, but the rates not yet been introduced.

Season and Crops.

The rainfall during the year was abundant and the harvest good.

Wards' Estates.

There were three wards' estates under the management of the State. The aggregate receipts and expenditure were Rs. 5,261 and Rs. 637 respectively.

Police.

The police force consisted of 75 men as against 80 in the previous year. Their cost was Rs. 6,740 as against Rs. 5,724 in the preceding year. The number of offences reported rose from 40 to 42 and that of arrests from 56 to 89; of the persons arrested 76 were sent for trial as against 53 in 1891-92. Of these 60 were convicted as against 28 in 1891-92. The percentages of convictions to accused arrested and to accused sent for trial were 67 and 78 as against 50 and 52 respectively. The value of property stolen and recovered was Rs. 1,923 and Rs. 350 as against Rs. 551 and Rs. 335, respectively, in 1891-92. The percentage of recoveries to stolen property fell from 60 to 18.

Criminal Justice.

The number of persons brought to trial was 526 as against 380 in the previous year. Of these 125 were convicted; one remained awaiting trial at the close of the year. Eight appeals were preferred as against 5 in the previous year; all were disposed of.

Prisons.

There were 5 jails and lock-ups in the State, the cost of which was Rs. 1,234. There were 74 admissions as against 37 last year.

Civil Justice.

The total number of suits for disposal was 316, against 379 in 1891-92. Of these 315 suits were disposed of against 310, leaving a balance of 1 against 69 in the previous year. There were 349 applications for execution of decrees; of these 343 were disposed of. There were 53 appeals for disposal: all except one were heard within the year.

Registration.

There were 923 documents for registration against 927 in 1891-92.

Municipalities.

There was one municipality at Kurundvád, the receipts and expenditure of which were Rs. 2,235 and Rs. 2,190 respectively.

Public Works.

The expenditure on account of public works was Rs. 10,185 as against Rs. 16,564 in the previous year.

Revenue and Finance.

The revenue of the State was Rs. 1,39,379 and the expenditure Rs. 1,39,416 as compared with Rs. 1,38,709 and Rs. 1,42,586 in the previous year. The balance at the close of the year was Rs. 581 against Rs. 618.

Vital Statistics and Medical Relief.

There were two dispensaries in the State at which 4,858 patients were treated. The expenditure on this account was Rs. 2,663. One thousand three hundred and forty births and 912 deaths were registered during the year of review as against 1,372 births and 969 deaths last year. One thousand and thirteen persons were vaccinated as against 1,585 in 1891-92.

Education.

There were 12 schools in the State with 608 pupils. The expenditure on account of education was Rs. 4,965 as against Rs. 2,386 in the year previous.

KURUNDVÁD (JUNIOR).

The Chief of the Kurundvád (Junior) State manages it himself with the help of a kárbhári.

Survey operations in the State have been completed, but the rates have not yet been declared. Survey and Settlement.

The season was on the whole favourable and the outturn of crops was good. Prices of fodder and food-grains were moderate in consequence. Season and Crops.

The number of police was 67, the same as last year. The cost of maintaining the force was Rs. 7,317. Thirty-nine offences, as against 57, were reported to the police. The number of accused arrested was 69, and of those sent for trial was 48. Of this number 38 against 37 were convicted. The percentages of convictions to arrests rose from 38 to 55. The value of property stolen amounted to Rs. 1,830. The percentage of recoveries to property stolen fell from 58 in 1891-92 to 21 in 1892-93. Police.

The number of accused persons dealt with by the Criminal Courts was 191 against 177 in the previous year. Of these, 99 against 84 were convicted. There were 7 appeals for disposal during the year against 6 in 1891-92. Of these 3 were disposed of. Criminal Justice.

There was one jail and two lock-ups in the State, maintained at a cost of Rs. 2,168. Prisons.

Out of the 176 suits for disposal, 159 suits were disposed of as compared with 160. There were 183 applications for execution of decrees. Of these 163 were disposed of. There were 38 appeals preferred. Of these 34 were disposed of. Civil Justice.

Eight hundred and ninety-eight documents were presented for registration. The fees realized amounted to Rs. 1,247, against Rs. 1,130 in the preceding year. Registration.

There were two municipalities in the State, the aggregate receipts and expenditure of which were Rs. 797 and Rs. 561 respectively. Municipalities.

The expenditure on account of public works was Rs. 12,106 against Rs. 9,601 in 1891-92. Public Works.

The revenue of the State was Rs. 1,33,817, and the expenditure Rs. 1,33,217, as against Rs. 1,42,074 and Rs. 1,41,337 respectively in 1891-92. Revenue and Finance.

There was one dispensary at which 5,850 patients were treated as against 4,712 last year. Its cost was Rs. 680. There were 987 births and 800 deaths registered during the year as against 1,169 births and 729 deaths in 1891-92. The number of persons vaccinated was 1,056 against 1,098 on the previous year. Vital Statistics and Medical Relief.

There were 9 schools with 448 pupils. The expenditure on account of education amounted to Rs. 1,705 against Rs. 1,601 in the preceding year. Education.

JAMKHANDI.

The Jamkhandi State, like those already mentioned, was granted to a member of the Patvardhan family by the Peshwa. A partition of the territories contained in it was made in 1808, when it was split into two shares. One of those, Tásgaon, lapsed to the British Government in 1848 through failure of heirs. The other now forms the present State of Jamkhandi. The administration is carried on by the Chief with the assistance of a kárbhári. General.

The Kundgol táluka of the State was surveyed and settled in 1872. The remaining tálukas have been measured, but the rates have not been announced. Survey and Settlement.

The rainfall was sufficient and seasonable. The outturn of crops was above the average, the cotton crops being especially good. Season and Crops.

The police force consisted of 330 men of all grades as against 333 in the previous year. The cost of the police amounted to Rs. 51,775 against Rs. 45,863 in 1891-92. The number of offences reported to the police was 383 as against 405 in the previous year. Two hundred and forty persons were arrested by the police as compared with 261 last year. Of these 216 were sent for trial against 251; 107 were convicted. The percentage of convictions to arrests was 44 against 42 respectively in the previous year. The value of the property stolen was double that of the previous year, being Rs. 6,977 against Rs. 3,484. The amount recovered was Rs. 3,038 against Rs. 2,027 in the previous year. The percentage of recoveries to stolen property was 43 against 58 in 1891-92. Police.

The Criminal Courts dealt with 490 accused persons against 679 in 1891-92. Of these 158 were convicted. Of the 23 appeals preferred, one remained pending at the close of the year. Criminal Justice.

There was one jail and four lock-ups in the State. One hundred and forty-five prisoners were confined in them during the year. The expenditure amounted to Rs. 3,856. Prisons.

The number of civil suits for disposal during the year was 1,412 against 1,324 last year. Of these, 1,209 suits were disposed of as against 1,143. There were 1,410 applications Civil Justice.

TRIBUTARY STATES. *Southern Marátha States.*

for execution of decrees against 873 in 1891-92. There were 72 appeals for disposal during the year as against 40 in the preceding year. Three appeals remained undisposed of at the close of the year.

Registration.

Seven hundred and fifty-nine documents were registered during the year.

Municipalities.

The number of municipalities in the State was reduced from 8 in 1891-92 to 6. The aggregate receipts were Rs. 25,808 and expenditure Rs. 25,464.

Public Works.

The expenditure on public works showed a decrease, being Rs. 97,340 as against Rs. 1,05,511 in 1891-92. Of this amount, Rs. 9,570 were spent on relief works.

Revenue and Finance.

The gross revenue of the State was Rs. 4,54,385 against Rs. 3,97,881, and expenditure Rs. 4,91,928 against Rs. 4,79,887 in 1891-92.

Vital Statistics and Medical Relief.

There was one hospital, besides three dispensaries in the State. There were 30,294 patients treated at a cost of Rs. 9,105. There were 3,792 vaccinations against 3,636 in the previous year. There were 3,417 births and 2,920 deaths during the year.

Education.

There were 41 schools attended by 2,182 scholars as compared with the same number of schools with 2,180 pupils in the previous year. The cost of education during the year was Rs. 1,949 against Rs. 14,693 in the preceding year.

MUDHOL.

General.

The Mudhol State comprises 81 villages lying between Bijápur, Kolhápur and Belgaum districts. The Chief is a Marátha, whose ancestors originally received the State as a jágir from the Muhammadan kings of Bijápur. The State was, with the exception of an interval of a few months, under Government management, owing to the minority of the successive Chiefs, from 1856 to 1882, since which year the present Chief has conducted the administration. The State, mainly by reason of the long period that it was under Government management, is in a most flourishing condition. Large sums have been spent on public works, and much has been done to further the spread of education. There is moreover a balance to the credit of the State of over nine lakhs of rupees.

Survey and Settlement.

A survey settlement was introduced into the State in 1868, which expired in 1883. The revision survey is in progress and will be shortly completed.

Season and Crops.

The rainfall of the year was sufficient and seasonable. The outturn of the kharif crop was fair and that of the rabi was good.

Police.

The number of policemen was the same as last year, namely 102; the cost incurred by the State on their account was Rs. 10,155 against Rs. 9,276. Offences reported to the police during the year were 82 against 86 last year. In connection with these offences the police arrested 62 persons against 87 in 1891-92. Of these 58 were sent for trial. Out of his number 49 were convicted. The percentage of convictions to arrests was 79. The value of the property stolen during the year was Rs. 2,578 against Rs. 2,801 last year. The value of the property recovered was Rs. 262 against Rs. 814 in the year before. The percentage of recoveries to stolen property fell from 29 in the preceding year to 9 in the year under review.

Criminal Justice and Prisons.

The number of persons dealt with by Criminal Courts during the year was 452 against 495 in the previous year. Of these 99 were convicted. Thirteen appeals were preferred during the year against 9 in the previous year. All were disposed of. There was one jail at Mudhol; 62 prisoners were confined in it during the year.

Civil Justice.

There were 406 suits for disposal during the year as against 344 last year. Of these 344 were disposed of, leaving a balance of 62 against 112. The total number of applications for execution of decrees during the year was 356 against 400 in the year before. Of these 251 were disposed of. There were 42 civil appeals for disposal during the year as against 43 in the previous year. Of these, 33 against 34 in the preceding were decided.

Registration.

Five hundred and three documents were registered during the year of report as against 559 last year. Expenditure was Rs. 600 as in the previous year.

Municipalities.

The number of municipalities was the same as in the previous year. Their aggregate receipts and expenditure were Rs. 7,350 and Rs. 6,446 against Rs. 8,197 and Rs. 7,829 in the previous year.

Public Works.

Expenditure on public works amounted to Rs. 37,530 against Rs. 33,284 in 1891-92.

Revenue and Finance.

The year opened with a balance of Rs. 9,13,811 against Rs. 9,53,946 last year. The receipts and expenditure of the year were respectively Rs. 2,08,565 and Rs. 2,59,184 against Rs. 2,86,962 and Rs. 3,09,638 in the previous year.

Vital Statistics and Medical Relief.

There were two dispensaries maintained at a cost of Rs. 4,735 as against Rs. 4,845 in 1891-92. There were 1,644 births and 1,192 deaths during the year as compared with 2,430 births and 1,440 deaths of the previous year. The number of vaccinations performed during the year was 1,905 as against 2,454 last year. The cost of the Vaccination Department was Rs. 815 against Rs. 802 in 1891-92.

The number of schools in the State was 24. They were attended by 1,266 scholars. The expenditure incurred on account of education during the year was Rs. 8,193 against Rs. 7,714 in 1891-92. There were two public libraries in the State. TRIBUTARY STATES. *Southern Marátha States.* Education.

RÁMDURG.

The State of Rámdurg comprises 46 villages situated between Bijápur and Dhárwár. The Chiefs are Maráthas, whose ancestors were placed in charge of the important forts of Rámdurg and Nargund by Shambhoji, Shiváji's grand-son. In 1778 the territory was conquered by Hyder Ali, who exacted service on the same conditions as the Peshwa. His son Tipu, however, subsequently tried to impose further burdens. The Rámdurg Chief resisted, and Tipu consequently blockaded the fortress of Nargund until it was surrendered. The Chief was carried away captive to Mysore, and was not released until the defeat and death of Tipu. On his return in 1791 a new sanad was granted by the Peshwa, bestowing the estate on him, and a representative of another branch of the family joined Rámráo. The estate was subsequently divided, the latter taking the land round Rámdurg and the former Nargund. The Nargund estate was confiscated by Government owing to the disloyalty of its Chief at the time of the mutiny, and now forms part of the Dhárwár district. Rámdurg, however, has continued under its Chief. Since 1878 it has been managed by kárbháris under the direct supervision of the Political Agent owing to the minority of the Chief.

A survey settlement was introduced into the State in 1890-91, and the rates, then fixed, have been guaranteed for 12 years. Survey and Settlement.

The season was on the whole favourable. The rainfall was heavy and consequently the kharif crops were slightly damaged; but the rabi crops were good. Season and Crops.

The strength of the police force remained at 64, and cost Rs. 5,957 as against Rs. 6,070 of the last year. The number of offences reported was 59 as against 82 in 1891-92. Sixty-four persons were arrested against 96 last year. Out of the 62 persons sent for trial 40 were convicted. The percentages of convictions to arrests rose from 36 to 62. The value of property stolen and recovered during the year was Rs. 609 and Rs. 557 as compared with Rs. 2,036 and Rs. 349 in the preceding year. The percentage of recoveries to property stolen was 91 as against 17 in 1891-92. Police.

The number of Criminal Courts remained the same as last year. The total number of persons dealt with by these Courts was 112 as compared with 197 in the previous year. Of these 54 were convicted. There were 4 criminal appeals as against 7 in 1891-92. Criminal Justice.

There was one jail in the State maintained at a cost of Rs. 1,714. Prisons.

The total number of suits for disposal during the year was 172 as against 184 last year. Of these 157 suits were disposed of as against 162. There were 169 applications for execution of decrees; of these 149 were disposed of. There were 50 civil appeals for disposal during the year as compared with 42 in the previous year. Of these 43 were decided. Civil Justice.

The total number of documents registered during the year was 186 against 205 last year. The realizations from fees, &c., amounted to Rs. 619 against Rs. 667, and the expenditure to Rs. 540 against Rs. 200 in 1891-92. Registration.

There were two municipalities, one at Rámdurg and the other at Surebán. Their income and expenditure were respectively Rs. 9,396 and Rs. 11,021. Municipalities.

The amount spent on public works during the year amounted to Rs. 15,630 as compared with Rs. 11,502 in the preceding year. Public Works.

The receipts and expenditure of the year were Rs. 1,51,882 and Rs. 1,40,339 respectively as compared with Rs. 74,133 and Rs. 1,37,032 in 1891-92. Revenue and Finance.

There were two dispensaries in the State at which 10,769 patients were treated, against 8,969 last year. The cost on account of these dispensaries was Rs. 3,126 against Rs. 3,061 in the previous year. The number of births and deaths registered was 1,128 and 1,068. The number of vaccinations was 1,809 as against 1,838 in 1891-92. The cost of vaccination was Rs. 376 against Rs. 641 in the previous year. Vital Statistics and Medical Relief.

The number of schools was 17. They were attended by 1,166 pupils. The cost of education was Rs. 9,708 or Rs. 2,736 more than in 1891-92. Education.

JATH.

Jath is a small State which was formerly one of the Sátára Jaghirs. It was originally granted to the present Chief's ancestors by Ali Adil Shah, king of Bijápur; and the grant was confirmed by Aurangzib. The Chiefs, who belong to the Marátha caste, are styled Deshmukh, and rank as first-class Sardárs. Owing to the mismanagement of the late Chief, the State was under attachment from 1874 to 1885, and was under the direct supervision of the Political Agent, Sátára. In September of the latter year, however, the Chief was reinstated, but as he failed to carry out the reforms required of him, he was again deprived of his

TRIBUTARY STATES. *Southern Marátha States.*

powers in 1891. The management of the State was at first placed in the hands of the Collector of Bijápur, who had exercised general supervision over it since 1887. But subsequently it was thought advisable to transfer the State with its dependency Daphlápur to the charge of the Political Agent, Southern Marátha Country. The Chief died without issue in January 1892. The Government of Bombay thereupon permitted his widow to adopt Bovaji, fourth son of Parashramrao Umranikar, as her son, and recognized him as heir to the gádi. As he is at present a minor, the State is managed by an Administrator appointed by Government, under the supervision of the Political Agent, Southern Marátha Country.

Season and Crops.

The season was on the whole favourable. The rainfall was timely and sufficient.

Police.

The number of police consisted of 69 men against 73 in 1891-92. The cost of maintaining them was Rs. 8,854 against Rs. 7,474 in the previous year. Two hundred and eighty-nine offences were reported to the police during the year as against 259 in 1891-92. Four hundred and sixty-two persons were arrested, of whom 454 were sent for trial. Convictions were recorded against 128. The percentage of convictions to arrests fell from 29 to 27. The value of property stolen amounted to Rs. 1,801 against Rs. 8,911. The property recovered was worth Rs. 810 against Rs. 1,504. The percentage of recoveries to stolen property rose from 16 in 1891-92 to 45 in the year under review.

Criminal Justice.

The number of persons dealt with by the Criminal Courts during the year was 445 against 443 in 1891-92. Of these 127 were convicted, as compared with 123 in the previous year. Out of the 14 appeals preferred 9 were disposed of during the year.

Prisons.

There was one jail at Jath, in which 44 prisoners were confined at a cost of Rs. 1,577.

Civil Justice.

There were 242 suits for disposal, out of which 203 were disposed of, leaving a balance of 39 at the close of the year; the corresponding figures for the previous year being 230, 196 and 34. One hundred and forty applications for execution of decrees were filed during the year. Of these, 137 were disposed of. There were 43 appeals pending disposal when the State was transferred to this Agency. Four new appeals were preferred during the year, making a total 47 appeals for disposal; of these, 24 were decided, leaving a balance of 23 at the close of the year.

Registration.

The number of documents presented for registration was 194 against 251 in 1891-92. The realizations on account of fees amounted to Rs. 439 against Rs. 588 in 1891-92.

Public Works.

The total expenditure on public works was Rs. 9,514 against Rs. 8,115 in 1891-92.

Revenue and Finance.

The receipts for the year amounted to Rs. 1,68,826 and the expenditure to Rs. 1,44,442, as contrasted with Rs. 1,92,164 and Rs. 1,60,819 in 1891-92.

Vital Statistics and Medical Relief.

There was one dispensary in the State maintained at a cost of Rs. 1,284. The number of patients treated therein was 7,499 against 6,451 in 1891-92. There were 2,547 births and 1,376 deaths during the year as against 2,862 and 2,365 respectively in the previous one. The number of vaccinations was 3,675 as against 3,812 in 1891-92.

Education.

The number of schools remained the same as last year. The number of scholars attending them was 880 against 842. The cost of education was Rs. 4,336 against Rs. 5,049 last year.

DAPHLÁPUR.

General.

The small State of Daphlápur continued to be managed by Ránibái Sáheb Daphlé aided by her Kárbhári.

Season and Crops.

The heavy rain which fell towards the end of the year injured the khárif crops, but the outturn of rabi crops was fair.

Police.

The number of police was 28; their cost Rs. 423. The number of offences reported was 14, in connection with which 16 persons were arrested, all of whom were sent for trial. Of these 7 were convicted. In 1891-92 the number of offences was 8 and of persons arrested 13. The percentages of convictions to arrests fell from 46 in 1891-92 to 43 in the year under report. The value of property stolen and recovered was Rs. 958 and Rs. 811 respectively, the corresponding figures for the last year being Rs. 304 and Rs. 150. The percentage of recoveries to stolen property rose from 49 to 84.

Criminal Justice.

Seventy-one persons were dealt with by the Criminal Courts against 88 last year. Of these, 23 were convicted. Three criminal appeals were preferred and disposed of.

Prisons.

There was one jail at Daphlápur, maintained at a cost of Rs. 50.

Civil Justice.

Thirteen suits were filed during the year, which with the previous year's balance gave a total for disposal of 17 against 14 in the previous year. Of these 13 were disposed of.

Registration.

Twenty-two documents were presented for registration, all of which were registered.

Public Works.

Rs. 2,756 were spent on repairs to various roads.

Revenue and Finance.

The revenue of the State amounted to Rs. 16,954 against Rs. 16,523, and the expenditure to Rs. 18,478 against Rs. 16,079 in 1891-92.

The number of births and deaths registered was 258 and 132 against 232 and 293 respectively in 1891-92. The number of children vaccinated was 391 against 497 last year. TRIBUTARY STATES. *Southern Marátha States, Savanúr and Khairpur.*

There were 4 vernacular schools for boys open in the State maintained at a cost of Rs. 660. Education.

SAVANU'R.

Area, 70 square miles; Population (1891), 16,976; Gross Revenue, Rs. 90,810.

This is a small State of 25 villages scattered through the Bankápur and Karajgi sub-divisions of Dhárwár Collectorate. The ruling family are descended from a Pathan general, who in the time of Aurangzeb was granted a large jághir in the districts of Belgaum and Dhárwar. This territory was subsequently considerably extended by his descendants who played an important part in the Marátha and Mysore war during the eighteenth century. At the end of that period however they were deprived of nearly the whole of their lands by the Maráthas, and it was only by the kind offices of the British Government, as a reward for his friendliness during the last Marátha war, that in 1818 the Nawab was secured in the enjoyment of the 25 villages now comprised in the State. The State was under attachment owing to the minority of its Chief from 1868 to 1883, when on the Nawab's coming of age the administration was handed over to him. He died however in 1884. His son being a minor, the State was again placed under Government management until 1887, when the young Chief was invested with full powers of administration. He in turn died in 1892, and the State is now once more under the management of the Collector of Dhárwár with the First Assistant Collector as Assistant Political Agent. General.

The rainfall (33·53 inches) was above the average and the outturn of all crops was better than in 1891-92. Season and Crops.

The force of 46 foot police and two savárs was increased by the addition of three foot policemen and one savár. The total number of offences reported was 83, against 118 in 1891-92. Of these 51 were cognizable. In 21 of these cases detected by the police, 30 persons were arrested and 21 convicted. The value of property alleged to have been stolen was Rs. 360 against Rs. 395 in 1891-92; while that recovered was Rs. 120, against Rs. 184. There was one jail at Savanúr. The number of prisoners confined was 27 against 34 in 1891-92. Police, Criminal Justice and Prisons.

There was one Civil Court at work in the State during the year. Eighty-six suits were instituted, of which 73 were disposed of. Their value was Rs. 6,402-9 against Rs. 8,142, the value of the 87 suits filed in the previous year. Of 39 applications for the execution of decrees, 27 were disposed of. There was one appeal against 10 in 1891-92. Civil Justice.

There were 111 documents affecting property valued at Rs. 37,549 registered during the year, as against 120 last year. Registration.

There was one municipality at Savanúr with an income (including opening balance) of Rs. 10,309; and an expenditure of Rs. 2,678. Municipality.

The revenue during the year including Local Funds and deposits was Rs. 90,810 as against Rs. 94,884 in 1891-92; and the expenditure Rs. 77,233 as against Rs. 1,52,560. Public works expenditure fell from Rs. 15,774 to Rs. 5,759. Revenue and Finance.

The newly completed dispensary was not opened during the year owing to the fact that no hospital assistant was available. Seven hundred and thirty-six births and 614 deaths were registered during the year. There were 744 vaccinations as against 1,004 in 1891-92. The cost of the vaccination establishment was Rs. 280. Vital Statistics and Medical Relief.

There were 8 schools in the State with 433 pupils and costing Rs. 2,057. There were 9 indigenous schools with an attendance of 124 as against 11 last year with an attendance of 281. Education.

SIND.

KHAIRPUR STATE.

Area 6,109 square miles; Population (1891), 1,31,937; Gross Revenue, Rs. 7,95,035.

The Khairpur State lies on the eastern side of Northern Sind and is governed in a patriarchal manner by His Highness Amir Sir Ali Murád Khán Talpur, G.C.I.E. His Highness was granted a pension of Rs. 2,000 per mensem by the British Government during the year in support of his new title. No survey of this State has ever been made, and the revenue is usually paid in kind. About three-fourths of the whole culturable area is estimated to be waste. The area brought under cultivation during the year under report was said to be 235,442 acres, showing a decrease of 1,027 acres on the previous year's cultivation which was estimated at 236,469 acres. General.

The value of the exports during the year was estimated at Rs. 10,08,840 and of imports at Rs. 5,95,570. Duties were levied on all articles of import and export, and no refunds were allowed. Trade.

BRUTARY STATES. *Khairpur and Aden.*

Police and Criminal Justice.

No change took place in the strength or cost of the police force. It consisted of 306 men, costing the State Rs. 30,312. The number of offences reported to the police was 896 against 935 in the year preceding. Arrests fell from 1,021 to 937. Out of the 878 persons sent for trial during the year, 792 were convicted. The number sent for trial in the previous year was 992, of whom 896 were convicted. The percentage of convictions to persons tried was 90·20 against 90 in 1891-92. The value of the property stolen during the year of report amounted to Rs. 14,712 against Rs. 19,122, and the percentage of recoveries fell from Rs. 96-13-4 to Rs. 81-10-0. The number of appeals presented was 17 against 12 preferred in the previous year.

Prisons.

There were two prisons in the State, the cost of which amounted to Rs. 6,600-11-0 against Rs. 6,997 in the year preceding. The number of prisoners confined in them was 930 against 1,044 in 1891-92.

Civil Justice.

The only regular Civil Court was that presided over by Mir Faiz Muhammad, the only surviving son of His Highness. The total number of suits instituted during the year was 62, of which 57 were disposed of. Other civil disputes were dealt with by panchâyats and by private arbitrators. Seventeen appeals were filed, 11 of which were disposed of.

Military.

The military expenditure during the year was Rs. 96,686 against Rs. 1,58,336 in the previous year.

Revenue and Finance.

The revenue amounted to Rs. 7,95,035 including last year's balance of Rs. 65,558. The expenditure was Rs. 6,04,461 as compared with Rs. 6,97,363 in 1891-92.

Medical Relief.

There are no dispensaries in the State. His Highness employed 9 native physicians, of whom 2 resided in Khairpur. The remaining 7 were in constant attendance on His Highness, and treated all patients seeking relief. The expenditure under this head during the year under report amounted to Rs. 16,644 against Rs. 14,755 in 1891-92. Three vaccinators were employed in the State during the year. The number of persons vaccinated was 2,888 against 2,763 in the preceding year.

Education.

As in the preceding year, 7 schools were maintained by the State in which 309 pupils received instruction. Besides these there were 35 private schools which gave instruction to 397 scholars.

ADEN.

Area, 75 square miles (exclusive of Perim, 5 square miles); Population (1891), 44,079; Gross Revenue, Rs. 2,28,815.

General.

Aden is a volcanic peninsula commanding the entrance to the Red Sea and is occupied by a strong military force. Besides the peninsula proper it includes a strip of land, running round the northern shore of the harbour to the peninsula of Little Aden, which has been acquired by purchase at different periods during the last twenty-five years. At the top of the harbour is situated the town of Shaikh Othman which was founded in 1881 to relieve the overcrowding in the settlement proper and provide a settlement for the lower classes of Arabs and Somâlis.

History.

In the tenth century Yemen, the province at the south-west angle of Arabia, of which Aden is the most important harbour, threw off the dominion of the Khalifas and assumed independence under its Imâms. An attempt was made by the Portuguese under Albuquerque in 1513 to capture the port of Aden but failed. In 1539 the province fell under the rule of the Turks, who retained it until 1630. Subsequently after a long interval, the Sultan of Lahej took possession of Aden, and retained it until about a century later; when the Government of Bombay sent an expedition against him to obtain restitution for an outrage committed on the passengers and crew of a native craft, which had been wrecked near Aden. The Sultan agreed to pay compensation for the damages he had caused and to cede Aden, but subsequently failed to carry out his promise. The British consequently in 1839 assaulted and took the place, which they retained notwithstanding numerous attempts on the part of the Arab tribes in the vicinity to dislodge them. Aden has since become one of the most important and strongly fortified possessions of the British Crown. It is the head-quarters of a Political Resident, who controls the relations of the British and Indian Governments with the numerous Arab tribes inhabiting a large area in the vicinity of the settlement, with whom treaties have been made for the maintenance of order and the protection of the trade routes to and from the interior. The mutual relations of these tribes are often far from satisfactory and frequently necessitate the interference of the Resident to stop internecine war. Attached to the settlement of Aden are the island of Perim, the Somali Coast protectorate, the island of Socotra, the Massowah, Eibat and Kooriah Moriah islands.

The first of these is a small island in the straits of the Bâb-el-Mandeb, some 100 miles from Aden. It was first occupied by the English in 1799 during Napoleon's invasion of Egypt as a precaution against the descent of the French army upon India, but subsequently abandoned. In 1857 with the introduction of the overland route, it was re-occupied and a light-house built upon it to facilitate the navigation of the straits. In 1883 a company was for[illegible] which obtained a concession on the western side of the island as a site for a coali[illegible]n. The concession was utilized and a coaling station formed, and a large numbe[illegible]ow call annually for the purpose of taking coal. The territories forming

TRIBUTARY STATES. *Aden.*

the Somali Coast protectorate which came under British control in 1884, are fully described below. The island of Socotra passed under the protection of the British Government in virtue of a treaty concluded in April 1886. The Massowah and Eibat islands were purchased in 1840 and the Kooriah Moriah islands were ceded by the Imám of Muskat in 1854. They are valuable only for the guano deposits which are found upon them.

Form of Administration.

The administration of the settlement is conducted by a Resident, who has six Assistants. Three of these are stationed at Aden, one at Perim, two at Berbera and Zaila on the Somali Coast; while there is a Deputy Assistant Political Agent at Bulhar. The Resident also has jurisdiction as a Judge of the Vice-Admiralty Court in matters connected with the slave trade; his Court is also a Colonial Court of the Admiralty. The laws in force in the settlement are, generally speaking, those in force in the Bombay Presidency supplemented on certain points by special regulations drawn up to suit local conditions. As far as the settlement itself is concerned there are no products whatever with the important exception of salt. This commodity is manufactured on a stretch of ground situated near Shaikh Othman, which was leased at a nominal rate to an Italian firm in 1886. Over 186,400 tons have been exported since that date, chiefly to Calcutta, and it is anticipated that the trade is likely to increase.

Local products.

Trade.

The trade of Aden is mainly one of transhipment. The port from its position is a great centre of distribution for the surrounding countries of Asia and Africa. In the last ten years the value of the trade done has almost doubled, and in the past year reached the large total of Rs. 8,17,55,104. The transhipment trade is of a two-fold character, direct transhipment on through bills of lading and transhipment of goods which remain some time in Aden under preparation for distribution. The first of these shows a tendency to diminish owing to the establishment of lines of steamers bringing the United Kingdom and Zanzibar, and Bombay and the Red Sea ports into direct communication with one another. The second, however, is steadily increasing, and comprises the extensive trade in coffee berries (the unhusking and cleaning of which form an important industry in Aden), skins, piece-goods and grain. Besides the transhipment trade moreover there is a considerable trade with the mainland of Arabia.

Port Trust.

Up to April 1st, 1889, the management of the port was under the direct control of the Port Officer who received orders, when necessary, from the Political Resident. In that year, however, a Board of Trustees was formed under the provisions of Act V of 1888 which has since controlled the management of the harbour. The principal task of the Port Trust has been to make arrangements for the deepening of the harbour so as to allow vessels of all sizes to enter and leave the inner harbour at all states of the tide. For this purpose a large and powerful dredger was purchased at a cost of Rs. 3,89,483, which commenced work in December 1890. Since that date the progress made with the work has been satisfactory. In order to provide the funds necessary the levy of tolls and wharfage fees on goods landed or shipped has been sanctioned by the Board.

Municipal Administration.

Funds for the maintenance of sanitary and conservancy arrangements with the settlement are raised by the levy of octroi, house-tax and other imposts. In 1892-93 the sum thus levied was Rs. 1,71,363. There is no Municipal Board; but the administration is under the control of a Municipal officer and engineer, supervised by a Committee of three, composed of two Assistant Residents and the Registrar of the Resident's Court.

Important events.

The relations between the Aden Residency and the representatives of Foreign Powers continued friendly throughout the year. Friendly intercourse was also maintained with the various Arab tribes with the exception of the Subáihis. The latter gave considerable trouble during the year, behaving in an unfriendly manner to the Survey party, and committing thefts of cattle in the vicinity of the settlement. They also murdered a British subject at Little Aden. The feud between the lower Yafai and Fadthlis continued during the year. The Political Resident visited Assab and Massowah, where he was most cordially received. He also visited Socotra, Maculla, Shehr, Shugra, and other places during the year.

Police.

The Aden Police are dealt with in Chapter III.

Criminal Justice.

During the year the Criminal Courts (excluding the Perim Assistant Resident's and Cantonment Magistrates' Courts) tried 427 cognizable and non-cognizable cases involving 708 offenders against 488 cognizable and non-cognizable cases involving 798 persons in the preceding year. The convictions were 547 against 609 in 1891. There were 48 appeals, 41 of which were rejected, in one the sentence was reversed and the prisoner discharged, in 5 the sentences were reduced and in one case the accused was subsequently committed to the Sessions Court. The Court of the Assistant Resident, Perim, disposed of 9 cases involving 13 persons of whom 12 were convicted and one discharged against 17 cases, involving 23 offenders and 15 convictions in 1891. Thirty-six cognizable cases involving 47 offenders were disposed of by the Cantonment Magistrate against 33 cases, involving 55 persons in the preceding year. The total number of convictions for 1892 and 1891 was 34 and 42 respectively.

Prisons.

The number of admissions into jail during the year was 240 against 303 in the previous year. The average cost per prisoner was Rs. 151-9-10 against Rs. 168-2-10 in 1891-92. The receipts from jail manufactures, &c., were Rs. 3,309 against Rs. 3,564 in the preceding year. The decrease of Rs. 255 was due to the smaller amount of printing orders received. The jail was inspected by the Inspector General of Prisons during the year.

TRIBUTARY STATES. *Aden and the Somáli Coast.*

Civil Justice.

The number of suits disposed of at Aden was 1,220 and the value of property involved Rs. 70,714 against 1,180 suits and Rs. 66,582 in 1891. Eight suits remained undisposed of at the close of 1892. Two hundred and ten suits of the value of Rs. 2,657 were disposed of by the Perim Court against 184 suits of the value of Rs. 2,577 in the year before. There were 26 appeals, in 2 of which the judgments of the lower Court were confirmed, in 5 the decrees were reversed, in 5 the decrees were modified, five cases were sent for re-trial and nine were rejected. The receipts in the Resident's Court amounted to Rs. 13,043, and the expenditure to Rs. 11,999 against Rs. 14,462 and Rs. 11,626 respectively in 1891-92. The Court of the Resident was not called upon to adjudicate any slave trade or other case within the jurisdiction of the Colonial Court of Admiralty.

Registration.

One hundred and fifty-three deeds representing property of the value of Rs. 2,68,167 were registered against 142 deeds of the value of Rs. 1,70,900 in the previous year. The receipts were Rs. 1,301 against Rs. 816 in 1891-92, and the expenditure rose from Rs. 1,288 to Rs. 1,414 in 1892-93.

Municipal

The revenue and expenditure of the Aden Municipality for 1891-92 and 1892-93 were as follows :—

	Receipts.		Expenditure.	
	1891-92.	1892-93.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.
Aden proper	1,31,839	1,41,152	1,15,407	95,039
Shaikh Othman	29,299	30,215	51,718	40,123
Total ...	1,61,138	1,71,367	1,67,125	1,35,162

The decrease in expenditure at Aden was only apparent, as many public works provided for in the budget were not undertaken during the year. The expenditure on account of permanent establishment was greater than in the previous years, owing to the entertainment of a Superintendent and Engineer whose pay and allowances were defrayed for the whole year. The expenditure for Shaikh Othman was gradually being reduced.

Marine.

Information under Marine is given in Chapter III.

Quarantine.

Quarantine was imposed at different times and for various periods on arrivals from the African Coast, from Cape Guardafui to Suakin, from the Arabian Coast between Aden and Lith, from Madras, Bussorah and Karáchi.

Vital Statistics and Medical Relief.

Five hundred and ninety-five births, and eleven hundred and six deaths were registered against 465 and 1,504 respectively last year. The public health was good on the whole, but malarial fever was prevalent during the cold months of the year. Including Shaikh Othman there were in all 22,879 patients treated in the various civil hospitals and dispensaries against 20,406 in the previous year. There were 17 cases of small-pox against 30 last year. The number of persons vaccinated was 1,811 compared with 1,324 in the preceding year.

Shipping and Trade.

Details under shipping and trade are given in Chapters III and IV.

Education.

The monthly average attendance at the Crater English School decreased to 72 as compared with 82 in the year previous. This was owing to the opening of a Gujaráti school under a Bráhman teacher, which many of the Gujaráti-speaking pupils joined. The monthly average attendance at the Táwáhi English School rose from 25 in 1891-92 to 28 during 1892-93. In the 3 Arabic schools at the Crater, Táwáhi and Shaikh Othman, the numbers of the pupils were fully maintained. The total expenditure on education in the settlement was, for the year under report, Rs. 6,397, against Rs. 6,735 in 1891-92. The receipts for 1892-93 were smaller by Rs. 147.

THE SOMÁLI COAST.

Extension of British Protectorate.

The British Somáli Coast Protectorate extends from Lehadu, or more properly Loyada on the west, situated about half-way between Zaila and Jibuti, to Bandar Ziader on the east, that is from 43°15′ to 49° east longitude. The extent inland of the Protectorate has not been defined, but includes the territory usually occupied by the following tribes:— Half of the Esa, the Gadabursi, the numerous Habr Awal tribes, the Habr Gerhajis, the Habr Toljaala, and the Warsingli. It is bounded on the north by the sea; on the west by the line of demarcation between the French and English Protectorates and which runs from Loyada to Abbaswain, Biyo Kaboba, and Gildessa; on the south by the Somáli tribes under Harrar and, roughly speaking, the 8th degree of north latitude as far as 47° east longitude, whence, trending north-east, the eastern boundary is defined by the extent of the Warsingli territory up to the 49th degree of east longitude.

Physical features.

The maritime plain is of varying extent: on the east and as far west as between Karam and Berbera (longitude 45° 30′) the lofty mountains approach the sea; south of Berbera and Bulhar the Golis range of mountains may be said to run parallel to the coast at a

distance of about 40 to 50 miles. Parts of the south-west Habr Awal country and the Gadabursi country are mountainous. The Esa country is flat, gradually rising to Gildessa, where the mountains are entered. To the south of the main ranges, on the south-west lies the great waterless plateau called the "Haud" which, running south-east, loses itself in the Nogal valley. The highest ranges appear to be on the east, where they approach 7,000 feet. The highest point of the Golis range is Tawawur Feet. The general level of the Haud is about 4,000 feet above sea level. There is not one real river in all this vast region. Broad, dry, sandy river beds with low banks are frequently met with, and these carry off the rainfall which falls at uncertain intervals and are generally speaking dry in a few hours, although very many of them hold a good supply of water below the surface. The country, generally speaking, may be said to be rugged, arid and unfit for cultivation, although there are large tracts which, had they a continuous rainfall for a few months of the year, would be covered with crops, for in these portions the soil is good. The Somáli Coast Protectorate is not, as far as it has been explored, a well wooded or a densely jungle-covered country. Some of the eastern ranges and parts of the Golis mountains are well covered with vegetation and contain large trees. In other parts of the country too there is often found dense thorn jungle; but the general aspect of the country is open with scattered bush-mimosa trees.

The local terms given to the maritime plain, gháts, and high plateaux, are as follows:—

The maritime plain	"Guban"
Above the gháts	"Ogo".
Between these two	"Ogo-Gudan".
The waterless plateau between the Ogo and the Ogaden tribes below 8° 30' south latitude...	"The Haud".
South of that	"The Ogaden".

Area.

The area of the Protectorate may be very roughly estimated at about 75,000 square miles.

Climate.

There is no regular rainfall in the Protectorate. Inland there are occasionally heavy falls, and on the maritime plain a few inches generally fall between November and April. In the "Haud" there is usually fairly heavy rain about May and June. The climate of the country may be briefly described as very pleasant, though with a hot sun, for six months of the year, very hot in the plains for three or four months, especially when the strong "kharif" wind is blowing with clouds of dust and sand, and generally very healthy. During the cold season the range of temperature is great and the cold on the higher lands trying at night. The Somális seem to suffer more from the results of chills, due to insufficient clothing, than from any other complaints.

Chief staples.

The "principal productions" are gums, skins, hides, ghee and live-stock consisting of cattle, sheep and goats. Coffee, waras (bastard saffron), ivory, &c., pass through the Protectorate from remoter districts, but are not really products of the country.

Historical summary.

For the purposes of this section it is necessary to separate Zaila from Berbera Bulhar and the districts lying in the east of the Protectorate.

While the latter have always been independent territories in the possession of the Somáli tribes and have been recognized as such, Zaila though situated in the territory of the powerful Esa tribe has never been at any time an Esa town.

Zaila.

As far as is known, Zaila formerly called Avalites (whence the present Somáli name for the town Audal) was originally the capital of a large kingdom ruled by the Amirs of Abyssinia; its site then was on what is now the island of Saad-ud-din at the entrance of the harbour. About the year 1500 it fell into the hands of the Turks, and was again taken sixteen years later by the Portuguese. Subsequently, it became subject to the Prince of Sanaa and after the decay of that kingdom, passed under the sway of the Sharif of Mocha. In 1840 a commercial treaty was entered into with the Governor of Zaila by the British Government, by which the Governor, among other things, bound himself not to enter into any treaty or bond with any other European nation or person without bringing the same to the notice of the British Government. In 1848 the town was farmed out by the Turkish Governor of Mocha and Hodeida to one Haj Shermake, and continued to form part of the Turkish dominions until 1875, when it was ceded to Egypt by the Porte. It remained under the Egyptian Government until August 1884, when, owing to the troubles in the Soudan, it was decided to remove the Egyptian garrison from Harrar. In this month Zaila was occupied by a small British force consisting of half a camel battery, 50 sabres of the Aden Troop and 150 rank and file of the 4th Bombay Rifles. Lieutenant Peyton was appointed Vice-Consul. In November 1884 Major Hunter, then First Assistant Resident at Aden, who had been sent to Harrar in February of that year to report on the state of affairs there, submitted proposals for the future government of the province, involving the appointment as ruler of Abdillahi, a son of the last reigning Amir, and the withdrawal of the Egyptian troops. The proposals were approved, and two British officers were sent to Harrar to carry them out. They returned in June 1885, and shortly after that date the last detachment of the Egyptian garrison left Zaila.

Berbera and Bulhár.

These districts, as has been stated above, have always been independent and were recognized as such by the British Government as far back as 1827. In that year a man-of-war was sent to the coast to exact reprisals for the plundering of a British trading ship at Berbera. The elders of the tribes agreed to pay compensation for the losses caused by the robbers, and in addition entered into a treaty of peace and commerce, by which British vessels were to be allowed to trade at all their ports. In 1854 an expedition was sent to

POLITICAL.

TRIBUTARY STATES.

The Somáli Coast.

explore the territory between Berbera and Zanzibar. On the 18th April 1855 the party was suddenly attacked by Somális; two British officers were wounded, one was killed and the property of the expedition plundered. A demand was made on the Habr Awal tribe for the surrender of the chief offenders for punishment and the town of Berbera was blockaded. The blockade was subsequently raised on the Somális binding themselves by treaty to endeavour to secure the murderers, to allow free trade with their territory, to abolish traffic in slaves, and to treat with respect any British Agent deputed to see that the conditions of the treaty were observed. In 1873, the town of Berbera was occupied by the Egyptians and subsequently garrisoned by them. This occupation continued until 1884, when the Soudan troubles necessitated the withdrawal of the Egyptian troops. A commercial treaty was then made with the Habr Awal tribe, and, as at Zaila, a Vice-Consul and British Agent appointed to carry on the administration of the port. At first, a force of armed police was considered sufficient to support his authority, but in March 1885 it was considered advisable to garrison the place with a detachment of Native Infantry under a European officer. A small force has been maintained at Berbera ever since.

Principal events since 1884.

In February 1885, the establishment of a British Protectorate from Gubbet Khárab to Ras Galweni was formally communicated to France, and in July 1887 to the other Powers.

Shortly after the occupation customs dues were imposed at the ports, *viz.* one per cent. *ad valorem* on exports and five per cent. on imports, which are still in force. Cattle, sheep and goats are exported free of duty.

In the autumn of 1885 Major Hunter, First Assistant Resident at Aden, was appointed the first Political Agent, and Mr. Walsh, then Vice-Consul at Berbera, was appointed Assistant Resident and Political Agent. At Zaila the administration continued to be conducted by the political or military officers who filled the office of Vice-Consul, until December 1887, when a political officer was definitely placed in charge. This arrangement has been continued ever since.

At first the officers on the coast were engaged entirely in keeping order and endeavouring to foster trade. Criminal offences were dealt with in the spirit of the British Indian law, but there was no cognizance of civil cases. In 1886-87 the Assistant Resident at Berbera commenced the regular hearing of civil suits; his example was followed by the Assistant Resident at Zaila in the following year. The circumstances of the two towns were however different.

While Berbera was a purely British port under a British officer, the supreme authority at Zaila was divided. Until June 1888 the British, French, and Egyptian flags were flying side by side, and there were two Vice-Consular Courts, one English, the other French, administering justice among the inhabitants. In this month however this state of things, which had been the cause of some slight friction, came to an end. The French representative and flag were finally withdrawn; and three months later the Egyptian flag ceased to fly. Since then the jurisdiction of the British Courts at Zaila has not been disputed.

Dealings with the tribes.

In addition to the treaties, concluded with the Habr Awal in 1827 and 1884, a protectorate treaty was made in 1886. In the same year similar treaties were concluded with the Habr Toljaala, Habr Gerhajis and Warsingli. The three tribes last mentioned with the Gadabursi and Esa had also previously in 1884 concluded treaties, the principal provisions of which were that they were not to cede or sell their territory except to the British Government; they were to allow perfect freedom of trade, to protect British subjects and to abolish slavery. In 1885 it was found necessary to punish the Jibril Abukr section of the Habr Awal tribe for their repeated raids in the vicinity of the ports. A force was collected which invaded their country and carried off a large number of cattle and sheep. These were distributed among persons who had suffered at their hands. In 1887-88 the Ayyal Ahmed, to whom the port of Berbera may be said to have belonged formerly, gave considerable trouble. For continued raiding in the vicinity of the ports they were fined Rs. 1,000 and on their persisting in their bad conduct they were expelled from Berbera. On this they attempted to force their way into the town but were repulsed by the troops. They tendered their submission a few days afterwards and were re-admitted to favour on certain conditions. In 1889-90 the Momásan Esa, who had since the preceding year been at war with the Habr Awal, made a sudden attack by night on Bulhar, killing 67 persons besides wounding many others. In consequence of this, a small field force of some 300 native troops was despatched to the Esa country in January 1890 to inflict punishment on the tribes. The expedition was unable to bring the tribes to a general engagement though several small encounters took place. The Esa were however driven from the country, and sustained a severe loss in flocks and herds. They subsequently submitted and agreed to the terms imposed. In 1890-91 the Political Agent held a conference at Kabri Bahr in the Jibril Abukr country with the various tribes with a view to the establishment of a permanent peace. The representatives present swore to preserve the peace, and this promise, as far as the Esa and Habr Awal are concerned, has been strictly carried out. In this year however the Dolbahanta gave trouble by raiding in the vicinity of Berbera and Bulhar. As a consequence of this and other troubles a ten-mile limit was proclaimed round the ports within which all raiding was absolutely prohibited.

Military affairs.

Zaribas or fortified positions have been erected at Berbera and Zaila. The garrison at the ports now consists of a detachment of 50 Native Infantry at Berbera and 16 at Bulhar under a British officer, and one of about the same number also under a British officer at

Zaila. In addition there is a small camel corps of one Jamádár and 25 men armed with Snider rifles. The garrison in 1885-86 was about double the present numbers and comprised, in addition, a detachment of the Aden troop. These have however since been withdrawn. TRIBUTARY STATES. *The Somáli Coast.*

Various parts of the country have been surveyed since 1886, and some useful maps compiled. Dispensaries have been constructed and vaccination introduced at Zaila and Berbera. Various works of public utility have also been carried out at the ports. Miscellaneous.

THE SOMÁLI COAST.

Gross Revenue, Rs. 2,19,323.

The limits of the British protectorate remained unchanged. Cholera broke out in Harrar and parts of Abyssinia and killed many thousands. It spread to Zaila and Bulhar, where it proved fatal in many hundred cases; there were only 13 cases at Berbera. Despite many unfavourable circumstances, such as the cholera and the raids of the Abyssinians on the Ogaden, trade was fairly prosperous, and the revenue for the ports showed an increase. The town of Bulhar was destroyed by fire; but was rebuilt. A survey of the interior was successfully carried out during the year. A section of the Habr Gerhajis tribe made two raids in the neighbourhood of Bulhar; for which they were fined Rs. 500. As they refused to pay, the Political Agent and Consul proceeded against them with a military force to enforce payment. An affray between a section of the Habr Awal and the Esa gave rise to fears of a general intertribal war. To prevent this the Political Agent proceeded to the coast with a military force and made a settlement of the quarrel. The trade of Zaila continued to show a heavy falling off. The Esa Musa were induced to abandon the practice of levying transit duties on caravans. General.

Berbera-Bulhar.—The police force numbered 74, with 26 camel savárs. The total cost was Rs. 28,438 as against Rs. 27,599 in 1891-92. The number of criminal cases disposed of was 359 against 482 in 1891-92. They involved 627 persons, of whom 546 were convicted. Three cases were heard by the Political Agent, in two of which the accused were convicted. Seven appeals were preferred to the Political Agent, all of which were disposed of. Police and Criminal Justice.

Zaila.—There was no change in the number of the police during the year. Their cost was Rs. 9,185 against Rs. 8,782 in 1891-92. The number of offences was 70 as against 115 in 1891-92. Of 135 persons tried, all except 18 were convicted.

There were 372 admissions into the jails at the ports against 351 last year. Prisons.

The number of civil suits at Berbera-Bulhar rose from 210 in 1891-92 to 448; that at Zaila from 201 to 259. There were three appeals, all of which were rejected. Civil Justice.

There were 136 Native Infantry, distributed at Berbera, Bulhar and Zaila, during the year. Military.

At Berbera and Bulhar imports and exports showed an increase of Rs. 8,69,403 and Rs. 2,85,117 respectively; but there was a decrease of Rs. 74,487 and Rs. 4,70,364 at Zaila. The total imports and exports at Berbera and Bulhar were Rs. 25,45,016 and Rs. 19,11,064 respectively, as against Rs. 16,75,613 and Rs. 16,25,947; while those at Zaila were Rs. 12,04,464 and Rs. 13,98,228 as against Rs. 12,78,951 and Rs. 18,68,592. The number of steamers visiting Berbera and Bulhar during the year showed an increase of 100 as compared with that in 1891-92. The number of country craft, however, entered during the year fell from 1,435 to 819. At Zaila the arrivals and departures were 103 steamers and 233 country craft against 104 and 464 respectively in the previous year. The increase in the number of steamers was owing to the regularity with which the two competing companies at Aden despatched their boats. Trade.

Berbera-Bulhar.—The total revenue of the sub-division excluding receipts in the Military Department amounted to Rs. 1,59,032 as against Rs. 1,17,973 in 1891-92; while the expenditure, including Public Works and Military charges was Rs. 1,19,771 against Rs. 1,14,939. Revenue and Finance.

Zaila.—Corresponding figures for Zaila were Rs. 60,291 and Rs. 35,975 against Rs. 66,229 and Rs. 35,267. Rs. 72,735 were spent on Public Works and Rs. 62,728 on Military Works charges.

As stated above, cholera caused great havoc during the year. There were in all 1,208 seizures and 974 deaths. The number of patients treated at the Civil Dispensary at Berbera was 2,418. The number of vaccinations at Berbera was 1,008, of which 817 were known to be successful. Vaccination made little or no progress at Zaila. Medical Relief.

An attempt was made to find water on the caravan road between Zaila and Hensa by sinking a shaft eighty feet deep, but without result. A further attempt is to be made in 1893-94. Miscellaneous.

CHAPTER II.—ADMINISTRATION OF THE LAND.

Surveys.

GREAT TRIGONOMETRICAL SURVEY OF INDIA.

General.

There was one party belonging to the survey at work during the year in the Southern Marátha Country and portions of the Konkan. The work done consisted chiefly of a detail survey on the scale of 2" to a mile of country covering 2,721 square miles in the Southern Marátha Country and of triangulation in advance of the survey over 3,750 square miles in the Dhárwár and Ratnágiri districts and in the Native States of Kolhápur and Sávantvádi. The traversing of the trijunctions of village boundaries in British territory was effected over 1,700 square miles.

Cost.

The cost of the above operations was Rs. 81,235.

INDUS RIVERAIN DETACHMENT.

General.

The Government of India in July 1892 sanctioned a traverse and detail survey of both banks of the river Indus in the Province of Sind, with a line of adjacent villages limited to 1·5 miles on each side on the lines of the operations already carried out in the Punjáb in 1890-91. A survey party was consequently formed to carry out these orders. The main object kept in view was to show the course of the river as it existed at the time of the survey; the recognized deep-channel and all minor channels flowing at the time of the survey; all river embankments, canals, wells, roads, forest reserves and every conspicuous object (such as temples, mosques, &c.) in the proximity of the river. The party consisted of one Assistant Superintendent, 9 sub-surveyors and 3 clerks.

Field operations and duties.

The traverse work was begun on the 16th November 1892 in the neighbourhood of Kashmor on the Sind-Panjáb boundary, and was closed for the season on May 1st near Larkhána in Shikárpur district; while the detail topographical survey began in the middle of January and closed on the 18th May 1893.

Area of survey.

The direct length of the course of the river surveyed was 110 miles; and the total area traversed and topographically surveyed was 1,120 square miles.

Surveys of disputed boundaries.

Besides the above list the survey party was deputed to demarcate certain disputed boundaries between Sind and the Bahâwalpur State. Their instructions were to lay down areas and demarcate by masonry pillars the boundary fixed by the Sind Revenue Survey in 1856-57. These orders were satisfactorily carried out.

Cost.

Details are available to show the cost of the field operations only. These give a rate per square mile of Rs. 12-10 for the river survey and of Rs. 4-11 for the boundary survey exclusive of the cost of superintendence, which is included in the river survey rate.

TIDAL AND LEVELLING OPERATIONS.

Observatories.

No new tidal observatories were established, nor were any of the old ones closed during the year under review. Observations were continued at Aden, Karáchi, Bhávnagar, Apollo Bandar, Bombay and Prince's Dock, Bombay, and were in all cases very satisfactory. At Aden the year's observations were highly satisfactory. The Port officer's supervision of them was most efficient and the tidal observatory clerk performed his duties correctly. The piles supporting the observatory having been found to be very rotten, arrangements were made by the Port Trust to have them renewed. This was done satisfactorily without causing a gap in the observations. The spring regulator clock belonging to the tide gauge was thoroughly repaired in Poona and was again attached to the instrument in place of the pendulum clock which had been at work since July 1892, but the latter clock was left in the observatory as a reserve to be used in case of any accident occurring to the other. The tidal observations at Karáchi were also satisfactory throughout the year and particularly good during the latter half of it. The auxiliary meteorological observations were also very satisfactory. The Port Engineer continued his supervision of the work and in consequence of his excellent arrangements interruptions in the registrations were reduced to a minimum. As it was found that the tidal curves recorded were abnormal in shape, the ground round the observatory was cleared of mud and the cylinder thoroughly cleaned out. Since this operation the curves have been normal. The observatory was inspected in March and found to be in good order. At Bhávnagar, the tidal registrations were satisfactory throughout the year, the barometrical registrations were fairly satisfactory, and the anemometrical registrations very satisfactory. The observatory was inspected in March and reported to be in excellent order. The tidal observations at this place will be completed in January 1894. The observations at Apollo Bandar, Bombay,

were uninterrupted and practically perfect throughout the year. This gauge has been, it may be noted, working without an interruption since November 1886, except of course during the short intervals for cleaning at the annual inspections; and on such occasions the continuity of the curves has been preserved by taking supplementary personal observations. In February 1893, the old wooden observatory, which was quite dilapidated, was pulled down and a new observatory constructed in its place which was finished on 3rd April 1893. The gauge during this operation continued working regularly within a wooden casing made for its protection. The new observatory is a great improvement on the old one and well adapted for its purpose. A new graduated staff for comparing the level of the water inside and outside the cylinder was fixed against the Bandar wall to the west of the observatory; its length is 16 feet 3 inches, and its zero is 5 feet above the zero of the gauge or 75 feet above Town Hall Datum. At Prince's Dock, Bombay, the tidal observations continued to be very satisfactory on the whole, and apart from a break that occurred while the position of the tide gauge was being changed, the few short interruptions that took place were due to slight inherent faults in the design of the tide gauge, which were noticed in last Annual Report. The tide gauge was brought down from the top floor of the lighthouse to the bottom storey during the year, thereby dispensing with the employment of an objectionably long float-board. Observatory houses, iron float-cylinders, and other necessary articles were made in Bombay and forwarded to Muscat and Bushire during 1891-92. They were found to answer their purposes admirably, and the work was proceeding most satisfactorily at both those places throughout the year.

Tide Tables. The tide tables for the Indian Ports for the year 1893 arrived from London in two instalments, namely on the 23rd December 1892 and the 24th January 1893, and were at once distributed. They contained predictions for nine tidal observatories within the Governorship of Bombay, *viz.*:—for those at Aden, Karáchi, Okha Point, Port Albert Victor, Bhávnagar, Apollo Bandar, Bombay, Prince's Dock, Bombay, Mormugáo, and Kárwár.

Levelling operations. No levelling operations were in progress in the Bombay Presidency during the year.

REVENUE SURVEY.

Presidency Proper.

Parties at work. The three revenue surveys of Gujarát, the Deccan and the Konkan remained in existence till the close of the year, though large reductions were effected in the Deccan survey, with the partial completion of field operations. In the other surveys no diminution of strength was made. The party of the Survey of India, lent to the Bombay Government for forest survey, continued its operations under the general control of the Survey and Settlement Commissioner, who directly controlled the cadastral parties.

The following table shows the effective strength and outturn of work of the Revenue Survey Parties above referred to:—

Party.	Number of Parties.	Field Outturn	
		Measured.	Classed.
		Square miles.	Square miles.
Gujarát	6	41	829
Deccan	3	30	250
Konkan	14	389	214
Total ...	23	460	1,293
Total for 1891-92 ...	39	2,358	3,516

Gujarát Survey. The number of parties in the Gujarát survey was the same as in the previous year. One party carried on the valuation survey of Tálukdári estates, working in the Sánand, Viramgam, and Parántij tálukas of Ahmedábád. Up to the close of May the remaining 5 parties completed the revision measurement and classification of the Kaira district, leaving 5 months' work for one party for disposal after the monsoon. This (classing) party then joined the other two classing parties at head-quarters to dispose of arrears of classification recess work, while the two measuring parties took up revision measurement, sanctioned experimentally, in the Olpád and Bárdoli tálukas of Surat district early in November. The total cost of this survey came to Rs. 1,10,962, as against Rs. 1,83,085 last year.

Deccan Survey. The field parties of the Deccan survey averaged 3 as compared with 20 last year. At the close of the year the Superintendent remained with one European and 2 Native Assistants (Head Surveyors). Up to the monsoon there were 4 parties, two employed partly on original, and partly on revision measurement and classification in the Nandurbár táluka of Khándesh district; another party completed the revision classification of Jávli táluka of Satára district; and the fourth party carried on a stage further the revision of Peint táluka of Násik district, where for climatic reasons work must proceed by instalments. Afte the opening of the fair season one party was employed in recess work at head-quarters, while

the remaining two took up the original measurement of certain scattered villages of the Vinchurkar Jághir recently lapsed to Government in the Poona and Násik districts, and then repaired to Peint about the middle of January to prosecute the Peint revision. This survey had also to class certain Inám villages in the Bijápur district. The total cost fell from Rs. 2,26,116 to Rs. 90,096. The fall would have been greater, but that much delay occurred in the drafting of the excess men to other surveys and departments.

Konkan Survey.

In the Konkan Survey there was an increase of one in the number of the field parties, but the cost of the survey (Rs. 2,13,905) did not greatly exceed that of the previous year (Rs. 1,97,719), as two parties were employed after the monsoon in the Bhor and Janjira States, carrying on classification work there, which had been left in abeyance since 1886 and 1891 respectively, partly because the States had not completed details of measurement work left for their own officials, and partly because the Konkan Survey could not spare men for Native States. Before the monsoon 11 measuring parties worked in the marginally named tálukas of the Thána district. By the monsoon Kalyán was completed, and after the fair season opened work was also taken up in Máhim, Váda, Shaháp ur and Bassein. Measurement was by the end of the year (March 31st) not fully completed in any other táluka. It must be noticed that no work was done in the Kolába district, where the Roha táluka had been commenced in the previous year. This happened because the Thána work was more urgent and required considerable supplementary operations to reach the standard of completion required by the final orders of Government. The three classing parties completed the revision classification of the tálukas of Kalyán and Murbád, and one after the rains completed that of Bhiwndi and took up Salsette, while the other two, as has been stated, repaired to Bhor and Janjira, because in the British districts classing had advanced ahead of measurement. The Janjira work was nearly brought to completion, and that of Bhor made satisfactory progress. In this survey the 14 parties were supervised by six European Assistants, but to ensure proper test, each party was in immediate charge of a Native Surveyor, and two or more parties were linked together under the supervision of Europeans, a step made necessary by the paucity of the latter, which has, since the close of the year, been of similar necessity followed in the other surveys.

Murbád.
Kalyán.
Salsette.
Bhiwndi.

Bombay Forest Survey.

The Bombay Forest Survey Party of the Survey of India under a Deputy Superintendent carried on its work in all three forest circles. The following table shows the distribution and outturn of work:—

Circle.	District.	Táluka.	4" Triangulation.	4" Traverse.	4" Detail.	8" Triangulation.	8" Traverse.	8" Detail.	16" Triangulation.	16" Traverse.	16" Detail.	Remarks.
N. C.	North Thana.	Bassein... ...	...	...	...	...	...	13·24	...	...	...	
		Wada	...	...	...	105	...	...	...	...	...	
—	South Thana.	Bhiwndi ...	...	...	...	...	...	0·75	...	...	...	
								0·54				
								12·18				
C. C.	Poona ...	Haveli	...	...	...	...	...	60·75	...	...	...	
—	...	Junnar... ...	...	...	...	30 / 80	23	96·69	...	...	...	
—	...	Indápur ...	...	...	...	...	...	...	...	...	15·50	Indápur. Khed.
—	Sholápur ...	Karmala ...	...	...	...	...	...	...	...	...	6·0	9 3·35
S. C.	North Kanára	Supa	100 / 330	104 / 320	220	...	...	...	...	...	...	Bhimthadi & Mawal. 2·97 ·18
		Yellápur and Sirsi.	...	...	26·75	...	...	...	...	...	...	
		Karwár ...	140	...	...	...	...	...	...	...	...	
—	Kolába ...	Panvel	...	...	...	...	...	4·05	...	...	...	

A further table shows the amount of fair mapping done:—

Circle.	District.	Scale.	Number of Field Sections.	Number of Final Maps.	Remarks.
Northern Circle ...	North and South Thana ...	8"	38	19	Bassein and Bhiwndi Tálukas.
Central Circle ...	Poona	...	12	6	Haveli.
	Sholápur	16"	76	52	ndápur and (Karmála and Mádha).
Southern Circle ...	North Kánara	8"	4	6	Yellápur and Sirsi.
		4"	12		
		2"	6	2	Reduced by pentagraph from 4" fair drawa section.
Do.	Kolába	8"	38	19	Panvel Táluka.
			186	104	

The Forest Survey Party in Kánara was, concurrently with its initial object, engaged in preparing a topographical survey of this difficult forest-clad district. The work of the

season will fall into sheets Nos. 245 to 247. Work was also done in the Junnar táluka of Poona district which will fall into sheets 195 and 196 comprising the valley of Junnar west of the town, including the five historical forts of Shivner, Chavand, Judhar, Hadsar and Dhak. In the other parts of Poona and in Sholápur the survey dealt with babhul blocks, scattered or fringing the rivers.

The total cost of the Forest Party came to Rs. 68,821 as against Rs. 64,404 last year. The cost was thus distributed between the forest circles:— Expenditure.

	Rs.
Northern Circle	9,654
Central Circle	26,214
Southern Circle	32,953

The total expenditure on revenue surveys, exclusive of the pay and allowances of the Survey and Settlement Commissioner and his personal office, contrasted with that of the previous year, was as below:—

	Rs.
1891-92	5,56,919
1892-93	4,14,963

The expenditure of the year exceeded the estimate made in July 1891 by Rs. 47,000, the excess being wholly due to the unavoidable circumstance noticed above.

SIND.

During the year under report both original and revision survey operations were carried on: the work consisted of measurement (1) of Collector's numbers, (2) of land given out for cultivation, and (3) of 1st and 2nd class jághirs. The work mentioned in (1) and (2) was carried on in the undermentioned tálukas:— Measurement.

Karáchi Collectorate	Mirpur Sákro Táluka. Tatta Táluka.
Hyderabád Collectorate	Badin Táluka. Tando Bágo Táluka. Kandiaro Táluka. Moro Táluka. Guni Táluka. Shahdádpur Táluka. Mirpur Khas Táluka. Tando Allahyar Táluka. Sákrand Táluka. Hyderabád Táluka. Hála Táluka.
Shikárpur Collectorate	Shikárpur Táluka. Labdarya Táluka. Naushahro Abro Táluka. Kambar Táluka. Nasirábád Táluka. Mehar Táluka. Kakar Táluka. Rohri Táluka. Ghotki Táluka. Sukkur Táluka. Larkhána Táluka.
Upper Sind Frontier District ...	Thul Táluka. Káshmor Táluka. Jacobabád Táluka. Shahdádpur Táluka.

The work referred to in (3) was executed in the following tálukas:—

Karáchi Collectorate	Jati Táluka. Tatta Táluka. Sijáwal Táluka. Mirpur Sákro Táluka. Johi Táluka. Kotri Táluka. Dádú Táluka. Sehwan Táluka.
Hyderabád Collectorate	Badin Táluka. Guni Táluka. Moro Táluka. Hála Táluka. Kandiáro Táluka. Naushahro Táluka. Shahdádpur Táluka. Mirpur Khás Táluka. Tando Allahyar Táluka. Sákrand Táluka. Tando Bágo Táluka. Hyderabád Táluka.
Shikárpur Collectorate	Shikárpur Táluka. Naushahro Abro Táluka. Rohri Táluka. Ghotki Táluka. Sukkur Táluka. Rato-dero Táluka. Kambar Táluka. Lárkhána

	Mehar Táluka.
	Labdarya Táluka.
	Nasirábád Táluka.
Upper Sind Frontier District ...	Thul Táluka.
	Jacobabád Táluka.
Thar and Párkar District ...	Umarkot Táluka.

The entire area measured was as follows:—

	Nos.	Vaslas.	Acres.
Collector's numbers and land given out for cultivation ...	31,091	176,876	188,259
1st and 2nd class jághirs	28,519	121,216	125,419
Total ...	59,610	298,092	313,678

Classification.

No regular classification work was carried on during the year under report.

Expenditure.

The estimated and actual expenditure for the year were as follows:—

Budget Estimate	Rs.	89,075
Expenditure	"	81,626
Saving ...	"	7,449

Settlements.

Presidency Proper.

Financial results.

The following statement shows the settlements introduced in the financial year 1892-93 together with those introduced between the close of the financial and revenue years (1st April to 31st July). The latter have been included, because the revenue administration reports in the present compilation refer to them. The statement exhibits also the increased demand resulting from the settlements:—

District.	Name of Táluka.	No. of Villages.	Past collections.	Full assessment according to revision settlement.	Percentage. Increase.
	Gujarát Revenue Survey.				
Ahmedábád ...	Prántij	113	1,15,185	1,44,283	25·2
	Deccan Revenue Survey.				
Khándesh ...	Jalgaon	110	1,97,829	2,53,924	28·4
	Amalner *	6	2,050	2,871	40·0
	Páchora	217	2,84,299	3,66,213	28·8
	Sindkheda *	163	2,38,254	3,19,843	34·2
	Chopda *	1	24	78	225·0
Poona	Háveli *	80	33,366	42,661	27·8
Sholápur ...	Karmála	16	16,018	22,420	39·9
	Bársi	3	3,854	4,657	20·8
	Sángola *	70	81,386	1,01,408	24·6
	Pandharpur *	78	1,08,506	1,27,589	17·6
	Sholápur *	1	545	649	19·1
Sátára ...	Tásgaon	2	12,947	15,112	16·7
	Koregaon	59	1,41,399	1,87,018	32·2
	Wái*	92	89,338	1,14,283	28·0
	Konkan Revenue Survey.				
Kolába	Panvel*...	240	1,87,759	2,71,786	44·7
Ratnágiri ...	Devgad	123	88,079	1,41,249	60·3
	Total ...	1,374	16,00,838	21,16,044	32·2
	Add— Alienated Villages and Native States.				
	Alienated Villages.				
Poona ...	Khed	5	5,323	7,529	41·4
	Haveli*...	1	705	1,069	51·6
	Purandhar*	1	1,293	1,648	27·4
Sholápur ...	Sángola*	1	1,913	1,991	4·1
Ratnágiri ...	Devgad...	2	1,462	5,528	278·1
	Total ...	10	10,696	17,765	66·0
	Native States (Gujarát Revenue Survey.)				
Cambay ...	Cambay	84	3,24,104	3,79,489	17·1
	Total alienated villages and Native States...	94	3,34,800	3,97,254	18·6

In tálukas marked with an asterisk the settlements were introduced before the close of the revenue year ending 31st July 1893.

The settlement operations in the Gujarát Survey consisted of the introduction of the revision settlement into 113 villages of the Prántij Táluka of the Ahmedábád District. Gujarát Settlements.

The Prántij táluka of Ahmedábád was the last for revision settlement. It includes the Modása Mahál, and is the extreme north-east portion of British Gujarát. Both táluka proper and Mahál are surrounded by the territory of the Gaekwar or of States of Mahi Kántha or Rewa Kántha, but the Mahál is intersected also by foreign territory. Generally the tract is open and undulating, and is well watered by numerous rivers and streams. It has great irrigational facilities, and a large portion of Prántij is commanded by the Háthmati Canal. In places the surface springs are so close and plentiful that after rice two successive crops are taken off the land without artificial watering. The Mahál is less fertile and less naturally favoured than the táluka. It is also more backward, its population consisting principally of Kolis. The rainfall of Modása (35 inches) is heavier than in Prántij (28 inches). Communications have of late years been greatly improved, especially in the Mahál. There is still much land waiting for the plough. Immigration from the congested tracts of Kaira is increasing. The immigrants show no sign of permanent settlement, but cultivate, through the local agency, improved staples, of which tobacco is the most important. The carrying trade is mostly in the hands of Kaira cultivators. There is some manufacture of soap in Prántij, and oil-pressing is important in Modása. The irregularity of the former grouping of villages has made the revision grouping difficult, and though a step towards assimilation to survey principles has been effected, full assimilation must await the expiry of the new lease. In Prántij two groups have been formed, and in Modása three, with rates varying from Re. 1·2 to Re. 2·4, though only 11 villages of 113 have been rated above Re. 1-14 and only 4 below Re. 1·6. The increase of assessment reaches 25·2 per cent., an increase which is reasonable, despite the difficulty which has been experienced in the expired lease of collecting the then revenue with punctuality; for wells have greatly increased, and the revision settlement concedes to occupants full ownership in trees (among which the mahura and mango are numerous and valuable), save the royalty trees, teak, sandalwood, and blackwood. Prántij Taluka.

The introduction of the survey tenure was effected by the Gujarát survey into this State, which geographically belongs to the Kaira Collectorate. After many abortive attempts by the State to make its own settlement, chiefly no doubt prompted by apprehension that rates fixed by the British survey would be too great a sacrifice, and after the stern experience of a serious riot, largely induced by ignorance and cupidity on the part of the State officials entrusted with the settlement, the Gujarát survey was called in to make the land valuation and fix the rates in consultation with the special Political Agent. The result has been fully satisfactory. Financially, there resulted an increase of 17·1 per cent. on the old revenue. In area, the State is about equal to a fair-sized British táluka in Gujarát. Its communications are poor, but it benefits from the Gaekwar's railway from Petlád to Anand. It suffers much from defective surface drainage. The port of Cambay has fallen into unimportance. The former demand was uncertain and badly distributed. It trenched too greatly on private enterprize. Vexatious cesses have been abolished. Large areas of encroachments have been brought to account and assessed to the revenue. Steps have been inaugurated whereby the property in trees in occupied land, which now belongs to the Darbár, will gradually vest in the occupants. A small Local Fund cess has been instituted, of which the proceeds will be strictly devoted to local improvements. The dates of revenue instalments have been made more convenient to the cultivators. The settlement was well received. Cambay State.

The settlement work of the Deccan Revenue Survey comprised the introduction of revision survey rates into 898 villages of the Khándesh, Poona, Sholápur and Sátára districts. Deccan Settlements.

The Jalgaon táluka lies west of Bhusával and Jámner which were settled last year. It is bounded on the north and west by the Tápti and Girna rivers, and is intersected by the railway. For its size it enjoys a very large area of the magnificent soil of the Tápti valley, the richest in the delta between the two rivers. In the south-east it is hilly, but communications are throughout easy, not so much on account of good roads made for traffic, as on account of the facility for cart traffic along unmade tracks in the season when produce is taken to market. Road communication has nevertheless improved during the expired lease. Jalgaon itself is the chief cotton mart of the district and the centre of trade activity. More than half the area of the táluka is capable of growing and does grow cotton, wheat, and linseed, all exportable products. The rainfall is good on the average and seldom is injuriously deficient or unseasonable. At the date of the settlement there were 10 ginning factories and presses, and one spinning and weaving mill. Local industries are unimportant. The population is more dense than in any other Khándesh táluka, and has increased over 50 per cent. during the old lease of 30 years. The condition of the people is very good, and there can be no question that the enhanced demand, amounting to 28·4 per cent., will not check prosperity. The application of one maximum rate to all parts of the táluka has resulted in raising the percentage enhancement by a high figure in those villages which at the time of the old settlement were under-populated and backward in spite of natural advantages, and were rated very low to encourage immigration and enterprize. These conditions however no Jalgaon Táluka.

longer exist, and as the present survey will be the last of its kind, it has been necessary to place all the villages in the táluka once for all in their proper relative places in respect to each other. In the case of this táluka all the villages have been assessed at one uniform maximum rate, because no one group possesses any marked advantage over the others in respect of position, climate or communications. The revision survey brought the field record to date, and improved the comparative valuation of lands by applying the position class or in other words by raising the valuation of lands most favoured by position. The rate sanctioned was Rs. 3-4, which was the rate fixed for the better situated portions of Bhusával last year, and four annas more than the rate for the higher of the two groups of Jámner.

Amalner Táluka.

In Amalner the settlement of the past year was confined to the introduction of rates sanctioned in 1889 into six villages formerly belonging to Dhulia; in the extreme south-west of the táluka, which were not settled till 1862-63, and in which the 30 years' guarantee has only now expired. With these six villages the Amalner revision settlement is complete.

Páchora Táluka.

The Páchora with its sub-division, Bhadgaon, was dealt with very similarly to Jalgaon, in that it was rated throughout at a uniform maximum of Rs. 3-3, at which figure the enhancement came to 28·8 per cent. Like Jalgaon it is most favourably situated as regards rail communications, though, as also in Jalgaon, the railway to Bombay existed at the original settlement, and during the lease was only extended to Calcutta. Road communications exhibit a small improvement. Perhaps in point of rainfall and climate Páchora is a little inferior to Jalgaon. Its rainfall has a wide range and is not so certain. The Girna valley, of which Páchora includes a large area, is not so fertile as the Tápti valley, and if the early rain is too late for cotton, there is not so large an area as in Jalgaon on which wheat can be successfully grown in cotton soil. Moreover, some parts are feverish. The unbridged Girna is an obstacle to ready perennial communication with the rail, but on the other hand the trans-Girna villages are close to the large market of Dhulia. Well irrigation does not play a conspicuous part in cultivation in Páchora or in any part of East Khándesh. Páchora enjoys the area under command of the not very successful or trustworthy Jámda Canal. The material progress of the táluka during the expired lease, and the satisfactory condition of the cultivating classes prove full justification for the moderate enhancement of the Government demand, which arises principally from the equalization of the maximum rate and not at all from any raising of the highest rate of the former settlement. A remark may here be made which is applicable to the greater part of Khándesh, settled with or before Páchora, that the old settlements were introduced before or during the happy days of high prices during the American war. Then the clearance of waste land, ordinarily a very expensive and laborious operation, both by reason of the characteristic herbage, and extent of woodland, was repaid in a year or two out of immediate profits. It was this which, with the fair rates of the survey, so encouraged immigration and gave backward uncleared tracts such a successful start that they were soon not far behind the older settled villages.

Sindkheda Táluka.

The Sindkheda Táluka is the first of those of West Khándesh, after Amalner, for the introduction of the revision survey rates. It lies north-west of Amalner and north of Dhulia. Its northern boundary is the Tápti river. Unlike other tálukas of Khándesh recently resettled, the old grouping was not irregular and unjustifiable, and at revision the regrouping consisted in bringing into one group all the villages of the Tápti and Panjhra valleys, and into another those less favoured by climate and position, though nearer the Dhulia market. An exception was made for three hill villages on the extreme west, which were isolated and backward. The one-group system was, therefore, not applied to Sindkheda. The maximum for the higher group has been fixed at Rs. 2-12 and that for the lower group at 10 annas less. This higher rate is the same as that actually applied to Amalner, but that rate was kept down by the limitation rules. Sindkheda is the largest cotton-producing táluka of this cotton country, and in its extensive valleys much wheat is grown. Linseed and gingelly are important crops. The climate is good, and the rainfall, though uncertain and often late for the best results from cotton, is sufficiently abundant on an average to allow an extended area of wheat, especially in the valleys, when not good for cotton. It is this factor which is the chief justification for the lower rating of the southern villages. The condition of the cultivators is excellent. There is some irrigation from the Mukhti Canal, but the cultivation is essentially dry crop. There are three steam cotton gins. The táluka will be greatly benefited if the railway from Surat to Jalgaon is made.

Chopda Táluka.

In Chopda Táluka one isolated village was surveyed and brought under the survey tenure. The enhancement is nominal, for the maximum rate has been fixed at Re. 1 as against Re. 1-6 in the nearest settled village.

Poona District; Mulshi Petha, táluka Hávell.

This group of 80 villages is very nearly surrounded by territory of the Bhor State, and once belonged to the Máwal Táluka, which it resembles in climate and physical features. It is a tract of very heavy rainfall, where the better cereals, except rice, do not grow. It is rugged, with high hills which are spurs of the Western Gháts, but in the valleys it possesses stretches of fine rice land. It was brought under the survey tenure in 1858-54, at a time when the survey was in its infancy. The old work in so rugged and backward a tract was rough and defective. The revision settlement therefore demanded re-measurement and re-classification throughout. Its communications are very backward. Pand, the Mahálkari station, is connected with Poona by a metalled road. Little change has been made in the grouping for assessment. There are as before four groups, rated for rice at

Rs. 5 to 7 as against rates ranging from Rs. 3-8 to 5. Less change has been made in the dry-crop maximum rates, for the dry-crop is unimportant. It has been rated even lower than before in 34 and raised only in 7 villages which have the benefit of good communication with Poona. The dry-crop rates range from Re. 1 to Re. 1-8 now as before. But it must not be unnoticed that the extensive re-doing of old work has affected all villages, irrespectively of the maximum rates. The net enhancement reaches the comparatively large figure of 27·8 per cent. This enhancement is chiefly due to the increment taken for natural facility for conversion from dry-crop into rice land on the large area of new rice, and to the assessment of considerable areas treated erroneously at the old settlement as uncultivable.

Sholápur District: Bársi and Karmála Tálukas.

In the Sholápur District the details of the Bársi and Karmála tálukas were dealt with during the year. In Bársi, revision settlement was introduced into 3 villages, where the former lease had not expired when the revision settlement of the táluka was made in 1872. In Karmála the re-settlement dealt with 16 villages, of which the circumstances of 15 were peculiar. They lie in the extreme west and adjoin the Karjat táluka of the Ahmednagar District. On the south they border on the Bhima river. They were originally brought under the survey tenure as long ago as 1852-53, but fortuitously, though at the time belonging to the Karmála táluka, received the benefit of an extension of the lease which was granted to the Karjat villages with the object of giving more time to recover the effects of the famine of 1876. Though many possess the rich soil of the Bhima valley, their climate is, owing to precarious rainfall, unfavourable. They have been rated at 14 annas like the adjoining Karjat villages, but the lease will only lie for 20 years, so that it may determine with that granted in 1873-74 for the Karmála Táluka. One village of the Sholápur táluka (Ardhnári), which was transferred from the Pandharpur táluka after the introduction of revised rates into the Sholápur táluka, came in for re-settlement. The re-settlement of the tálukas of Pandharpur and Sangola has now been effected.

Sangola Táluka.

Sangola is surrounded on three sides by Native States. On the north it joins the Pandharpur táluka. It lies in a tract, the arid East Deccan, chronically liable to failure of rain and consequent distress. Its principal crop is the late or rabi crop, and this crop depends on the north-east monsoon, which does not always travel so far west. The soil is generally poor and shallow, so much so that in the group now rated at a maximum of Rs. 1-2 the average assessment per acre including garden is just over 4 annas. It is more suited for sheep pasture than for arable farming. Irrigation is valuable where available. The Mhásvad Tank commands a considerable area, and well irrigation is largely practised. The revision operations were simple, and in the direction of valuation tended to accentuate the difference between poor and good soils. The táluka is well provided with roads, and with a very markedly increased number of carts. It has no industries, but sheep grazing occupies many of the cultivators, and profitably utilizes much of the poorer lands in occupation. For assessment the villages are divided into four groups rated from 12 annas to Rs. 1·2, as against six groups at the first settlement with maximum rates ranging from 9 annas to Re. 1. The population is sparse (126 per square mile), though this is 50 per cent. more than at the former settlement.

Pandharpur Táluka.

The Pandharpur táluka lies to the north-east of Sangola. It is intersected by the Bhima river, and in the valley possesses some deep soil, but the most common soil is a red soil unretentive of moisture and suitable more for early rain crops than for rabi tillage. The country is undulating and very poorly wooded. The rainfall is better than in Sangola, both in average amount (28 inches as against 22) and in regularity, especially towards the north, but, as in Sangola, much depends on the north-east monsoon, which here is not trustworthy. Its cultivation, like that of Sangola, largely relies on irrigation from wells, but Pandharpur has a much larger area under command of the Mhásvad Canal and the Ashti Tank. The Pandharpur fair is one of the most important in the Deccan, and the agriculturists enjoy full benefit from the many roads radiating from this centre to all directions. The villages for revision assessment have been divided into two groups separated by the Bhima river, and rated at Rs. 1-4 and Rs. 1-2, the higher rate being applied to the north group, which is nearer the railway and has a slightly better rainfall. But for reasons analogous to those which ruled the decision regarding the 15 Karmála villages above noticed, 32 out of 37 villages of this group are to receive as remission the difference in assessment between that based on a rate of Rs. 1-4 and Rs. 1-2 for 15 years of the present lease, to give more time for recovery from the effects of the famine, with the provision that the remission shall be continued if the material progress during the 15 years and the course of prices are found to justify such continuance. These villages were subjected to revision settlement in 1872-73 with the villages of the Mádha Táluka, to which they had previously belonged, and have come in for re-revision 10 years earlier than their neighbours in Mádha. In the case of the Karmála villages the revision was delayed. There was then this difference in treatment, but in now permitting the remission noticed, the treatment of both groups (in Karmála and Pandharpur) is analogous in its practical effect.

Sátára District: Tásgaon Táluka.

In Tásgaon one of the villages included in the sanction of 1887, when the bulk of the táluka was re-settled, was re-settled during the year on the expiry of the lease; while another, which lapsed to Government in 1883, was similarly re-settled.

Koregaon Táluka.

The Koregaon táluka lies wholly in what is called the transition tract of the district, *i.e.*, between the hilly uplands of the west, where the rainfall is heavy, and the high plateaux of the

east, in which the rain is often scanty and always uncertain. It is separated from the Khatáv Táluka on the east by a range of hills, and enjoys a large area of the valleys of the Krishna and its tributaries. It is well supplied therefore with water, and has extensive facilities for irrigation from streams, which are much utilized. Its climate is good. It is traversed from north to south by the railway, opened in 1887. Koregaon was well advanced at the time of the introduction of the original survey. Even at that time the condition of the táluka permitted the full application of the principles of the survey settlement, and the present revision does not call for considerations in fixing the revised demand, other than those based on the material progress made during the old lease, and the course of prices. A slight modification in the old grouping is entailed by the presence of the railway. Three groups have been made into two. The lower group contains the villages abutting on the hills in the east and north, where communications are somewhat difficult and the rainfall somewhat less certain. The soil of these villages is greatly inferior in comparison with that of the valley villages. The enhancement arrived at comes to 32·2 per cent., but about 7 per cent. of this enhancement is attributable to the charge made for the use of water belonging to Government. This charge though outside the necessary scope of revision has been limited by analogy with the revision limitations fixed by the State landlord to ensure the least possible disturbance of existing conditions. The two groups have been rated at Rs. 3-8 and Rs. 3 respectively.

Wái Táluka.

The Wái táluka is the north-west táluka of the Sátára District. It is divided into two parts, the northern portion forming the Khandála Petha under a Mahálkari, which is separated from the táluka proper by a range of hills. Wái is bounded on the east by Koregaon. The eastern portions are open and enjoy a sure rainfall, which is not too heavy for the best kinds of dry-crop cultivation; but the western villages are rugged, inaccessible and hilly with a heavy rainfall favouring extensive rice cultivation but allowing only the poorer kinds of hill grains in dry-crop. The rainfall is somewhat precarious in the Khandála Petha, averaging about 21 inches at Khandála as against 32 inches at Wái. Communications have been considerably improved during the expired lease. The petha has now an excellent road to Poona and the táluka also a similar road to the railway at Wathár. The railway itself is only 19 miles from Wái. There is also direct communication *viâ* Mahábaleshvar to the coast at Mahád, but the táluka west of Wái has no made road. The diversity of the tract has necessitated an unusually large number of assessment groups. The petha has been divided into three groups rated for dry-crop from Rs. 2 to 2-8 and for rice land at Rs. 10. The táluka proper has no less than 7 groups with dry-crop rates ranging from Rs. 1-1 to Rs. 3-4; the rice land maxima varying from Rs. 6-8 to Rs. 10. This grouping makes full allowance where necessary, on the one hand, for precariousness of rainfall and on the other for difficulty of communications. The utilization of streams for irrigation has shown marked progress and the facilities are considerable. The proximity of the hill station of Mahábaleshvar is of much importance to the cultivators in the western villages, while the less important, though rising, sanitarium of Pánchgani is within the limits of the táluka.

Konkan settlements.

The settlement work of the Konkan Revenue Survey comprised the introduction of revision rates into 363 villages of the Kolába and Ratnágiri districts.

Kolába District: Panvel Táluka.

The táluka, as now constituted, is made up of the major part of old Panvel and of old Taloja, with the whole of the Uran Petha of old Salsette, which includes Elephanta and Hog Island, lying in the Bombay Harbour. It was transferred from Thána to Kolába in 1883. It adjoins Sálsette on the north-west, Kalyán on the north, Karjat (settled in 1889 as part of Thána, but since transferred to Kolába) on the east, and Pen on the south. It is separated from Karjat by lofty hills parallel to which is another range bisecting the táluka. Between them lies the Patálganga valley. West of the range skirting this valley the táluka is a level plain composed largely of land reclaimed from the sea, while still further west lie the island groups of the Uran Petha. It is fairly provided with roads, but its most important communications are the water-ways, afforded by navigable creeks, which give facilities for the export of produce to Bombay not surpassed by those of even Sálsette. Though the original survey of Taloja followed that of Panvel with an interval of one year, the old work in Panvel was too faulty to be accepted. The classification was therefore re-done except in Taloja and Uran; but even in them the former valuation was raised to present standard by taking into account the additional increment reasonably exacted for facilities for taking an after-crop of pulses in rice land. Even in measurement much was required at revision, for the varkas or ordinary dry-crop had only been roughly dealt with before and had not been divided into occupancies. Though rice land is the main-stay of the táluka, the dry-crop has become important as a grass producer for the Bombay market. This demand for grass, so easily transported in bulk to Bombay under shelter, and the proximity of the táluka to Bombay, have revolutionised the conditions of ownership since the original settlement. The dry-crop land has now a real agricultural value, and the revision of Panvel marks a departure from the old system of treating such land simply as an adjunct to rice land to provide grass and brushwood to burn on the seedbeds as a quickly acting manure, not liable to be washed out of the soil during the first heavy burst of the monsoon, and best suited to stimulate a rapid growth of seedlings to be ready for early transplantation, so as to secure early ripening before the closure of the short south-west monsoon. With the previous sanction of the Secretary of State the limitations of enhancement in dry-crop lands, necessarily resulting from the requisite treatment of such

lands, were relaxed. The revision settlement has substituted three groups for assessment purposes in lieu of 10. The maximum rates on rice land ranged from Rs. 4 to Rs. 8. It is now Rs. 6, 7 and 7½ for the three groups. These rates refer to sweet rice only. The rates for salt rice, *i.e.*, rice grown in reclaimed land, chiefly vary, as is requisite, with the degree of exposure to the influences of tidal inundations rather than with the facilities of communication. The salt rice rates varied from Rs. 4 to 5 and are now fixed from Rs. 5 to 5¼. The dry-crop maximum rates have been placed at Rs. 2½, 3½ and 4 for the three groups. The former rates varied from Re. 1 to Rs. 8. It was not considered right to continue the excessively high rating in Uran, where the former rating was imposed at a period 10 years later than in old Panvel and Taloja.

Ratnágiri District: Devgad Táluka.

The survey settlement of the Devgad táluka completes the work of the revenue survey in the Ratnágiri district. It lies between the Málwan and Rájápur tálukas settled in 1883 and 1890 respectively. Its eastern boundary is formed by the Sahyádri range, and on the south-east is situated the Sávantvádi State. The táluka possesses an extensive seaboard, with good harbours at Vijaidurg and Devgad. Several creeks and estuaries are navigable by small craft for considerable distances inland, thereby affording special facilities for the import and export of produce. The Weghotna river, at the mouth of which is the Vijaidurg harbour, is navigable as far as Kharepátan, through which passes the Phonda Ghát road which connects Kolhápur with the sea. Other roads are less important, and in parts the difficulties of communication are considerable. The climate is good and the rainfall sure, and sufficient for unfailing annual crops of continuous rice. There is some irrigation from streams in the interior, and some cultivation of cocoanut on the coast and along the creeks. The dry-crop is in places very good, for nearly one per cent. has been classed as "rabi" or superior dry-crop, and 10 per cent. of the ordinary dry-crop (varkas) as superior varkas. The rice land also is not inferior in comparison with that found in neighbouring tálukas. In area it is comparatively smaller, but in quality better than in Sangameshwar and Rájápur. The population (237 to the square mile) is sparse for a Ratnágiri táluka, but there are still 389 persons to the square mile of cultivable area, and large immigrations take place to the Bombay labour market, when agricultural occupation is not available. In character the population is inferior, for education is backward, and the proportion of Kunbis small in comparison with the Maráthás, who are less patient and skilful cultivators. Devgad is a Khoti stronghold, only 16 per cent. of the villages being "Dhárekári" where the occupants are directly tenants of the Government, though in an equal number of villages, the occupants, though the village is under Khoti tenure, have the rights of Dhárekáris. The settlement has been carried out on the same lines as that of Rájápur, but with the strikingly different result that whereas in the latter táluka a marked decrease of the Government demand was made, in the former the demand has, in comparison with average collections, largely increased. The explanation is that till now the demand has been levied on the area cultivated in the time of the Peshwas. Without gross injustice no change was possible till the preliminaries of regular measurement and valuation of every field were completed. These operations have from various causes been greatly prolonged. During the long period of 73 years the Khots and Dhárekáris have enjoyed the full benefit of rapidly increased cultivation, and though the increased demand will be taken gradually, and though in time the Khots and rayats will benefit from the fair apportionment of the demand, and the other benefits of the survey tenure, or at all events the restricted Khoti tenure, there cannot but be temporary disturbance in existing arrangements between Khot and tenant, and between Dhárekáris and their tenants, which may require temporary re-adjustment with the aid of the State landlord. The settlement shows an enhanced demand of 60·3 per cent., *i.e.*, Rs. 1,41,249 as compared with average collections (Rs. 88,079) for ten years previous, though the full demand will not be realized for six years.

General results.

The settlements effected during the financial year have resulted in a yearly enhancement of revenue of Rs. 2,76,087 or 32·1 per cent. in British villages and of Rs. 6,272 or 92·4 per cent. in alienated villages.

Expenditure on revision settlement operations.

The result of all revision settlement operations up to the present time has been to increase the annual revenue demand by Rs. 31,30,483 or 33·1 per cent. on the former revenue. The cost of operation has been Rs. 52,37,864.

SIND.

During the year under report proposals for the irrigational settlement of the undermentioned tálukas were submitted:—

Karáchi Collectorate...	...	Portion of Dádú Táluka.
Shikárpur „ ...	...	Labdarya Táluka. Mehar Táluka. Kakar Táluka.
Thar and Parkar District	...	Umarkot Táluka. Sanghar Táluka. Khipro Táluka.
Upper Sind Frontier District	...	Káshmor Táluka.

and the new rates were sanctioned by Government for the Lárkhána, Labdarya, Mehar, Kakar and portion of Dádú tálukas.

General.

ALIENATION SETTLEMENTS.

In the districts of the Northern Division the enquiries have been completed and of the 53 sanads that remained to be issued at the end of 1891-92, 13 were issued during the year under review. In 4 cases which turned up during the year in the Kaira district, sanads were issued. Materials for the preparation of the remainder were collected, but their issue was delayed in many cases by the difficulty of communicating with alienees living in foreign territory and by questions having arisen regarding the details to be entered in the sanads. In the Central Division 1,233 sanads were issued during the year and 2,090 remained to be issued at the end. Of these 1,967 belonged to the Sátára district and related to the inám lands of Sanadi Gadkaris. Their issue was generally delayed, either by the alienee refusing to accede to the terms, imposed or by the necessity of deciding certain questions connected with forest rights or revised survey rates, or by doubts having arisen as to the validity of the alienee's title. In the Southern Division 211 sanads were issued during the year, of which 210 were issued by the special officer appointed to make enquiries in the Ratnágiri district. There were also in this district at the end of the year 349 new and 764 revised sanads under preparation, while 81 revised sanads relating to cash allowances and 282 sanads connected with allowances to district hereditary officers and village servants remained to be issued, and enquiries were pending in 5 cases of land ináms which were to be converted into cash allowances. A special officer was also appointed for the work of enquiry in the Kolába district during a part of the year and completed the preparation of 90 sanads. In Bijápur and Kánara all the sanads had been issued by the end of the year, and the arrears in the Belgaum and Dhárwár districts were very small. In the whole Presidency 1,457 sanads were issued during the year.

Collection of Land Revenue.

Information respecting the amount of land revenue collected in the Presidency during the year 1892-93 will be found in Chapter V of this report. The following table, compiled from the Collectors' administration reports, exhibits the number of occupancies in each district and the number of distraints levied for the collection of the year's revenue:—

Division.	District.	Number of Occupancies.		Number of Distraints.	
		1891-92.*	1892-93.	1891-92.*	1892-93.
Sind	Thar and Párkar	25,708	29,279	2	2
	Shikárpur	57,846	60,823	55	1
	Hyderábád	29,016	30,336	211	93
	Upper Sind Frontier	2,963	3,025	149	39
	Karáchi	17,101	20,429	1,694	5
	Total ...	132,634	143,892	2,111	140
Northern Division.	Broach	49,900	49,959	6	16
	Ahmedábád...	63,104	64,441	25	25
	Panch Mahals	27,055	27,428	8	4
	Kaira...	113,837	112,581	13	13
	Surat...	76,094	76,440	19	2
	Thána	67,961	67,742	59	120
	Total ...	397,951	398,591	130	180
Central Division ...	Khándesh	136,120	136,423	29	40
	Násik	73,018	72,262	.....	5
	Sholápur	47,161	46,813	.....	2
	Poona	69,982	70,277	.....	.....
	Sátára	79,640	80,647	19	.....
	Ahmednagar	71,850	71,877	7	.....
	Total ...	477,771	478,299	55	47
Southern Division.	Belgaum	50,935	51,216	1	2
	Dhárwár	80,518	80,560	1	3
	Ratnágiri	132,422	142,785	120	118
	Kánara	33,355	33,813	9	9
	Kolába	58,809	58,283	4	4
	Bijápur	80,864	79,842	22	313
	Total ...	436,903	446,499	157	449
	Grand Total ...	1,445,259	14,67,281	2,453	816

* These figures differ in places from those in the report for 1891-92 owing to subsequent corrections having been made.

From the above table it will be seen that there has been a rise in the total number of occupancies extending to seventeen districts out of twenty-three. In two cases, Ahmedábád and Ratnágiri, this increase was due in some degree to a special cause, namely, to the subdivision of

occupancies at the cultivators' request and to the inclusion of fresh areas on the introduction of the revision survey, but generally speaking it was attributable to the favourable character of the season. This was more especially the case in Sind where the abnormally heavy rainfall combined with floods from the river Indus left an unusually large area fit for rabi cultivation. Notwithstanding the increase in the number of occupancies, the number of distraints was little more than a third of that of the previous year, a fact which, when it is remembered that the figures for the latter year were less than a half of those for 1890-91, and that during the past two years the amount of revenue to be collected in several districts has been considerably enhanced by the introduction of revision settlements, speaks volumes for the elasticity of the cultivators' resources. Taking the districts separately, it appears that the number of distraints diminished in every district but seven and that in five of these the increase was so small as to be not worth notice. Of the remaining two, that in Thána was mainly due to the levy of building fines from persons generally belonging to the non-agriculturist classes, and that in Bijápur to the fact that no compulsory processes for the recovery of revenue had been adopted in the previous year owing to the famine and that in the year under review there were considerable arrears of revenue for the previous year to be collected in addition to the ordinary year's revenue. The results of the year therefore show that notwithstanding an enhanced demand, the revenue was collected with exceptional facility; they must be regarded therefore as remarkably satisfactory.

Waste Lands.

The following statistics respecting the waste lands of the Presidency, taken from the Collectors' administration reports, cannot in all cases, especially where the survey is still incomplete, be relied on as perfectly accurate. This remark applies specially in the case of Sind.

The following table shows the state and extension of cultivation during the year 1892-93 in the various districts of the Northern Division:— Northern Division

Districts.	Total culturable area.	Actually cultivated.	Thrown out of cultivation.	Balance culturable waste.	Area newly taken up during the year.
	Acres.	Acres.	Acres.	Acres.	Acres.
Ahmedábád	1,517,556	1,455,771	6,172	61,785	12,623
Kaira	486,048	421,522	1,914	64,526	6,856
Panch Maháls	351,125	265,540	2,450	85,585	Unknown.
Broach	492,879	471,177	105	21,702	2,055
Surat	688,137	651,376	817	36,761	395
Thána	899,243	848,375	17	50,868	2,884
Total ...	4,434,988	4,113,761	11,475	321,227	24,813

The total culturable area shows a considerable decrease which is most noticeable in the districts of Ahmedábád and the Panch Maháls. The decrease in the Ahmedábád district was small and due to the assignment of land for public purposes in some tálukas and to corrections in areas made in the course of the revision survey. That in the Panch Maháls was entirely due to extensions of the area under forests. In Thána there was an increase owing to the grant for cultivation of land hitherto classed as waste in the Sálsette and Dáhánu tálukas. The area actually cultivated shows a considerable increase, due generally to the favourable season and specially in Thána to the grant of lands above mentioned. The area of culturable waste diminished in every district except Thána owing to the expansion of cultivation; in Thána however there was increase of 7,015 acres under this head owing to the expiry of the period for which certain waste lands were granted on special leases.

The corresponding figures for the Central Division are given below:— Central Division.

Districts.	Total culturable area.	Actually cultivated.	Thrown out of cultivation.	Balance culturable waste.	Area newly taken up during the year.
	Acres.	Acres.	Acres.	Acres.	Acres.
Násik	2,145,447	2,079,880	2,329	65,567	13,596
Khándesh	3,623,597	3,232,656	4,060	390,941	13,090
Ahmednagar	2,589,003	2,544,088	399	44,965	7,447
Poona	2,508,217	2,496,098	1,081	12,119	6,775
Sholápur...	2,168,950	2,152,187	.....	16,763	1,539
Sátára	1,511,617	1,486,528	209	25,089	2,504
Total ...	14,546,831	13,991,387	8,078	555,444	44,951

There has been an increase in the total culturable area due to the lapse of the Vinchur Saranjám in Násik and Khándesh, to the classing of land, formerly entered as unculturable, as culturable in the latter district and to the disafforestment of certain areas in Khándesh and Ahmednagar. The area actually cultivated also increased owing to the unusually good rainfall.

Southern Division.

The areas for the Southern Division are as follows :—

Districts.	Total culturable area.	Actually cultivated.	Thrown out of cultivation.	Balance culturable waste.	Area newly taken up during the year.
	Acres.	Acres.	Acres.	Acres.	Acres.
Belgaum...	1,213,142	1,160,453	220	52,689	3,128
Dharwár...	1,612,397	1,565,047	270	47,350	436
Kánara...	384,729	326,235	665	58,494	2,553
Bijapur...	2,183,346	2,113,635	235	69,711	2,491
Ratnágiri	1,644,699	1,640,893	1,266	3,806	331
Kolába...	706,340	702,005	182	4,335	323
Total ...	7,744,653	7,508,268	2,828	236,385	9,262

There is an increase in the total culturable area but the only place where it is at all large is in Ratnágiri, where it is due to the inclusion of the area of Devgad táluka of which the revision survey has recently been completed. The area actually cultivated also shows an increase owing to the same cause.

Sind.

Similar statistics are not available for Sind owing to the incompleteness of the survey. From information forthcoming, however, it appears that in the Karáchi, Hyderábád, Shikárpur and Thar and Párkar districts there was a very large extension of cultivation owing to the unusually heavy floods of the year. The area cultivated in the Shikárpur district was by far the largest ever known, the nearest to it being the area of 1878-79, the famous flood year, when however it was over 80,000 acres below the area of the year under review.

Government Estates.

There is nothing to record under this head.

Wards' and other Estates under the management of Government.

In the Ahmedábád district all, and in the Kaira and Broach districts, most of the estates of the above description were under the management of the Tálukdári Settlement Officer. In all the other districts, such estates were under the management of Collectors with the exception of one estate in Belgaum which was managed by a Mámlatdár under the orders of the District Judge, and one in Thar and Párkar by a Deputy Collector under similar orders. Exclusive of the encumbered estates in Sind which are separately dealt with below, there were 83 estates of minors and other under management during the year with an approximate area of 151,892 acres.

Estates in charge of the Tálukdári Settlement Officer.

Estates in charge.

The following table shows the total number and revenue of estates of all descriptions under management and of the tálukdári villages in Ahmedábád under revenue charge of the Tálukdári Settlement Officer in the year under report and the preceding year.

	Number.		Aggregate Revenue for collection.		Amount realized by sale under decrees.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
			Rs	Rs.	Rs. a. p.	
Ahmedábád Tálukdárs under Act VI of 1862	60	59	76,050	95,602	...	...
Ahmedábád Tálukdárs removed from Act VI of 1862, but continued under management	7	6				
Kaira Thákors under Act XXI of 1881	46	42	73,401	81,248	...	...
Broach Thákors under Act XXI of 1881	7	7	58,558	59,495	...	...
Minors' Estates under Act VIII of 1890	54	55	68,333	85,071	...	...
Miscellaneous Estates managed by agreements of owners and under Act VI of 1888	18	19	2,08,586	2,09,661	...	...
Estates managed under attachment for default, &c., Section 144, Land Revenue Code	12	10	82,353	78,941	...	...
Estates—						
(a) Managed under Section 320, Civil Procedure Code	241	294	71,654	87,946	...	...
(b) Under process of sale	135	102	...	...	6 4 0	...
Estates managed under Section 504, Civil Procedure Code	7	6	3,231	4,448	...	...
Total ...	584	600	6,42,166	6,96,407	6 4 0	...
Tálukdári villages under revenue charge	357	357	3,81,589	3,73,973	...	...

Ahmedábád Tálukdárs' Estates.

The number of estates under management under Act VI of 1862 was, at the beginning of 1892-93, 59. The debts of the estates of Báwámia Rámbhai and Sardármia Rájbha of Aniáli Kasbati and Bubáwáv having been paid off, these estates were released from management. No other estate was freed from debt during the year, and the number still remaining under the operation of the Act was therefore 57. The number of estates released from management under the Act, but remaining under management on account of indebtedness to Government, was, at the beginning of the year, 6. During the year the estate of Bhavsing Rawábhai of Dumáli liquidated its debt and was released. There were therefore 5 estates still under management for debts due to Government. The balance of debt amounted to Rs. 7,768-12-0. Of the estates

under management at the end of the year, 30 were managed directly by the Tálukdári Settlement Officer, 29 by the Tálukdárs under his supervision, and 3 by creditors under special arrangements. During the year Rs. 43,385 were paid towards reduction of debt and Rs. 6,931 as interest on loans, and the balance unpaid amounted to Rs. 2,68,775. The average payment for the year under report was 16·1 per cent. of the total sum due, and the reduction of debt was 13·8 per cent. of the same. The corresponding percentages in the previous year were 12·31 and 10. The result of the year's transactions may therefore be regarded as satisfactory.

Kaira Thákors' Estates.

The number of estates managed under Act XXI of 1881 at the beginning of 1892-93 was 42. During the year four estates paid off their debts, and their release from the operation of the Act was about to be notified at the end of the year. Thirty-eight estates remained under management. No advance was taken from the Government treasury during the year under report. A sum of Rs. 213 was paid to private creditors and Rs. 31,936 to Government, and a sum of Rs. 1,57,356 remained to be paid, of which Rs. 6,091 were due to private creditors and Rs. 1,51,265 to Government. The average payment for the year under report was 17·7 per cent. of the amount due at the commencement of the year, and the percentage of reduction of debt was 13·15. The corresponding figures for the previous year were 13·83 and 9·17. The results of the year's management were therefore satisfactory.

Broach Thákors' Estates.

The number of estates under management under Act XXI of 1881 was at the beginning of the year under report 7. Two estates paid off their debt during the year, and were released from management. Five estates still remained under the Act. No advance was taken from the Government treasury during the year under report. During the year under review a sum of Rs. 2,717 was paid to private creditors and Rs. 24,604 to Government, and a total sum of Rs. 38,568 remained to be paid, of which Rs. 27,899 were due to private creditors and Rs. 10,669 to Government. The average percentage of payment was 42·4 and that of reduction of debt was 40·1. These percentages were very considerably higher than the corresponding percentages of the previous year. All the estates in the Broach District were in a satisfactory condition and were making progress towards freedom from debt.

Minors' Estates under Act VIII of 1890.

At the close of the previous year there were 54 minors' estates under management. During the year under report the estates of three minors were released on their owners attaining majority. Two new estates came under management. The total number of minors' estates under the control at the end of the year was therefore 53. The total realizations during the year under report amounted to Rs. 1,01,654 as against Rs. 97,729 in 1891-92. Including the balances in hand at the commencement of the year, the figures were Rs. 2,94,384 and Rs. 2,45,691. Out of the year's revenue Rs. 64,308 were expended on Government *jama*, maintenance and other charges, while Rs. 6,152 were paid to creditors and Rs. 31,194 were carried over as surplus balance. The total amount invested in Government securities was Rs. 49,000. Rs. 91,000 were invested in landed property and there was a cash balance of Rs. 83,924.

Miscellaneous Estates.

There were 18 miscellaneous estates, of which 8 were in Ahmedábád, 8 in Kaira and 2 in Broach under the management of the Tálukdári Settlement Officer during the year.

Education of Minors.

The young Thákor of Utelia, who was the only Gujarát Tálukdár attending the Rájkumar College, was again well reported on by the school authorities. The number of boys attending the Wadhwán Grássia school was 10 as against 11 at this time last year. All the boys attending the Wadhwán school received good reports during the year. Attention was as usual paid to the education of minors who were unable to afford to join the Grássia school at Wadhwán. Almost all those who were of an age to go to school, and who were not so old that they have already begun to work for their living, attended the schools in their villages.

Revision Survey and Settlement.

During the year under report the revision survey of the villages in the Viramgám táluka was finished and that of the Mehwási villages in Parántij and Modása taken in hand and completed. No more work remained to be done in the Ahmedábád District.

Suits.

Thirty-one original suits and appeals (including those suits decided in the year but carried on by appeals preferred in them and including also three previous appeals and one remanded suit) were pending at the beginning of the year. Twenty-two new suits were added during the year, making a total of 53. Of these 19 were finally decided by the Courts during the year.

Financial review.

The following abstract gives the financial results of the management of the estates for the year under report:—

	Number of Estates.	Gross Revenue including previous year's outstanding balances.	Total Revenue realized, including past year's balances in hand.	Charges of all kinds.						Paid to Creditors.	Balance in hand at the close of the year.	Outstanding balances written off.	Outstanding balances at the close of the year.
				Government dues.	Collection, &c., charges in the Tálukas.	Tálukdári Settlement Officer and Establishment charges.	Maintenance, education and other expenses of Tálukdárs.	Miscellaneous.	Total.				
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Estates under Encumbered Estates Acts ...	114	2,56,755	3,13,913	54,181	11,767	6,161	61,591	6,766	1,40,466	1,02,260	64,191	2,904	18,027
All other Estates under management	486	5,03,111	8,17,775	1,43,839	28,324	12,224	90,757	91,333	3,66,477	72,689	3,78,600	7,184	48,285
Total ...	600	7,59,866	11,31,688	1,98,020	40,091	18,385	1,52,348	98,099	5,06,943	1,81,954	4,42,791	10,088	66,312

The percentage of collections to gross realizable revenue in the Ahmedábád District was slightly and in Kaira and Broach very considerably higher than in 1891-92. The proportion of remissions was in all the districts very low. The percentage of outstanding balances in Ahmedábád was somewhat higher than it was in the previous year, but in Kaira and Broach the proportion decreased by 10·2 per cent. and 15·4 per cent. respectively. These figures were, on the whole, decidedly satisfactory, especially as regards the Broach and Kaira Districts, where the season was more favourable than in Ahmedábád. The amounts remitted during the year under report were in all three districts considerably less than in the previous year. In Ahmedábád the remissions amounted to Rs. 8,217, of which sum Rs. 4,022 were chiefly on account of the Koth estate, and Rs. 2,678 on account of certain estates in Viramgám where the remissions were granted to the owners of the property themselves. In the Kaira and Broach Districts the sums remitted were so small as to call for no remark.

Working of the Gujarát Tálukdárs' Act VI of 1888.

The Gujarát Tálukdár's Act, 1888, continued to work smoothly throughout the year. The section of the Act most utilized is section 31 which relates to the regulation of borrowing transactions. During the year under report sanction was given to the borrowing by Tálukdárs of a sum of Rs. 4,86,811 against Rs. 1,63,916 in the previous year. Private sales of portions of estates, both parties to the transaction being Tálukdárs, were sanctioned in two cases; in a third case sanction was accorded to the sale of a village by a Tálukdár to a wealthy Bombay merchant.

Tálukdárs' Jubilee Memorial Fund.

The amount of this fund in hand was Rs. 22,415-10-2. Of this sum Rs. 2,415-10-2 were in the Savings Bank and were drawn on for current expenditure and Rs. 20,000 were invested in a mortgage on a Tálukdári estate, which returns 6 per cent. interest. During the year under report a part of the Gáekwád's Haveli, at Ahmedábád, was leased by Government at a rent of Rs. 45 per mensem to the Tálukdárs, and the Jubilee Institute which is intended to serve as a temporary *utáro* for Tálukdárs visiting Ahmedábád and also as a residence for Tálukdárs' sons attending schools in the city, was established and opened in April 1st, 1893.

ENCUMBERED ESTATES, SIND.

Karáchi District.

In the beginning of the year there were 5 estates in the Karáchi District under management, of which one was relinquished under Section 26 of the Incumbered Estates Act, leaving 4 under management at the close of the year 1892-93. The total receipts of all the estates under management amounted to Rs. 5,728 and the balance of the previous year was Rs. 1,421, making a total of Rs. 7,149. Out of this, a sum as detailed below, amounting to Rs. 5,948, was spent, leaving a balance of Rs. 1,201, at the close of the year:—

Details of expenditure:	Rs.
Paid in satisfaction of Government debt	2,008
Do. interest due for the year 1892-93	826
Cost of management	243
Government assessment	1,768
Miscellaneous expenditure	1,603
Total ...	5,948

The amount due by the estates on account of Government debt at the close of the year was Rs. 5,692.

Hyderábád District.

Out of 16 estates under management at the commencement of the year, 6 were relinquished and 10 remained at the end of the year. The total receipts (Rs. 42,432 of the year, plus Rs. 1,768* on account of opening balance) amounted to Rs. 44,200. Out of this Rs. 42,638 were expended as under:—

	Rs.
(1) Cost of management	1,662
(2) Amount paid in liquidation of Government loan	7,470
(3) Do. do. private debt	2,897
(4) Maintenance to owners	240
(5) Government assessment	28,339
(6) Other expenditure	2,030
Total ...	42,638

leaving Rs. 1,562 at the close of the year to the credit of the estates. The amounts of Government loans and private debts remaining at the close of the year were as under:—

	Rs.
Government loan	10,900
Private debts	6,707
Total ...	17,607

Shikárpur District.

In the Shikárpur district there were in all 6 estates under management; of these, 2 were discharged and 4 remained till the end of the year. The total receipts during the

* In the previous year's accounts the closing balance was shown as Rs. 1,778. The difference was due to the return of Rs. 10 to the holder of an estate which was relinquished on 31st March 1892.

year were Rs. 23,355, which, together with the balance of Rs. 1,214, amounted to Rs. 24,569. The disbursements made during the year were as shown below :—

	Rs.
(1) Amount paid in liquidation of Government debt	3,000
(2) Do. of private debt	1,826
(3) Cost of management	1,028
(4) Government assessment	13,481
(5) Maintenance charges of owners	1,986
(6) Interest on Government loan	294
(7) Other items	1,269
Total ...	22,884

The balance in favour of the estates at the close of the year was Rs. 1,685. The amount due from the estates at the close of the year on account of Government loan was Rs. 3,200, and on account of private debts, Rs. 6,451.

Upper Sind Frontier District.

The three estates which remained from last year continued under management up to the close of the year under report. The total receipts of the year were Rs. 678, which, together with the balance of the previous year, Rs. 687, amounted to Rs. 1,365. Out of this Rs. 569 were disbursed as under :—

	Rs.
Paid in liquidation of private debts	511
Miscellaneous expenditure	58
Total ...	569

—leaving Rs. 796 to the credit of the estates at the end of the year. The private debts outstanding against the estates amounted at the close of the year to Rs. 1,153.

Thar and Párkar District.

There were no estates under management in the Thar and Párkar District.

CHAPTER III.—PROTECTION.

Legislating Authority.

Legislating authority.

The Governor of Bombay in Council is the legislating authority in this Presidency.

Constitution of the Council of the Governor for making Laws and Regulations.

The Governor's Council, when sitting for the purpose of making Laws and Regulations, includes, in addition to the Members of the Executive Government, (who in the Indian Councils Act of 1861 are termed "ordinary Members"), certain Members entitled to sit and vote only at meetings held for that purpose.

Additional Members.

These additional Members consist, under the Indian Councils Acts of 1861 and 1892, of the Advocate General or officer acting in that capacity, and from eight to twenty other persons nominated by the Governor. Not less than one-half of the persons nominated to be additional Members must be non-official persons, that is persons who at the date of their nomination are not in the Civil or Military Service of the Crown in India. Of the additional Members, eight are nominated by the Governor on the recommendation of the following Bodies and Associations, respectively, namely :—

(A). The Corporation of Bombay;

(B). Such Municipal Corporations or group or groups of Municipal Corporations, other than the Corporation of the City of Bombay, as the Governor in Council may, from time to time, prescribe by Notification in the *Bombay Government Gazette*;

(C). Such District Local Boards, or group or groups of District Local Boards as the Governor in Council may, from time to time, prescribe as aforesaid;

(D). The Sardárs of the Deccan, or such other class of large land-holders as the Governor in Council may, from time to time, prescribe as aforesaid;

(E.) Such Association or Associations of merchants, manufacturers or tradesmen as the Governor in Council may, from time to time, prescribe as aforesaid;

(F). The Senate of the University of Bombay.

Each of the above Bodies or Associations may have at least one person nominated upon its recommendation, but the first and the last-named Bodies cannot have more than one each. To such of the remaining seats as are not filled by officials the Governor may, at his discretion, nominate persons in such manner as shall, in his opinion, secure a fair representation of the different classes of the community. Each additional Member is nominated for a term of two years, and is summoned to all meetings held during that period for the purpose of making Laws and Regulations.

Meetings of the Council.

The Council does not sit permanently, nor are there any fixed sessions, but it is convened by summons at such times and places as to the Governor may seem most convenient and suitable. Meetings are ordinarily held in Bombay during the cold season and in Poona during the rains. The Governor is the President of the Council. In his absence, the senior Civil Ordinary Member of Council presides. To constitute a quorum at any meeting, the Governor or an Ordinary Member of Council and four other Members must be present. In cases of difference of opinion, the question is put to the vote and decided by the majority of votes; the President having, when the votes on either side are equal, a casting vote.

Legislative functions.

Subject to certain clearly defined restrictions, the Council is authorized to make Laws and Regulations "for the peace and good government of the Presidency." The limitations placed upon its powers are as follows :—It cannot make any Law or Regulation affecting the provisions of the Indian Councils Act or any other Act of Parliament in force in the Bombay Presidency; and it cannot, save with the previously obtained sanction of the Governor General, make or take into consideration any Law or Regulation—

(1) affecting the public debt of India, or any tax or duty levied by the authority of the Government of India;

(2) regulating the current coin or the issue of any Bills, Notes or other Paper Currency;

(3) regulating the conveyance of letters by the post office or of messages by the electric telegraph;

(4) altering in any way the Indian Penal Code;

(5) affecting the Religion or religious rites and usages of Her Majesty's subjects in India;

(6) affecting the discipline of Her Majesty's Military or Naval Forces;

(7) regulating Patents or copyright; or

(8) affecting the relations of the Government with Foreign Princes or States.

Under Section 2 of the Indian Councils Act of 1892, the Governor in Council has, with the sanction of the Governor General in Council, made rules authorising the discussion of the Annual Financial Statement of the Government of Bombay at a meeting of the Council for the purpose of making Laws and Regulations. After the Statement has been explained by the Financial Member of the Executive Government, each Member is at liberty to offer any observations he may wish to make on it, but the discussion is limited to those branches of the Revenue and Expenditure which are under the control of the Local Government, and it is not permissible to enter upon a criticism of Imperial Finance. The Financial Member has the right of reply, and the discussion is closed by the President making such observations as he may consider necessary. Discussion of the annual Financial Statement.

The Governor in Council has also, under Section 2 of the Act of 1892, and with the sanction of the Governor General in Council, framed rules for the asking of questions, under certain conditions and restrictions. At least six clear days' notice must, unless the President allows a question to be asked with shorter notice, be given by a Member of his intention of asking a question, and the question must relate only to public affairs with which the Government is officially connected, or to matters or branches of administration under its control and for which it is responsible. As to matters which are, or have been, the subject of controversy between the Governor General in Council or the Secretary of State and the Government of Bombay, no question may be asked or answered except as to matters of fact. Any question which, in the opinion of the President, cannot be answered consistently with the public interests, may be disallowed. Right of interpellation.

When legislation is determined on, the Executive Department of Government chiefly concerned embodies its views and proposals, after consulting any other Departments more remotely concerned, in the form of a draft Bill. If it becomes necessary to communicate with the Government of India on any matters which it is proposed to include in the Bill, such communication is confined to such matters. Sanction is not invited to the Bill as a whole by the originating Executive Department. When the Bill has been finally determined on, and approved, as revised by the Governor in Council, it is printed and forwarded with a Statement of Objects and Reasons to the Legislative Department of Government, which then applies for the sanction of the Governor General, or of the Governor General in Council, as the case may be, if necessary. Procedure as to Bills.

Bills are of three classes :—

Class I. Those which require, under Section 43 of the Indian Councils Act, 1861, and Section 2 of the Act of 1892, the previous sanction of the Governor General.

Despatch from Her Majesty's Secretary of State, No. 35, dated 1st December 1862.
Letter from the Government of India to the Government of Bombay, No. 1180, dated 18th August 1865.

Class II. Those which, under the orders marginally noted, require the previous sanction of the Government of India, being Bills containing penal clauses or creating offices which involve a charge upon the general revenues.

Class III. Those which fall under Section 42 of the Indian Councils Act, 1861, in respect of which the power of the Governor of Bombay in Council for the purpose of making Laws and Regulations is complete.

In the case of Bills falling under Class I or II, when the assent of the Governor General or of the Government of India, as the case may be, has been received from the Legislative Department of the Government of India, the Bill, if important but not urgent, is reported by the Legislative Department to Her Majesty's Secretary of State according to orders conveyed in his despatch No. 9, dated the 31st March 1874. A copy of the despatch to Her Majesty's Secretary of State is sent to the Legislative Department of the Government of India, and a communication awaited from that department before the Bill is introduced into the Council for making Laws and Regulations. The report to Her Majesty's Secretary of State is not made until the previous sanction of the Governor General or of the Government of India has been received. On the receipt of the reply of the Secretary of State the Bill, if sanctioned, is proceeded with in the manner hereinafter shown.

In the case of Bills falling under Class III, if the Bill is important, but not urgent, it is, on receipt from the Executive Department concerned, reported by the Legislative Department of the Government of Bombay to the Secretary of State, and a copy of the despatch is forwarded to the Legislative Department of the Government of India. The reply of that department is awaited before the Bill is introduced into the Council.

No business other than (1) the consideration and enactment of Bills introduced into the Council for the purpose of being enacted, (2) the discussion of the Financial Statement, and (3) the asking of questions, can be transacted at a meeting of the Council. The first step towards the enactment of a Bill is its introduction. This may be done in two ways. The Governor may order the publication in the *Bombay Government Gazette* of a Bill,* together with the Statement of Objects and Reasons which accompanies it, and such publication is deemed to be the introduction of a Bill; or any Member may move, at a meeting of the Council, for leave to bring in a Bill, in accordance with the provisions of Section 38 of the Indian Introduction.

* Under Rule 15 of Rules for Conduct of Business.

Councils Act, 1861, provided that three days' previous notice of the title and subject of the Bill has been given, and, if the leave is accorded, may send the Bill with a Statement of Objects and Reasons to the Secretary, who then causes it and the Statement to be printed, and, if so ordered by the Council, to be translated into such native language or languages as may be deemed requisite. In the case of every Bill introduced into the Council, the Secretary sends a copy thereof and of the Statement of Objects and Reasons to each Member of the Council, and causes the Bill and Statement of Objects and Reasons to be published in the *Bombay Government Gazette*. Copies of the Bill and of the Statement are also distributed to the press and to the public in such manner as the Governor in each case may direct, and a reasonable interval is allowed, with due regard to public business and convenience, for the formation and communication of opinions and useful criticisms respecting the legislation proposed between such publication and distribution and the first reading of the Bill. No motion that a Bill be read the first time is made until at least seven days after copies of the Bill and of the Statement of Objects and Reasons have been furnished to each Member. Any protracted discussion rarely occurs on the motion for the first reading of a Bill, and on that motion being carried, the Bill is, as a general rule, referred for consideration to a Select Committee. The Select Committee is appointed by the Council and ordinarily consists of the Member in charge of the Bill and from two to four other Members. A period is fixed within which the Committee is to present its report, and it is also determined whether the report shall be translated into any of the vernacular languages. The Select Committee then meets and considers the Bill and prepares a report showing the modifications, if any, recommended by it, and this report, together with the Bill, as amended by the Committee, is printed and published in the *Bombay Government Gazette*, and copies are sent to all the Members.

Reference to Select Committee.

Second Reading.

After the lapse of a further interval, which cannot be less than seven days after the report has been supplied to the Members, the report is taken into consideration by the Council, and the Member in charge then moves the second reading of the Bill. It is at this stage of the Bill that the most important discussion ordinarily arises, as, when the second reading is carried, the principle of the Bill is considered to be affirmed. Amendments of any moment or affecting the principle of the measure are, therefore, brought forward at the second reading, after due notice of not less than two days has been given by the Member who intends to propose them. If the motion for the second reading is carried, the Council proceeds to consider the Bill in detail, going through it section by section. When this close examination is finished and all the alterations deemed expedient have been effected, the Bill is at the same meeting or, if any amendments not merely clerical have been made, at a subsequent meeting, read a third time and passed. The President then signs a certificate at the foot of the Bill to the effect that it was passed at a meeting of the Council held on a certain day, and the Bill is then laid before the Governor in order that he may declare that he assents thereto or withholds his assent therefrom. An authentic copy of the Law or Regulation when assented to is sent, with copies of all the proceedings in Council connected with the Bill, to the Governor General for his assent. If the Governor General assents to the Law or Regulation, his assent is signified to the Governor and is published by the Governor in the *Bombay Government Gazette*, under the signature of the Secretary. If the Governor General withholds his assent in any case, he signifies to the Governor in writing his reason for so doing.

Course of Legislation.

The Acts passed by the Council of His Excellency the Governor of Bombay for making Laws and Regulations, and assented to by His Excellency the Viceroy and Governor General during the year 1892-93, are set forth with short Statements of their Objects and Reasons in Appendix III—A.

Three Acts were passed by the Council of His Excellency the Governor of Bombay for making Laws and Regulations and assented to by His Excellency the Viceroy and Governor General during the year under report. These were:—

(1) Act No. I of 1892—An Act to prohibit the practice of Inoculation and to make the Vaccination of children in certain portions of the Bombay Presidency compulsory.

(2) Act No. II of 1892—An Act to amend the Bombay Salt Act (Bombay Act II of 1890).

(3) Act No. III of 1892—An Act to amend the Bombay Abkári Act (Bombay Act V of 1878).

Objects and Reasons.

The reasons for which the above three Acts were introduced and passed were set forth at pages 44 and 45 of the Bombay General Administration Report for 1891-92.

Bills.

There were no Bills pending at the close of the year.

Police.

MOFUSSIL POLICE.

The total strength of the Police force stationed in the Presidency of Bombay, excluding Sind, was 14,818* during 1892. It was maintained at a cost of Rs. 24,29,897 exclusive of that of the appointment of the Inspector General of Police, or Rs. 13,473 more than in 1891. The force was distributed as follows :— Strength and cost.

General police duties	8,139
Jail guards	140
Treasury and miscellaneous guards	4,265
Town duties	2,031
Cantonment	212
Inspector General of Police, Superintendents, and Assistant Superintendents of Police	26
Total ...	14,813

The subjoined table shows the distribution of the force and its proportion to area and population :—

Districts.	Sanctioned Strength.	Area in square miles.	Population.	Proportion of Force to Area. 1 to	Proportion of Force to Population. 1 to	Districts.	Sanctioned Strength.	Area in square miles.	Population.	Proportion of Force to Area. 1 to	Proportion of Force to Population. 1 to
Northern Division.						*Southern Division.*					
Ahmedábád	1,193	3,818	921,712	3·2	772						
Kaira	717	1,609	871,589	2·24	1,215	Belgaum	691	4,657	1,013,261	6·5	1,427
Panch Mahále ...	785	1,588	313,417	2·03	399	Bijápur	665	5,095	796,339	8·5	1,197
Broach	434	1,453	341,490	3·34	786	Dhárwár	846	4,535	1,051,814	5·3	1,243
Surat	760	1,662	649,989	2·18	856						
Thána	768	3,935	810,580	5·12	1,067	Kánara	723	3,910	446,351	5·37	613
Central Division.						Kolába	537	2,137	594,872	3·97	1,107
Ahmednagar ...	707	6,645	888,755	9·41	1,258	Ratnágiri	822	3,023	1,105,926	4·77	1,345
Khándesh	1,637	10,907	1,460,851	6·46	886						
Násik	773	5,940	848,582	7·68	1,091						
Poona	1,149	5,369·4	1,067,800	4·67	929						
Sátára	982	4,988	1,225,939	5	1,248						
Sholápur	573	4,521	750,639	7·89	1,310	Total ...	14,817	77,291·4	15,163,506	5·21	1,023

The predominance of Muhammadans and Maráthás in the force still continued; their numbers being 4,993 and 4,058 against 5,165 and 4,127 in 1891.

The standard of education among officers and men was not as satisfactory as it should have been. The number of subordinate officers and men who were able to read and write an ordinary report was 1,891 and 4,712 out of the total number of 2,617 officers and 12,194 men. The percentage was 72 for officers and 38 for men. Taking officers and men together, the percentage of education was 44 for the Presidency proper, a little better than the average of 43 during the past three years. Taking the percentage by districts, the highest was 87·50 among officers in the Kánara District and 50 among men in the Sátára District, and the lowest 51·76 in the Broach District and 17·73 in the Panch Mahále. The highest percentage of officers and men together was 62, and the lowest 23. Education.

The results of the shooting competition showed a great falling off from those of 1891. The number of marksmen decreased from 844 to 566. This was due to the unsuitability of the ammunition provided for the new weapons (breech-loading smooth-bore carbines) supplied to the men, and to the fact that the latter were unfamiliar with their use. Khándesh headed the list during the year. Dhárwár, which was uppermost in the previous three years, went down very low. Out of the 18 districts represented at the competition shooting, 10 won the 25 Presidency prizes awarded. Out of the total grant of Rs. 525 for rewards, Khándesh alone carried off prizes amounting to Rs. 93. The rest of the money was distributed among other districts, Násik getting the least amount. Two competitions were held for the mounted police; in one the weapons were breech-loading and muzzle-loading smooth-bore carbines, and in the other revolvers. The first and second prizes in the first competition were carried off by Sátára and Bijápur, and in the second, both the prizes fell to Khándesh. Drill and ball practice.

The total number of punishments inflicted during the year was 2,409 against 2,022 last year. The percentage of punishments to the total strength was 16·26 against 13·64 in 1891. The number of judicial punishments remained the same as in 1891, viz. 121, dismissals were 8 less, and departmental punishments showed an increase of 387. Punishments.

The total number of rewards was 599, 268 of which were by promotion and 331 by money. There was a decrease of 44 in the former and 66 in the latter, as compared with the Rewards.

* Including ten boy-orderlies in the Panch Mahále counted as 5 full privates.

figures for 1891. The money rewards were granted chiefly for services in connection with cases under the Opium, Salt, Abkári, and Excise laws.

Cognizable crime.

The following table* gives the comparative amount of real cognizable crime in the years 1890, 1891 and 1892, for each Division and for the Presidency as a whole. Class VI comprises chiefly cognizable offences under the Gambling, Salt, Opium, Arms, Stamp and Forest Laws :—

Offences.	Northern Division.			Central Division.			Southern Division.			Total.		
	1890.	1891.	1892.	1890.	1891.	1892.	1890.	1891.	1892.	1890.	1891.	1892.
Indian Penal Code cases ...	4,203	4,041	3,570	5,502	4,907	4,318	3,055	3,054	3,087	12,760	12,002	10,975
ses VI	2,862	2,028	2,102	1,566	1,439	1,491	1,288	1,082	998	5,716	4,549	4,591
Total ...	7,065	6,069	5,672	7,068	6,346	5,809	4,343	4,136	4,085	18,476	16,551	15,566

The figures for actual crime fell from 18,476 in 1890 and 16,551 in 1891 to 15,566 in 1892. Cases of murders, including attempts to commit murder and culpable homicide, numbered 229 during the year under report, as compared with 243 in 1891 and 237 in the preceding year. Dacoities rose from 95 in 1891 to 120, the increase being mainly in the Southern Division. The Northern Division showed a considerable decrease in this class of crime, the figures in 1891 being 25 and in the year under report only 13. Robberies decreased from 248 to 214. Housebreaking cases receded from 2,352 to 2,117 and thefts from 5,358 to 5,156. Cases of receiving stolen property numbered 370 as against 406 in 1891.

The success of the Police in dealing with offences.

The total number of cases for disposal by the police, including offences under the Indian Penal Code and Class VI and cases pending from the previous year, was 25,560 of which 21,263 were under the Indian Penal Code. Of these 15,073 were decided by the Magistrate to be real. Of these, again, 9,798 were decided by trial, the convictions obtained numbering 8,504. Of the 25,560 cases under all laws, 10,487 were excluded as false, and 2,088 were undisposed of at the end of the year. The percentages of cases ending in conviction to real cases disposed of and decided by trial were 56 and 84 respectively under the Indian Penal Code, 89 and 90 in Class VI, and 65 and 86 in all classes. During the year 18,493 persons were arrested by the police *suo motu*, and there were 1,077 persons under arrest or on bail at the beginning of the year. The total number for disposal was therefore 19,570. In the previous year arrests numbered 19,747, and the total number for disposal was 20,627. Of the number arrested during 1892, 14,158 were charged with offences under the Indian Penal Code against 15,182 in 1891. The total number of persons sent for trial during the year under review numbered 17,818, of whom 11,470 or 64 per cent. were convicted. In the Indian Penal Code cases the percentage was 59. The corresponding percentages in 1891 were 62 and 56 respectively.

Stolen property.

The value of property reported stolen during the year amounted to Rs. 8,81,352 as compared with Rs. 7,83,626 in the previous year. Including property stolen in cases pending from the previous year, the total value of property to be accounted for by the police amounted to Rs. 9,81,967, of which they succeeded in recovering property worth Rs. 3,91,470 : the percentage of recovery was therefore 39 against 48 in 1891. The percentage of cases in which property was recovered to cases in which it was stolen was 66, as compared with 71 in 1891.

Non-cognizable crime.

The following table shows the details of non-cognizable crime in each Division of the Presidency in comparison with those for the year 1891 :—

Division.	Total number of cases.		Number of cases in which the police were employed.		Percentage of cases in column 3 to those in column 2.		Persons. Number of persons appearing before the Courts.		Discharged.		Convicted.		Acquitted.		Percentage of persons convicted to those appearing before Courts.	
1	2		3		4		5		6		7		8		9	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
Northern Division... ...	39,676	46,769	217	328	·5	·67	46,694	49,940	13,032	15,084	15,211	12,757	20,598	21,823	32·5	25·5
Central Division... ...	47,177	44,236	345	221	·7	·49	58,291	76,444	18,147	13,658	16,015	15,848	29,708	33,925	25·7	20·7
Southern Division... ...	13,515	18,592	319	561	6·05	4·13	22,192	21,487	5,363	3,933	3,802	3,588	12,954	13,755	17·1	16·6
Total ...	100,368	106,597	1,881	1,110	1·8	1·04	127,167	147,871	31,542	32,675	34,028	32,193	63,258	69,102	26·7	21·7

* The figures relating to cognizable crime are taken from the supplementary statement No. 1 used by the Inspector General of Police.

The table shows an increase of 6,229 cases over those in 1891. The increase was mostly in the Northern Division. Ahmedábád showed the largest proportion of offences recorded in the whole Presidency. The number in 1890 was 5,388 in that district. It rose to 14,894 during 1891 and 17,996 during the year under report. The police were employed to make enquiries in 1,110 cases as against 1,381 in 1891. No less than 147,871 persons appeared before Courts against 127,167 in the previous year. Of these, 32,675 were discharged, 32,193 convicted and 69,102 acquitted. The percentage of convictions to persons appearing before Courts was 21·7. The Northern Division shewed the highest percentage in this respect and the Southern Division the lowest.

Sind Police.

Strength and cost.

The total strength of the police force of the five districts of Sind was 4,303 during the year 1892. It was maintained at a cost of Rs. 8,56,337 or Rs. 4,031 less than in 1891, owing to the reduction in the strength of the Thar and Párkar police. The force was distributed as below :—

General police duties	2,393
Jail guards	157
Treasury and miscellaneous guards	910
Town duties	792
Cantonment	45
Superintendents and Assistant Superintendents	6
Total ...	4,303

The subjoined table shows the distribution of the force and its proportion to area and population :—

Districts.	Sanctioned Strength.	Area in square miles.	Population.	Proportion of Force to Area.	Proportion of Force to Population
				1 to	1 to
Karáchi	1,433	14,178	564,880	9·88	394
Hyderábád	933	9,052·75	918,646	9·70	984
Thar and Párkar	566	12,729	298,203	22·49	526
Shikárpur	1,116	9,629	915,497	8·62	820
Upper Sind Frontier	255	2,520	174,548	9·92	684
Total ...	4,303	48,108·75	2,871,774	51·99	667

As in the previous year there was a predominance of Muhammadans in the force.

Education.

Of the total number of 714 subordinate officers, 382 or 53·50 per cent., and of 3,583 men 521 or 14·54 per cent., possessed sufficient education to be able to read and write an intelligible report. On the whole, taking subordinate officers and men together, the percentage of educated men in the force was 21·01. The highest percentage for any district in Sind was that for Shikárpur, *viz.* 29·89, and the lowest that for Thar and Párkar, *viz.* 12·54.

Drill and ball practice.

The shooting competition in Sind during the year was distinct from that in the Presidency proper, Government having allotted Rs. 150 of the Inspector General's grant to the Province. During the year 51 men obtained marksmen's badges, Shikárpur heading the list with 18. Out of 10 money prizes, Shikárpur took 6.

Punishments.

Of the total number of 4,297 officers and men, 599 or 13·93 per cent were punished, 43 judicially and 556 departmentally. There was a decrease of 258 in the total number of punishments as compared with 1891.

Rewards.

Of the total number of 4,297 officers and men, 61 were rewarded by promotion and 41 by donations of money. The figures for 1891 were respectively 5 and 27.

Cognizable crime.

The following table* gives the comparative amount of real cognizable crime in 1890, 1891 and 1892 for the Sind Division. Class VI comprises chiefly cognizable offences under the Gambling, Salt, Opium, Arms, Stamp and Forest laws :—

Offences.	1890.	1891.	1892.
Indian Penal Code cases	5,715	5,384	5,096
Class VI	1,891	1,950	2,098
Total ...	7,606	7,334	7,194

* The figures relating to cognizable crime are taken from the supplementary statement No. 1 used by the Commissioner in Sind.

The number of murders fell from 52 to 49, while that of attempts at murder and culpable homicide cases rose from 20 to 24. Thefts, including house-breaking with intent to commit theft, decreased from 3,883 to 3,771. Cases of receiving stolen property went down from 194 to 172.

The success of the Police in dealing with offences.

At the commencement of the year 839 cases were pending from previous years, either in the Courts or under investigation by the police. During the year 9,505 cases were reported to the police or sent to them for investigation. There were thus 10,344 cases in all for disposal. Of these 3,323 cases were excluded, the majority being classed by the Magistrates as false, whether maliciously or not, on the final reports of the police. Of the remainder, 1,583 were disposed of without being brought to trial, 4,629 were decided by trial, in 17 cases further proceedings were stopped owing to the death or lunacy of the accused, and 792 cases were pending at the close of the year. Of the cases decided by trial, 4,388 or 94·9 per cent. ended in conviction. At the beginning of the year 477 persons were under arrest or on bail in cases which were taken up by the police *suo motu*; in addition to these the police arrested 7,787 persons during the year; there were thus 8,264 persons to be accounted for. Of these 310 were released and never brought to trial, 7,485 were tried, 43 died or became insane, and 426 persons were under arrest or on bail at the close of the year. Of the persons tried 5,529 or 73·86 per cent. were convicted. In the preceding year 570 cases were pending at its commencement and 10,108 cases were reported to the police or sent to them for investigation. Of these 3,644 cases were excluded, 1,657 cases were disposed of without being brought to trial, and 4,615 were decided by trial. Contrasting the figures for the year under report with 1891, the number of persons convicted of murder rose from 28 to 37. It fell, however, in the cases of attempts to commit murder and culpable homicides from 25 in 1891 to 18 in 1892. Cases of robberies and dacoity rose from 34 and 1 in 1891, to 42 and 4 respectively in 1892.

Stolen property.

The value of property reported as stolen during the year amounted to Rs. 2,02,478 as compared with Rs. 1,79,602 in 1891, and that in pending cases of the previous years to Rs. 16,280. The total amount to be accounted for was therefore Rs. 2,18,758 against Rs. 1,94,001 in 1891. The amounts recovered in 1892 and 1891 were Rs. 94,024 and Rs. 91,993 respectively. The percentage of recoveries fell therefore from 47·4 in 1891 to 42·9 in 1892. The percentage of cases in which property was recovered to cases in which it was stolen was 62·3 against 62·4 in 1891.

Non-cognizable crime.

The following table shows the details of non-cognizable crime in Sind in comparison with those for the year 1891:—

Division.	Total number of cases.		Total number of cases in which the police were employed.		Percentage of cases in column 3 to those in column 2.		Persons.								Percentage of persons convicted to those appearing before Court.	
							Appearing before Court.		Discharged.		Convicted.		Acquitted.			
1	2		3		4		5		6		7		8		9	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
Sind	11,797	12,243	261	217	2·2	1·77	21,102	20,069	5,099	6,218	3,561	4,785	13,079	8,766	16·9	23·9

The table shows a net increase of 446 non-cognizable cases for Sind over the preceding year. The number of persons concerned in these cases, however, decreased by 1,033.

BOMBAY CITY POLICE.

Strength and cost of the Police.

The strength of the force including those employed in the dockyards and harbour was 1,634 as against 1,633 in 1891, and the total cost was Rs. 5,13,896 against Rs. 5,11,591.

Conduct.

The general conduct of the force was good. There were 18 dismissals as against 14 in 1891, while 11 officers and 381 men were punished departmentally. Five men were punished judicially by the Magistrates. Promotion was given to 218 officers and men as a reward, while 97 received good conduct badges, and 22 money rewards.

Cognizable crime.

The number of cognizable cases reported to the Police and to the Magistrates was 20,581 as against 17,893 in 1891, an increase of 2,688. The increase was principally under the Police Acts and was due to more frequent complaints by the public of petty offences, such as street obstructions, &c., and to greater attention on the part of the police to such complaints. The remaining increase was chiefly under the Public Conveyance Acts. There was an increase of 83 cognizable cases under the Indian Penal Code. In connection with cognizable crime 23,314 persons were arrested and placed before the Magistrates, as against 22,225 in 1891. Of these 21,350 were convicted, the percentage, 91·57, being slightly above that of 1891. A gambling game called "Eki Beki" was started during the year and spread rapidly all over the town. It was found necessary to close all the houses where this was played. Drunkenness continued to decrease.

There was an increase of 46 in cases of house-breaking, of 77 in cases of theft, and of 41 cases of receiving stolen property. These cases occurred chiefly in Máhim and other suburbs of the city. Out of eight cases of murder, convictions were obtained in two only. The total value of the property stolen rose from Rs. 2,29,616 to Rs. 3,02,788. The recoveries amounted to Rs. 1,50,776, giving a percentage of 49·79 against 51·6 in 1891.

There were in all 9,189 non-cognizable cases during the year under report, of which 4,066 were under the Indian Penal Code and 5,123 under special and local laws. In the previous year the number was 8,440. Of the 7,649 persons appearing before the Courts in connexion with these cases, 2,888 were convicted. Non-cognizable crime.

There was an increase of 177, 40 and 73 in the number of rifles, guns and pistols imported, but a decrease of 85 in the number of carbines. There was a decrease in the imports of gunpowder but an increase in those of loaded cartridges. Licenses and permits under the Act numbered 4,568, an increase of 680. Trade under the Arms Act.

The Coroner held 409 inquests during the year as against 403 in the preceding year. The following verdicts were recorded:— Inquests.

Homicides	12
Deaths caused by rash and negligent acts	5
Suicides	93
Accidental deaths	228
Deaths from natural causes	44
Deaths from unknown causes	27
Total ...	409

The number of pilgrims who passed through Bombay was 8,143 as against 9,096 in 1891. Of this number 5,834 were British subjects, 724 subjects of Native States and 1,585 foreigners. Besides the above number, 147 passed through Bombay to the Hedjaz on passports obtained from different British Civil and Political Officers in India, as against 143 in 1891. Pilgrims.

RAILWAY POLICE.

The strength and cost of the four Railway Police forces during the year 1892 were as follow:— Strength and cost.

Names of Railway Lines.	Officers.	Men.	Total number of Officers and Men.	Cost.
				Rs.
B. B. & C. I. Railway	55	414	469	86,553
G. I. P. Railway	101	486	587	1,35,599
Southern Marátha Railway	48	250	298	62,396
Rájputána-Málwa Railway	112	485	597	1,23,462
Total ...	316	1,635	1,951	4,08,010

The sanctioned strength of the B. B. & C. I. Railway was permanently augmented during the year under report by 7 men. In the case of the G. I. P. Railway there was no change in the sanctioned strength, but the total cost showed an increase of Rs. 17,220 over that in 1891. This was due partly to the fact that a Superintendent of higher grade was in charge of the Railway Police for nearly 8 months, and partly to certain pension contributions on pay and salaries not having been shown last year. The Southern Marátha Railway force was reduced by four men during the year.

The efficiency and conduct of the B. B. & C. I. Railway Police was satisfactory on the whole. In the matter of education, also, there was an improvement. The conduct of the G. I. P. Railway Police was somewhat better than in 1891, the total number of punishments being 148 in 1892 against 160 in 1891. Eighty-nine officers and 297 men were shown as educated as against 92 and 308 in 1891. The Southern Marátha Railway Police on the whole behaved well throughout the year. From the point of view of education they showed an improvement. The conduct of the Rajputána-Málwa Railway force was not very satisfactory. The number of punishments increased and the standard of education remained very low. Conduct and education.

The total number of offences reported during the year on the B. B. & C. I. Railway was 414 against 321 in 1891, on the G. I. P. Railway 462 against 487, on the Southern Marátha Railway 260 against 254, and on the Rajputána-Málwa Railway 1,166 against 1,091. The general results of the years 1891 and 1892 as regards cognizable and non-cognizable crimes are summarised in the following table:— Crime.

Names of Railway Lines.	Number of cases reported.		Number in which convictions were obtained.		Number of persons arrested or appeared on other process.		Number convicted.	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
B. B. & C. I. Railway.								
Cognizable	246	354	173	259	272	357	200	272
Non-cognizable	75	60	...	...	85	85	77	71
G. I. P. Railway.								
Cognizable	382	406	121	204	263	405	140	250
Non-cognizable	105	56	...	...	127	64	95	39
Southern Marátha Railway.								
Cognizable	163	223	117	158	199	227	132	160
Non-cognizable	91	37	...	...	95	50	77	30
Rajputána-Málwa Railway.								
Cognizable	1,042	1,094	417	457	683	722	498	543
Non-cognizable	49	72	...	...	80	90	62	84

The success of the Police in dealing with offences.

The results of the police work in detecting and successfully prosecuting crime may be gathered from the following percentages:—

Names of Railway Lines.	Percentages.									
	Of Police cases ending in conviction to Police cases investigated.		Of Police cases ending in conviction to Police cases decided.		Of persons released in Police cases without being brought before a Magistrate to persons arrested by Police.		Of persons convicted in Police cases to persons arrested by Police.		Of persons convicted in Police cases to persons sent up for trial.	
	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.	1892.
B. B. & C. I. Railway	69	73	89	90	5	6	74	78	79	81
G. I. P. Railway	36	46	84	96	12	7	55	63	62	68
Southern Marátha Railway	71	72	97	95	3	5	73	73	71	78
Rájputána-Málwa Railway	39	41	87	85	...	...	75	76	73	77

Cognizable crime.

On the B. B. & C. I. Railway there was a considerable increase in the amount of real cognizable crime during the year. This was due to a certain extent to an increase in cases under the Opium Act. During the year under report, 13 cases of receiving stolen property were detected as against 3 in 1891. There was an increase in cognizable crime on the Southern Marátha Railway during the year under report, cases of house-breaking rising from 3 to 10 and of theft from 82 to 97. On the Rajputána-Málwa Railway, too, there was a considerable increase in real cognizable crime. This was mostly in theft cases, which numbered 734 in 1892 against 685 in the preceding year. On the B. B. & C. I. Railway property valued at Rs. 6,878 was reported as stolen; 47 per cent. was recovered. On the G. I. P. Railway, the value of stolen property which was recovered was Rs. 5,957 or 81 per cent of the whole. On the Southern Marátha and Rájputána-Málwa Railways the value of the property stolen was Rs. 3,513 and Rs. 26,344 respectively; the percentages of recovery were 51 and 50.

Non-cognizable crime.

The number of non-cognizable cases in which the police were employed to make enquiries on the B. B. & C. I. Railway was 27 out of 60 cases, on the Southern Marátha Railway one out of 37 cases, and on the Rájputána-Málwa Railway 63 out of 72 cases. On the G. I. P. Railway no non-cognizable case was investigated by the Police.

ADEN POLICE.

Cost.

The strength of the Aden Land Police in 1892-93 was the same as that in 1891-92, the force numbering 211 officers and men. They were distributed as follows:—at Aden 145 men; at Shaikh Othman 56, and at Perim 10. The water police consisted of 4 European constables and 30 men. The maintenance of the force cost Rs. 56,483 as against Rs. 54,296 in 1891. Of this Rs. 40,053 were contributed by Government and Rs. 16,430 by the Municipality.

Conduct.

The conduct of the police throughout the year was good. Of 378 persons placed before the Magistrates in cognizable cases, 292 were convicted. This gives a percentage of convictions of 77·2 as against 78·48 in the preceding year. The value of property reported stolen was Rs. 2,465 and of that recovered Rs. 1,852; the percentage of recovery thus rose from 27·75 in 1891 to 75·05 in 1892. The total number of offences tried in Aden was 427 involving 708 offenders; of these 547, or a percentage of 77·26 were convicted.

VAGRANTS.

Bombay Government Workhouse: Admissions.

The number of male vagrants dealt with during the year 1892 was 93, as compared with 121 in 1891. Seventy-one were admitted into the Workhouse during the year, while 22 remained over from 1891. Of the 71 newly admitted, 50 (including one man committed in

Bombay, but who had been sent to Bombay by the Magistrate of Allahábád) were arrested in the City of Bombay, and 21 were received from other parts of the Presidency. In the preceding year, 96 were admitted, of whom 71 were arrested in Bombay, 22 were received from other parts of the Presidency, 2 from Ajmere, and one was re-admitted on a former warrant.

Discharges.

Of the 93 vagrants dealt with during the year under review, 23 were discharged to employment, 4 to proceed to other stations where they had prospects of employment, one was sent to the Lunatic Asylum, 2 were transferred to the European General Hospital, 6 were discharged to the care of friends, two were sent to England as ex-military convicts, one was discharged as he had sufficient means to maintain himself, 4 were sentenced to imprisonment, one was deported to England, and 2 to Natal. Twenty-nine deserted. There were thus 18 vagrants left in the Workhouse at the close of the year, as compared with 22 at the close of the previous year.

Cost.

The total expenditure on the Workhouse during the year amounted to Rs. 6,280, showing an increase of Rs. 102 over the previous year. This, however, was owing to certain accounts due in 1891 not having been submitted for payment till 1892. The total cost to Government of carrying out the Vagrancy Act was Rs. 6,552 or Rs. 100 in excess of the cost during the year 1891.

Female Workhouse.

There were no admissions to the Female Workhouse during the year under review. The 2 female vagrants, who remained in the Workhouse at the end of the previous year, were discharged to the care of friends within a few days of the opening of the year 1892. The total cost of maintaining the Female Workhouse during 1892 was Rs. 71-11-5 as against Rs. 162-10-0, when there were 4 admissions.

Destruction of Wild Animals and Venomous Snakes.

Total destruction of life.

The number of persons killed by wild animals and venomous snakes in the whole Presidency fell from 1,267 to 1086, a decrease of 181. There were 10 persons killed by tigers, 5 of them in Khándesh, 10 by leopards and panthers, and 2 by wolves. There were no deaths caused by bears during the year. The recorded number of deaths from snake-bite was 1,038 as against 1,187 in 1891. According to districts, the largest number of deaths occurred in Hyderábád (173), Ratnágiri (146), Thána (117), and Shikárpur (80). These same 4 districts headed the list last year.

Mortality among cattle.

The reported loss of cattle amounted to 2,283 as against 2,827 in the previous year. The figures for Sind and the Central Division showed a decrease; those for the Northern and Southern Divisions an increase. The districts which suffered most were Khándesh, Násik, Kánara, and Hyderábád. The Mámlatdárs of Báglán and Peint in the Násik District were empowered to lend guns from the stock in their kacheris to any respectable Kunbis ~~and Bhils who~~ applied for them for the purpose of destroying wild animals.

Destruction of wild animals and snakes and rewards paid.

The total number of wild animals destroyed was 600 as against 820; the sum paid in rewards was Rs. 3,935-6-0 as against Rs. 5,092-1-0 in the previous year. The largest number of tigers, leopards and panthers were killed in the Khándesh and Násik districts; of wolves and hyænas in the Karáchi and Hyderábád districts. The number of snakes destroyed for which rewards were paid was 292, as against 2,803 in 1891. The decrease is said to be due to the reduction in the amount of reward paid for each snake killed: Six thousand nine hundred snakes were killed in Sind, for which no reward was paid. Measures were taken throughout the greater part of the Presidency and Sind to keep the ground adjacent to human habitations free from jungle and refuse such as would afford cover for snakes.

Gun Licenses.

During the year under review 1,929 licenses to carry arms for the destruction of wild ~~beasts and the protection~~ of crops were granted as compared with 2,794 in the previous year. The total number of licenses in force was 8,865.

Chemical Analysis.

General.

The total number of articles examined during the year was 2,881 as against 3,306 in 1891, a decrease of 425. Of these 1,308 were analysed in connection with 320 medico-legal cases as against 1,307 in 321 cases in 1891. Three hundred and ninety samples of potable water were examined as compared with 396 in the previous year; also 245 samples of Government stores against 664 in 1891 and 872 samples from the Customs and Abkári Departments, as compared with 859 in 1891.

Medico-legal cases.

Of the 320 medico-legal cases, 153 were cases of real or alleged poisoning of human beings as compared with 151 in the previous year, poison being detected in 45 per cent of these cases as against 49·6 per cent in 1891. In 39 of these cases in which poison was detected, the poison employed was arsenic, in 3 copper, in 2 lead, in 2 mercury, in 3 pounded glass, in 10 opium, in 3 dhatura, in 5 strychnia, and in 2 instances other poisons. In all, 92 persons were poisoned, of whom 34 died, 19 of these deaths being caused by arsenic and 7 by opium. One hundred and twelve cases of animal poisoning, real or alleged, were examined, as compared with 114 in the previous year. In 69 cases, where poison was detected, 51 animals, all of them horned cattle, died; this was the smallest number of deaths for many years past. The poisons detected in the 69 cases were arsenic in 45, cerbera thevetia in 21, and redlead, sulphate of copper and strychnia in 1 each.

Potable waters.

Three hundred and ninety samples of potable water were sent for examination as to their fitness for potable purposes. One hundred and eighty-two were classed as bad, the remainder being of fair or good quality.

Miscellaneous.

In addition to the above, 66 articles classed as miscellaneous were examined and reported on.

Criminal Justice.

Area, Population, Courts and Judges.

This section relates to the administration of justice by the Criminal Courts in the Regulation Provinces of the Presidency and in the Province of Sind, as well as the Courts of the Presidency Magistrates, and represents the work done by those Courts. The following table shows the area and population of the above-mentioned provinces according to the census of 1891 :—

	Area in Square Miles.	Population.
Regulation Provinces	77,275	15,985,270
Sind	47,789	2,871,774
Total ...	125,064	18,857,044

The Courts of which the work forms the subject of this section were :—

Regulation Provinces.

The High Court.
16 Sessions Judges and Joint Sessions Judges.
4 Assistant Sessions Judges.
18 District Magistrates.
4 Presidency Magistrates.
126 Magistrates of the First Class.
192 Magistrates of the Second Class.
201 Magistrates of the Third Class.
14,858 Police Pátils with criminal jurisdiction under Bombay Act VIII of 1867.

Sind.

The Sadar Court.
3 Sessions Judges.
1 Assistant Sessions Judge.
5 District Magistrates, of whom 2 were invested with special powers as Deputy Commissioners under Section 30 of the Code of Criminal Procedure.
26 Magistrates of the First Class.
62 Magistrates of the Second Class.
52 Magistrates of the Third Class.

The Judges mentioned in the above paragraph were all stipendiary. During the year 1892 there were 67 Honorary Magistrates in the Presidency proper, but none in Sind. Of the 67 Honorary Magistrates, 41 formed eight Benches of Magistrates. Of the Judges of the High Court six were Europeans and one a native. Of the Sessions, Joint Sessions and Assistant Sessions Judges, including those in Sind, all were Europeans except five, who were natives, three of the latter being Statutory Civilians. Seventy-six of the First Class Magistrates were Europeans and one hundred and three natives. Of the Second and Third Class Magistrates all were natives, except ten and five respectively.

Offences reported.

The total number of offences reported during the year under report amounted to 213,625, of which 169,872 were returned as true. The corresponding numbers for the preceding year were 189,130 and 161,044 respectively. The number of offences affecting the public health, safety and convenience, again rose from 1,440 to 1,887. The number of cases of wrongful restraint and wrongful confinement increased from 472 to 581 ; that of criminal force and assault from 4,954 to 5,245, and that of cases of mischief from 4,117 to 4,558. There was again a marked increase in the case of offences under Special and Local Laws. The number of cases under the District Municipal and Police Acts rose from 51,403 to 57,308 and 5,555 to 6,887 respectively ; cases under the Municipal Act (for the City of Bombay) also increased from 4,143 to 4,957, and the number of cases under the Village Police and Forest Acts rose from 2,993 to 3,596 and from 1,393 to 1,880 respectively. The number of cases of hurt diminished by 488. Cases of theft fell from 10,304 to 10,064. The number of cases of criminal trespass and of those of defamation showed a decrease of 85 and 59 respectively. Of the 487 cases affecting human life brought to trial during the year, 259 were murders as compared with 252 out of 465 in the preceding year. The following table shows the number of offences returned as true in each district, including those in Sind, with the ratio of the number of offences to the population for the year 1892 as compared with the year 1891 :—

Names o Districts.	Population.	Offences		Ratio of number of offences to population.	
		1891.	1892.	1891.	1892.
Ahmedábád	921,712	13,857	16,739	1 to 67	1 to 55
Kaira	871,589	6,433	10,852	1 to 135	1 to 80
Panch Mahále	313,417	1,186	1,162	1 to 264	1 to 270
Broach	341,490	5,300	5,864	1 to 64	1 to 58
Surat	649,089	4,229	4,543	1 to 154	1 to 143
Thána	904,868	8,050	8,081	1 to 112	1 to 112
Kolába	509,584	4,108	4,008	1 to 124	1 to 127
Násik	843,582	10,435	8,213	1 to 81	1 to 103
Khándesh	1,460,851	7,232	8,232	1 to 202	1 to 177
Ahmednagar	888,755	3,331	4,422	1 to 267	1 to 201
Poona	1,067,800	14,218	24,667	1 to 75	1 to 43
Sholápur	750,689	15,628	6,361	1 to 48	1 to 118
Sátára	1,225,989	9,914	10,629	1 to 124	1 to 115
Belgaum	1,013,261	3,008	3,385	1 to 337	1 to 299
Dhárwár	1,051,314	2,691	2,990	1 to 391	1 to 352
Bijápur	796,339	2,050	1,705	1 to 388	1 to 467
Kánara	446,351	1,621	1,644	1 to 275	1 to 272
Ratnágiri	1,105,926	2,990	2,664	1 to 370	1 to 415
Karáchi	564,880	4,193	4,802	1 to 135	1 to 118
Hyderábád	918,646	4,961	4,597	1 to 185	1 to 200
Shikárpur	915,497	6,390	6,276	1 to 143	1 to 146
Upper Sind Frontier	174,548	1,017	936	1 to 172	1 to 186
Thar and Párkar	298,208	900	862	1 to 331	1 to 346
Bombay (City)	821,764	27,302	26,238	1 to 30	1 to 31
Total ...	18,857,044	161,044	169,872	1 to 117	1 to 111

The decrease was most marked in the district of Sholápur. There was also a considerable decrease in the district of Násik and in the City of Bombay. Next to these were the districts of Hyderábád, Bijápur, Ratnágiri and Shikárpur. The districts of Poona, Kaira, Ahmedábád, Ahmednagar and Khándesh showed a considerable increase, especially the first named. There was also an increase in the districts of Sátára, Karáchi, Broach, Belgaum, Surat and Dhárwár. The City of Bombay continued to be the most criminal of all the districts, and in the districts of Kaira, Broach, Ahmedábád and Poona the number of offences in proportion to population was very high.

Cases brought to trial and disposed of.

Out of the 169,872 offences returned as true, 150,644 cases were brought to trial before the Courts. The total number of persons under trial during the year, including those involved in cases pending at the close of the previous year, amounted to 261,657, being 27,267 more than in 1891. Of these 155,638 were acquitted or discharged, 85,403 were convicted, 859 died during trial, 2,384 escaped and 18 were transferred to other provinces, while 17,355 remained under trial at the close of the year. During the previous year the number of persons under trial amounted to 234,390, of whom 139,892 were acquitted or discharged, 90,861 were convicted, 2 were ordered to be retried, 112 died during trial, 18 escaped and 3 were transferred to other provinces, 3,502 remaining under trial at the close of the year. The following table exhibits the percentage for the year 1892 as compared with the two preceding years:—

	1890.	1891.	1892.
Died, escaped or transferred ...	·075	·057	1·25
Discharged or acquitted	60·	59·68	59·48
Convicted	38·41	38·76	32·64
Remaining under trial	1·51	1·66	6·63

The proportion of acquittals and discharges to convictions rose during the year under report to 64·57 as compared with 60·62 in 1891. The proportion was highest in the cases of hurt, wrongful restraint and wrongful confinement, attempts at criminal force and assault, extortion, attempts at robbery and dacoity, cheating, fraudulent deeds and disposition of property, mischief, attempts at mischief, offences relating to documents, &c., and those relating to marriage, defamation, and in cases of criminal intimidation, insult and annoyance. The number of convictions ranged highest in the cases of contempts of the lawful authority of public servants, offences relating to weights and measures, offences affecting the public health, &c., theft, attempts at theft, and in cases of attempts at criminal trespass.

European British subjects.

During the year under report, 342 cases involving 373 European British subjects were brought to trial. The offences were principally hurt, criminal force and assault, theft and offences under special and local laws, the number of cases under the last-mentioned heading being 264 or 77·19 per cent. of the whole number. Of the 373 persons tried, 299 were convicted and 74 were acquitted or discharged, the ratio of the number acquitted or discharged to the number convicted being 20 to 80 as compared with 13 to 87 in the preceding year.

Miscellaneous cases.

The number of miscellaneous cases before the Criminal Courts during the year under

report amounted to 3,331 involving 3,724 persons, of whom 47 remained under trial at the end of the year; 1 escaped and 1 person having left Bombay the warrant could not be executed. Of the remaining 3,675 persons, 1,414 were discharged and 2,261 were convicted. In the year 1891 there were 2,857 cases involving 3,484 persons, of whom 1,518 were discharged, 1,928 were convicted, 7 died, 1 escaped and 30 were under trial at the end of the year. These cases included proceedings under Chapter VIII of the Code of Criminal Procedure for taking security for good behaviour and for keeping the peace, as also proceedings for the forfeiture of bail or recognizance, maintenance and local nuisance cases and orders with regard to frivolous or vexatious complaints under section 560 of the Code of Criminal Procedure.

Work done by the Courts.

Of the 261,657 persons who were brought to trial during the year, 5,167 were placed before village officers, 33,538 before Special Magistrates, 19,525 before Honorary Magistrates sitting singly, 165,534 before Stipendiary Magistrates, and 12,858 before Benches of Magistrates. The cases of 200 persons were referred to District and Divisional Magistrates under sections 347 and 349 of the Criminal Procedure Code, and 24,605 came before them directly. There were 2,346 persons brought to trial before the Courts of Sessions, and 121 before the High Court and the Sadar Court in Sind against 2,203 and 142, respectively, in the previous year. As persons committed or referred are reckoned twice over, *i. e.*, once for each Court before which they appear, it follows that the total of the several items shown above, *viz.* 263,894, does not agree with the total number of persons actually brought to trial before the various Courts.

The High Court.

During the year 1892, the High Court on its Original Side disposed of 42 cases involving 46 persons. Of these 8 persons were discharged or acquitted and 38 were convicted, and the cases against 8 persons remained pending at the close of the year. In the year 1891 there were 71 cases involving 84 persons, of whom 25 were discharged or acquitted and 59 were convicted. On the Appellate Side of the High Court there were 25 cases involving 35 persons for confirmation of sentences of death, and 10 cases involving 21 persons were referred to the High Court by Sessions Judges under Section 307 of the Code of Criminal Procedure. Of these 56 persons, 16 were acquitted and 31 convicted, the sentences of death being confirmed on 19 persons, and the cases against 9 persons remained pending at the end of the year.

The Sadar Court in Sind.

The Sadar Court in Sind, as a Court of reference, disposed of 10 cases involving 10 persons referred to it. Out of these 10 persons, 2 were acquitted and 8 convicted, the sentence of death being confirmed on 6 persons, and the case against 1 person remained pending at the close of the year, as the accused in the case was ordered to be confined in a Lunatic Asylum at Hyderábád.

Courts of Sessions.

In the Courts of Sessions 2,346 persons were under trial during the year under report, as compared with 2,203 in the previous year. Of these, 1,211 were acquitted, 908 were convicted, 63 committed or referred, 4 died and 1 escaped, 159 remaining under trial at the close of the year. The ratio of acquittals to convictions rose from 50 to 50 in 1891, to 57 to 43 during the year under report.

Magistrates.

Exclusive of 2,174 persons who were committed or referred to superior Courts, the Magistrates of the various classes had before them during the year under report, as compared with the preceding year, the numbers shown in the following table:—

	1891.	1892.
Persons under trial	227,823	254,086
Died, escaped or transferred	127	3,255
Acquitted or discharged	137,095	152,053
Convicted	87,305	81,600
Remaining under trial	3,296	17,178

The percentage of acquittals in the cases finally disposed of was 64·18 as compared with 61·06 in the preceding year.

Police Pátels.

The police pátels had before them 5,167 persons against 4,268 in the previous year. Of these, 1 died, 2,348 were acquitted or discharged, and 2,818 were convicted.

Duration of trials.

The following table shows the duration of trials before Special, Stipendiary, and District and Divisional Magistrates, as well as before the Courts of Sessions, and the High Court and the Sadar Court in Sind, as compared with the duration in the preceding year:—

	1891.	1892.
	Days.	Days.
Special Magistrates	4·039	2·449
Stipendiary Magistrates...	5·281	8·188
District and Divisional Magistrates	3·506	2·879
Courts of Sessions	29·609	30·941
High Court, Original Side	·308	·2
Sadar Court in Sind	26·	33·

In the High Court, Original Side, the figures represent only the time actually occupied by the trial in the Court, while in the case of the Sessions Courts the time from the date of commitment is included.

Witnesses.

There were, in all, 254,553 witnesses examined by all the Criminal Courts during the year 1892 as compared with 264,404 in the preceding year. Of these 4,384 were examined by police pátels, 240,572 by all classes of Magistrates, 9,282 by the Courts of Sessions and 315 by the High Court. The number of witnesses so examined by the Magistrates and the Courts of Sessions in the preceding year amounted to 251,041 and 8,138, respectively.

Punishments.

The High Court on its Original Side passed one sentence of death. The High Court on its Appellate Side and the Sadar Court in Sind confirmed the sentences of death on 19 and 6 persons, respectively, against 20 and 12, respectively, in the year 1891. Five persons were sentenced to be hanged by the High Court on the Original Side in the year 1891. There were 133 persons sentenced to transportation during the year 1892 as compared with 161 in 1891. No sentence of penal servitude was passed. There were 15,960 persons sentenced to imprisonment as compared with 16,395 so sentenced in the preceding year. In 13·15 per cent. of these cases simple imprisonment was awarded. No sentence of forfeiture of property was passed during the year 1892 as in the preceding year. There were 64,932 persons sentenced to fines as compared with 70,141 persons so sentenced during the preceding year. There was an increase in the amount of fines realized during the year, but a decrease in the amount of fines imposed, as well as in that of compensation paid during the year as compared with that in the previous year. The percentage of fines realized rose from 79·3 during the year 1891 to 84·2 during the year under report. During the year under report 763 persons were sentenced to whipping as compared with 699 in 1891. Of these sentences 531 were passed under Sections 2 and 3 of Act VI of 1864 in lieu of other punishments, 75 under Sections 3 and 4 of the Act in addition to other punishments, and 157 on juvenile offenders under Section 5 of the Act for offences not punishable with whipping under Sections 2, 3 and 4. The total number of persons sentenced to whipping increased by 64, the increase being most marked in the first of these classes.

Appeals and applications for revision.

The number of appellants and applicants for revision before the Courts during the year (exclusive of 328 persons whose cases were referred to the High Court for revision), amounted to 9,134. Of these an application for revision by an accused person was allowed to be withdrawn. Applications involving 664 accused persons were made by complainants for revision. Of these 4 died, escaped or were transferred, 2,705 had their appeals or applications rejected, 4,115 had their sentences or orders in their cases confirmed, on 55 the sentences were enhanced, of 727 the sentences were reduced or otherwise modified, and of 1,523 reversed. In the cases of 40 persons the proceedings were quashed, and in the cases of 277 a new trial or further inquiry was ordered, and the cases of 359 persons remained pending at the end of the year.

The High Court.

As a Court of appeal the High Court had to deal with appeals of 601 persons from convictions by the Courts of Sessions. Of these, in the cases of 264 persons the appeals were rejected, in those of 176 the sentence was confirmed, of 33 modified and of 74 reversed, and the appeals of 54 persons remained undisposed of at the end of the year. In the previous year there were appeals of 610 persons before the High Court. The High Court had before it for revision the proceedings in the cases of 950 persons, the cases of 650 persons being sent for chiefly upon examination of the monthly criminal calendars, and the remainder being taken up on applications made to the Court. The High Court enhanced the sentences on 33, modified those of 69, and reversed those of 121. In the cases of 7 persons the proceedings were quashed, and in those of 47 persons new trials or further enquiry were ordered. The High Court did not interfere in the cases of 593 persons, and the cases of 80 persons remained pending at the close of the year. In the preceding year the number of persons whose cases the High Court had before it for revision amounted to 1,205. The districts from which the largest number of criminal cases of all kinds was received, were again Ahmedábád, Khándesh and Poona, Násik coming next. During the year under report 11 appeals were made to the High Court by Government against acquittals involving 22 persons, as compared with 19 appeals involving 42 persons in 1891, and 5 appeals against 8 persons were pending at the commencement of the year 1892. The appeals against 7 persons were rejected, in the case of 2 persons the sentences or orders were confirmed, in the case of 10 persons the sentence was modified, and in the case of 1 person a new trial or further enquiry was ordered. The appeals against 10 persons remained pending at the end of the year.

Sadar Court in Sind.

The Sadar Court in Sind had before it the appeals of 126 persons as compared with 147 persons during the previous year. In the case of 93 persons the appeals were rejected, in those of 15 the sentences or orders were confirmed, of 7 modified, and of 6 reversed, and the appeals of 5 persons remained pending at the close of the year. The Sadar Court in Sind had before it for revision the proceedings in the cases of 916 persons compared with 530 in the preceding year, while applications, in which 96 accused persons were involved, were made by complainants for revision. It did not interfere in the case of 661 persons, but enhanced the sentences of 22, modified those of 60, and reversed those of 170. It ordered new trials or further inquiry in the cases of 32 persons, and the cases of 67 persons remained pending at the end of the year.

Courts of Sessions.

The Courts of Sessions had before them the appeals of 1,830 persons against convictions by Assistant Sessions Judges and First Class Magistrates, as compared with 1,624 in the preceding year. The appeals of 37 persons remained undisposed of at the close of the year. Of the remainder the appeals of 701 persons were rejected, in the cases of 503 the original sentence or order was confirmed, in those of 213 it was modified and in those of 352 reversed; a new trial was ordered in the case of 23 persons and 5 cases were referred to the High Court or Sadar Court. The Courts of Sessions had before them for revision the proceedings in cases involving 931 persons as compared with cases involving 703 persons in the year 1891. As regards 645, the original decision was not interfered with, as regards 2 it was modified, as regards 27 proceedings were quashed, and in 49 a new trial was ordered; the cases of 180 were referred to the High Court, and those of 28 were pending at the close of the year.

Magistrates.

The District Magistrates and other First Class Magistrates with appellate powers had before them appeals of 3,594 persons against 3,713 in 1891, and 3,954 in 1890, with the following results:—

	1890.	1891.	1892.
Died, escaped or were transferred	...	1	3
Appeals rejected	809	851	809
Sentence confirmed	1,794	1,569	1,563
Sentence modified	441	314	330
Sentence reversed	800	892	806
Proceedings quashed	15	...	4
New trial or further enquiry ordered	16	22	39
Referred to High Court	6	...	...
Pending at the close of the year	73	64	4

The District Magistrates reviewed the proceedings in cases involving 1,022 persons, as compared with cases involving 1,384 persons in the year 1891. They declined to interfere in cases involving 788 persons, and referred the cases of 143 to the High Court.

Trials by jury or with assessors.

Trials by jury are held only in the High Court, the Courts of Sessions and in the Courts of Magistrates under Chaper X of the Code of Criminal Procedure. In the High Court a jury consists of nine persons. In most districts, trials in the Courts of Sessions are held with the aid of assessors. In the districts of Belgaum, Poona, Thána, Surat, Ahmedábád and the city of Karáchi certain offences are tried by a jury of five persons.

There were 38 cases tried by jury in the High Court as compared with 63 in the preceding year, in all of which the Judge approved of the verdict of the jury. In the Courts of Sessions mentioned above, there were 174 cases tried by jury during the year under report, in 164 of which the Sessions Judge accepted the verdict. In the remaining 10 cases the Judge objected wholly to the verdict. The Judges referred all these cases to the High Court, which refused to interfere with the verdict in 3 cases, and set aside the verdict in 4 cases. Three cases remained pending in the High Court at the end of the year. In the Magistrates' Courts under Chapter X of the Code of Criminal Procedure, one case was tried by jury, in which the verdict was accepted. In the other Courts of Sessions 694 cases were tried with the aid of assessors as compared with 671 in the preceding year. In 481 of these the Judge agreed with the assessors. In 70 cases the Judge differed from one, and in 143 from both assessors. There were 26 cases in which the opinions of the assessors were not taken.

Prisons.

Prison population.

While the total number of convicts and under-trial prisoners admitted to the jails of the Bombay Presidency during the year fell to 52,682 from 53,540 in the previous year, the number of convicts admitted increased from 15,931 to 16,209. The following table gives the figures for the past five years:—

Year.	Total admission.	Admissions of convicts.	Proportion of admissions of convicts to total admissions.
1888	48,847	15,276	31 per cent.
1889	54,216	17,111	31 "
1890	52,538	15,849	30 "
1891	53,540	15,931	30 "
1892	52,682	16,209	30·7 "

This shows that since 1888 the total number of admissions has never been less than 50,000. The daily average jail population was larger than in the preceding year, having risen from 6,976 to 7,228; but there was very little variation in the average duration of the sentences inflicted. There was an increase in the proportion of sentences of above one and below three months; but there was a decline in that of sentences of above three and less than six months' imprisonment. The number of sentences of imprisonment for a term exceeding ten years increased from 14 to 25; while the number of convicts sentenced to death fell from 59 to 52. The extent to which transportation was resorted to in the year under

review as compared with the four years preceding will be apparent from the following table:—

Year.	Sentences of Transportation.	
	For Life.	For a Term.
1888	97	96
1889	135	100
1890	151	104
1891	125	47
1892	123	26

From this it appears that while the number of sentences of imprisonment for terms exceeding ten years increased since 1890 by 312·5 per cent, the number of sentences of transportation decreased by 58·4 per cent.

Disposal of Convict

The following table shows the number and disposal of convicted prisoners (male and female) during 1891 and 1892:—

	1891.	1892.
Transferred to other jails—		
To undergo sentence	3,469	3,142
For transportation beyond the seas, &c. ...	149	79
Released on appeal	914	865
Do. on expiry of sentence	13,513	14,031
Do. under remission rules	787	765
Do. by order of Government on account of sickness	3	4
Do. on other grounds	2	8
Transported beyond seas	126	112
Transferred to Lunatic Asylums	8	3
Escaped	21	14
Executed	38	25
Died	235	264
Number remaining on 31st December ...	7,114	7,207
Total ...	26,379	26,519

The percentage of convicts released on appeal fell from 5·7 in 1891 to 5·3 in the year under report.

Escapes.

The number of escapes in the year was 28, the same as in the preceding year, and that of recaptures 27; out of the latter, only 14 were convicts who escaped during the year under review.

Reconvicted prisoners.

Out of the total number (16,209) of convicts admitted to jail, 2,258 had been previously convicted; and of this number 1,662 were identified before trial. The figures for the previous year were 2,393 and 1,514 respectively. The number of prisoners classified by Courts on conviction as habitual offenders was 1,015 during the year under review as against 651 in 1891, a sign that the organization for identifying prisoners has made a considerable advance.

Juvenile offenders.

The number of juvenile convicts admitted to jail during the year was 111 as against 123 in 1891.

Jail offences and punishments.

The number of jail offences committed by prisoners during 1892 rose from 3,868 to 4,390. Among these there were 786 cases of smoking and possession of forbidden articles as against 705 cases in 1891; and 33 criminal offences as against 24 in the preceding year. The number of instances of the infliction of corporal punishment was 101 as against 108, that of solitary confinement with reduced diet 529 as against 729, and that of other punishments 3,627 as against 2,948. The conduct of the convict officers again showed a slight falling off. There were 55 convicts under instruction in jail.

Under-trial prisoners.

The number of under-trial prisoners received into district jails during the year was 3,138 as against 3,471 in the previous year, and the number of those received into subordinate jails was 30,139 as against 30,538. The total number of admissions during the year was therefore 33,277 as against 34,009, a considerable decline. As compared with one escape from a lock-up in 1891, there were 6 escapes from subordinate jails and 11 from lock-ups. The number of deaths of under-trial prisoners in all jails and lock-ups increased from 13 in 1891 to 29 in 1892. There were in all jails and lock-ups 663 prisoners awaiting trial on 31st December 1892.

Civil jails.

There was a decrease in the number of civil prisoners admitted during the year, 1,770 as against 1,912; but this notwithstanding the daily average (114) was higher than in 1891. The number remaining in jail at the end of the year was 136 as against 120 last year.

Employment of convicts.

The percentages of convicts employed on manufactures and extra-mural labour were respectively 31·1 and 19·1 as against 31·0 and 18·9 in the preceding year. The following

table shows the total realizations from labour exclusive of that devoted to jail buildings and repairs :—

	1891.	1892.
	Rs.	Rs.
Garden profits	2,159	4,136
Factory profits	52,822	49,370
Extra-mural convict profits	88,698	64,632
Total ...	1,43,679	1,18,138

The diminution in profits was mainly due to the fact that the Nára gang was unemployed for three months of the year and that the earnings of the Hyderábád jail had not been adjusted. The average profit per prisoner was for manufactures Rs. 22-12-10 per head as against Rs. 25-5-2 in 1891, and for extra-mural works Rs. 48-8-10 as against Rs. 70-1-10.

Financial results.

The financial results of the year were far from satisfactory. The net cost to Government after deducting the actual cash realizations was Rs. 4,42,997 as compared with Rs. 3,77,528. The increase was due almost entirely to the high price of food-grains during the year. The cost of inspection and general superintendence was Rs. 27,369 as against Rs. 25,579 in 1891. The net cost to Government for each prisoner was Rs. 55-3-0 as against Rs. 48-6-0.

Mortality.

The following table compares the sickness and mortality amongst convicts and under-trial prisoners in central and district jails and in subordinate jails and lock-ups respectively :—

	1891.	1892.
Average daily strength in jails and lock-ups...	7,799	8,022
Number admitted into hospital	5,269	6,311
Daily average sick	196·71	234·93
Deaths	253	293
Ratio per mille	32·4	36·5

The increase in the number of deaths was largely due to the appearance of pneumonia in an epidemic form at Shikárpur, where in all 67 deaths occurred. Of the remaining jails Kaira was the most unhealthy, a fact due to the excessively heavy rainfall in Gujarát in 1892. Other jails where the mortality exceeded 33 per mille were Ahmedábád, Surat, Násik, Thána, Hyderábád, Nára and Shikárpur.

Reformatory Schools.

Yerwada Juvenile Reformatory School.

During the year the number of boys admitted was 36 or 5 less than in the preceding year. These, with the 80 boys on the rolls at the beginning of the year, made the total confined 116. Of this number two were transferred to another prison, two were released on appeal and seven on the expiry of their sentences, leaving 105 boys in the school at the end of the year, as compared with 80 at the end of the preceding year. Of the 36 boys newly admitted, seven had been previously convicted.

The year was a very unhealthy one, admissions to hospital numbering one hundred and fifty-six or more than double the total for the preceding year. There were however no deaths among the boys.

Discipline was well maintained throughout the year, the proportion of punishments to the number of boys falling from 45·6 per cent. in the preceding year to 44·2 in that under review. Out of the 49 boys whose career subsequent to their release was ascertained, thirteen were found to be following the trades taught them in the school, fifteen were earning their livelihood as labourers, eight were otherwise employed, two were at school, one was unemployed, while no less than nine had relapsed into a career of crime.

Financial results.

The financial results of the factory worked by the boys were not satisfactory, the net profits amounting to Rs. 502 only, or Rs. 202 less than in the preceding year. The cost of maintenance, however, fell from Rs. 132 per head in 1891 to Rs. 122 in the year under review.

Civil Justice.

Area, Population, Courts and Judges.

The subject of this section is the administration of Civil Justice by all the Civil Courts in the Bombay Presidency, including the Province of Sind, but excluding the Courts at Aden. The territories to which this section relates are the Regulation Provinces within the original or appellate jurisdiction of the High Court, and the Province of Sind. The area and population of these territories have been given in the preceding section, relating to Criminal Justice.

The following statement shows the numbers and designations of the regular Civil Courts which come within the scope of this section. The Courts of Cantonment Magistrates

and Mámlatdárs are not included, as the discharge of the civil functions occupies but a very small proportion of their time.

Regulation Provinces.

The High Court.
The Court of Small Causes in Bombay.
13 District Judges.
2 Agents for Sardárs in the Deccan and Southern Marátha Country under Regulations XXIX of 1827 and VII of 1830.
1 Joint Judge.
2 Assistant Judges with full powers.
1 Assistant Judges.
5 Small Cause Courts (presided over by three Small Cause Court Judges).
15 First Class Subordinate Judges.
89 Second Class Subordinate Judges.
2 Inámdárs and Jághirdárs with powers under Regulation XIII of 1830.
89 Village Munsifs under the Dekkhan Agriculturists' Relief Act.

Sind.

The Sadar Court.
4 District Judges (including the Deputy Commissioner of Thar and Párkar).
1 Assistant Judge.
1 Judge of the Court of Small Causes.
12 Subordinate Judges.
2 Deputy Collectors, 7 Mukhtyárkars, and 7 Head Munshis in Thar and Párkar with powers to try civil suits.

Receipts and expenditure.

The total receipts of all Courts in the Presidency amounted to Rs. 34,01,149 as compared with Rs. 31,93,153 in the year 1891, the expenditure being shown at Rs. 45,97,374 as compared with Rs. 46,90,930 in the previous year. The following table shows the receipts and expenditure of the High Court as compared with the preceding year:—

	1891.		1892.	
	Receipts.	Expenditure.	Receipts.	Expenditure.
	Rs.	Rs.	Rs.	Rs.
High Court (Original Side)	4,72,617	3,74,482	5,40,881	3,32,731
High Court (Appellate Side)	73,168	2,84,847	75,028	2,79,438

Original jurisdiction: Number of suits instituted.

The total number of suits instituted in all the Courts during the year 1892 was 207,113 as compared with 194,681 in the year 1891, showing an increase of 12,432 suits. The increase was most marked in the Courts of Subordinate Judges, and in the Presidency Small Cause Court, the Village Courts, the Mofussil Small Cause Courts, and the Revenue Courts, while the District Courts showed a decrease of 108 suits. The province of Sind also showed a decrease. The number of suits instituted in the High Court was 1,400 as compared with 1,419 in the year 1891. In the original jurisdiction the number of suits instituted showed a decrease of 10. The insolvency suits in the High Court amounted to 685, being 4 more than in 1891. There were 3 matrimonial suits in the High Court as against 6 in 1891, but none in the Sadar Court in Sind. The number of original suits instituted in the District Courts fell from 497 in 1891 to 389 during the year under report. The decrease was most marked in the province of Sind and in the districts of Broach and Belgaum. There was an increase of 8,053 in the suits filed in the Courts of Subordinate Judges, and of the Jághirdárs and Inámdárs exercising civil jurisdiction as compared with the preceding year. This increase was distributed among fourteen districts, the largest being in that of Khándesh, the District Judge of which attributed it partly to a good outturn of crops and partly to the belief on the part of the money-lenders in the probable extension of the Dekkhan Agriculturists' Relief Act to that district. There was a decrease in five districts, it being most marked in the district of Shikárpur (including Upper Sind Frontier). The number of suits instituted in the Small Cause Courts during the year under report was 50,455 as compared with 47,981 in the preceding year, an increase of 2,474. This increase was distributed among three of the Small Cause Courts, it being most marked in the case of the Bombay Small Cause Court. There was a decrease in four of the Small Cause Courts, which was most marked in the case of the Karáchi Small Cause Court. The number of suits filed before Village Munsifs rose from 6,001 in 1891 to 7,761 during the year 1892.

Classification of suits.

Classified according to subject-matter, the suits instituted during the year under report compare with those of the preceding year as follows:—There was a considerable increase of 8,951 in suits on contracts in writing, of 3,042 in those for goods sold, of 1,417 in those for money had and received, of 338 in those for immoveable property, of 316 in those other suits for money or moveables, of 238 in those suits for recovery of possession or removal of obstruction under Bombay Act III of 1876 and of 218 in those for rent of houses and property other than land, while there was a decrease of 1,415 in suits on account stated, of 1,369 in these suits on contracts not in writing, of 278 in other suits under the Specific Relief Act, of 195 in suits for wages, work and materials, of 147 in suits for damages and of 115 in suits to declare and establish right to real property, &c. In the High Court suits on contracts in writing for moveable property or value thereof, for partition, and

miscellaneous suits showed a decrease of 39, 17, 15 and 13 respectively, while other suits under the Specific Relief Act, suits to declare and establish rights to real property, &c., other suits for money or moveables, suits on account stated and administration suits showed an increase of 20, 19, 17, 16 and 12 respectively. There were also smaller variations under several other heads.

Value of suits.

The aggregate value of the subject-matter of suits instituted during the year 1892 on the Original Side of the High Court amounted to Rs. 66,29,369 against Rs. 80,19,866 in the year 1891, showing a decrease of Rs. 13,90,497. The total value of claims in the Mofussil Courts was Rs. 1,80,92,428 against Rs. 2,27,77,303 in the preceding year, showing a decrease of Rs. 46,84,875. The total value of claims in the Presidency Small Cause Courts amounted to Rs. 34,51,562 against Rs. 33,56,631 in the year 1891, showing an increase of Rs. 94,931. In the 207,113 suits instituted during the year under report the value of the claims did not exceed—

Rs. 10 in 31,442.		Rs. 500 in 33,753.
Rs. 50 in 86,909.		Rs. 1,000 in 3,589.
Rs. 100 in 37,187.		Rs. 5,000 in 2,141.
	Rs. 10,000 in 243.	

In 197 suits the claims exceeded Rs. 10,000 in value. There were also 11,652 suits, the value of which cannot be estimated in money. There was an increase in all the classes of suits except in those in which the value of the claims did not exceed Rs. 10,000 and in those in which it exceeded Rs. 10,000.

Disposal of suits.

The total number of suits disposed of by the several classes of Civil Courts during the year 1892 amounted to 206,843 as against 197,898 in the preceding year, showing an increase of 8,945. The arrears at the beginning of the year were 31,995 and at the close of the year 34,092. The following table exhibits the number of suits decided by the several classes of Civil Courts during the year under report as compared with the preceding year :—

	1891.	1892.
High Court ...	1,296	1,829
Sadar Court in Sind ...	.....	1
District and Assistant Judges ...	538	457
Subordinate Judges ...	126,944	131,504
Cantonment Magistrates ...	387	790
Jághirdárs and Inámdárs ...	17	28
Small Cause Courts ...	48,970	50,323
Village Munsifs ...	6,009	7,813
Mámlatdárs under Bombay Act III of 1876 ...	13,737	14,098
Total ...	197,898	206,843

These figures show a general increase in all classes of Courts except in the Courts of District and Assistant Judges.

Details of suits disposed of.

The following table shows the details of suits disposed of by the High Court on its Original Side during the year under report as compared with the preceding year :—

		1891.	1892.
Disposed of without trial ...		246	708
Compromised ...		78	92
Decreed on confession ...		12	10
Decreed *ex-parte* ...		489	461
Dismissed *ex-parte* ...		275	308
On reference to arbitration ...	For plaintiff ...	.....	.....
	For defendant ...	.....	.....
With contest ...	For plaintiff ...	142	169
	For defendant ...	54	81
Total ...		1,296	1,829

There were 1,309 suits pending at the close of the year under report against 1,683 pending at the close of the preceding year.

Manner of the disposal of suits.

The table below shows the manner in which suits were disposed of in the Mofussil and the Bombay Small Cause Courts during the year 1892 as compared with the year 1891 :—

		1891.	1892.
Disposed of without trial ...		19,364	19,394
Compromised ...		38,452	38,367
Decreed on confession ...		22,565	23,501
Decreed *ex-parte* ...		58,861	64,102
Dismissed *ex-parte* ...		2,594	2,500
On reference to arbitration ...	For plaintiff ...	1,102	1,247
	For defendant ...	65	87
With contest ...	For plaintiff ...	37,334	38,585
	For defendant ...	10,256	9,617
Total ...		190,593	197,200

There were 32,783 suits pending at the close of the year as compared with 30,311 pending at the end of 1891.

The following table exhibits the average duration of suits in the various classes of Courts as compared with the preceding year:— Duration of suits.

Class of Courts.	Average number of days during which suits lasted.			
	1891.		1892.	
	Contested.	Uncontested.	Contested.	Uncontested.
Unpaid Tribunals—				
Jaghirdárs and Inámdárs	123	79	44	52
Paid Sub-divisional Courts—				
Subordinate Judges' Courts	133·713	67·132	131·169	56·335
Cantonment Magistrates' Courts ...				
Mámlatdárs' Courts	12·430	6·954	74·390	68·636
Small Cause Courts	81·334	46·723	79	46·963
District Courts	299	203·8	328·850	144·596
High Court	262	119·679	306	319·141
Presidency Small Cause Court	61	39·5	47	39

The average duration of suits increased in the Mámlatdárs' Courts and in the High Court, while it decreased in the Courts of Jághirdárs and Inámdárs, Subordinate Judges and Cantonment Magistrates and in the Presidency Small Cause Court. In the District Courts it increased in the case of contested suits but decreased in the case of uncontested ones, while in the Mofussil Small Cause Courts it decreased in the case of contested suits and remained almost the same in the case of uncontested suits. Of the 1,309 cases pending in the High Court at the close of the year, 860 had been filed for more than three months. Of the 32,783 suits pending in the Subordinate and Small Cause Courts at the end of the year, 11,127 had been instituted for more than three months.

Besides the regular suits disposed of by the Civil Courts, they also decided 20,845 miscellaneous cases out of 24,659 which came before them, leaving 3,814 pending at the end of the year. Miscellaneous suits.

The total number of appeals before all the Appellate Courts during the year under report was 11,263, of which 6,041 were disposed of, and 5,222 remained pending at the close of the year. The number of appeals filed (including those that were re-admitted), disposed of and left pending before the several Appellate Courts of the Presidency during the last two years is shown in the table given below:— Appeals.

	1891.			1892.		
	Instituted.	Disposed of.	Pending.	Instituted.	Disposed of.	Pending.
High Court.						
Original Side	29	38	14	63	41	36
Appellate Side ... First Appeals ...	196	185	202	215	182	235
Appellate Side ... Second do. ...	1,047	905	855	1,005	937	923
Sadar Court in Sind. First do. ...	16	12	16	25	16	25
Sadar Court in Sind. Second do. ...	14	13	6	31	24	13
District Courts.						
Ahmedábád, including Kaira and Panch Mahále.	425	539	196	423	282	337
Surat	170	107	104	118	85	137
Broach	111	71	227	78	49	256
Khándesh	257	413	248	273	381	140
Thána, including Kolába	356	382	413	343	423	333
Násik	310	383	147	186	273	60
Ahmednagar	247	199	461	216	470	207
Poona	285	490	85	270	304	51
Sholápur-Bijápur	269	463	367	370	314	423
Sátára	404	421	501	330	454	377
Belgaum	215	126	177	247	167	257
Dhárwár	377	230	325	411	341	395
Ratnágiri	574	567	726	701	747	680
Kánara	251	221	104	217	219	102
Karachi	15	21	6	21	20	7
Hyderábád	69	87	55	74	66	63
Shikárpur	156	96	247	157	239	165
Thar and Párkar	3	4	...	5	5	...
Court of the Political Agent, Kolhápur and Southern Marátha Country	2	2	...	2	2	...

The number of appeals instituted on the Original Side of the High Court rose from 29 in 1891 to 63 in 1892. On the Appellate Side of the High Court the number rose from 196 to 215 in the case of first appeals, while it fell from 1,047 to 1,005 in the case of second appeals. The number of first and second appeals filed in the Sadar Court in Sind rose from 16 and 14

in 1891 to 25 and 31, respectively, during the year under report. The number of appeals filed in the District Courts (including those in Sind) fell from 4,496 in 1891 to 4,442 during 1892. The districts of Ratnágiri, Sholápur-Bijápur, Dhárwár, Belgaum, Khándesh, Karáchi, Hyderábád, Shikárpur, and Thar and Párkar showed an increase in the number of appeals filed during the year under report, while those of Násik, Sátára, Surat, Kánara, Broach, Ahmednagar, Poona, Thána (including Kolába), and Ahmedábád including Kaira and Panch Maháls showed a decrease, especially in the first named district. In the High Court there were 77 appeals from decrees of Judges sitting on the Original Side, including 17 references from the Bombay Court of Small Causes. Of these 10 were dismissed for default or otherwise not prosecuted, while in 15 cases the decrees were confirmed, in 8 modified and in 2 reversed, and 6 cases were remanded, withdrawn or dismissed. There were 36 such appeals, and references pending at the close of the year. From the Mofussil Courts there were 417 appeals from original decrees, of which 182 were disposed of, and 235 remained pending. The number of second appeals before the High Court was 1,860 against 1,760 in 1891, of which 937 were disposed of. The total number of appeals from decrees before the District Courts amounted to 8,831, including 1,296 decided by Subordinate Judges with appellate powers, as compared with 9,211 in 1891. There were 254 miscellaneous appeals before the Appellate Courts of which 198 were disposed of, and 56 remained pending. The number disposed of in the preceding year was 178, sixty-seven being left pending at the end of the year. The High Court on its Appellate Side disposed of 231 applications under its extraordinary jurisdiction, 19 references under the Civil Procedure Code, 2 references under the Stamp Act I of 1879, one for confirmation of decree for dissolution of marriage under Act IV of 1869, and one reference under Bombay Act III of 1876. There were left pending at the end of the year fifty-eight such applications and references.

Execution of Decrees.

The total number of applications for execution of decrees before all the Civil Courts during the year 1892 amounted to 271,180 as compared with 267,850 in 1891. These were dealt with as follows:—

In 37,513 satisfaction was obtained in full.
In 48,378 do. do. in part.
132,303 applications were wholly infructuous.
358 applications were transferred to other districts and provinces for disposal; and
48,945 remained pending at the close of the year.

No details are given here of 3,683 applications disposed of by Village Munsifs under the Dekkhan Agriculturists' Relief Act.

Judgment-debtors were arrested without being imprisoned in 3,457 cases and were actually imprisoned in 1,994 cases. The corresponding numbers during the year 1891 were 3,611 and 1,956 respectively. The total amount recovered by all the Courts in execution proceedings amounted to Rs. 51,74,901 as compared with Rs. 43,78,633 in 1891.

Insolvency, &c.

The number of applications under Chapter XX of the Civil Procedure Code in the mofussil amounted to 326 as compared with 354 in 1891, 296 in 1890, and 265 in 1889. The number of such applications in the four districts, subject to the operation of the Dekkhan Agriculturists' Relief Act was 42 as compared with 34 in 1891. In the Insolvency Court in Bombay, constituted under 11 and 12 Victoria Chapter XXI, there were 685 applications presented as compared with 681 in 1891 and 709 in 1890. The number of civil cases tried with the aid of assessors was 15 as compared with 28 in the preceding year, all being cases under the Land Acquisition Act (X of 1870). There was one case disposed of in the Pársi District Matrimonial Court and four such cases in the Pársi Chief Matrimonial Court.

Inspections: quality of work done.

During the year under report six of the District Judges, one Joint Judge, one Assistant Judge, F. P., and one Assistant Judge inspected 35 of the Courts subordinate to them. The general results of these inspections, as reported to the High Court, were, on the whole, satisfactory, but due notice was taken of any cases of irregularity or laxity discovered. Such of the work of the Subordinate Judges as came before the High Court in the hearing of civil appeals showed that these officers as a body discharged their duties with intelligence and industry. The work in many Subordinate Courts is exceedingly heavy and cannot be adequately performed by a single Judge.

Execution of Decrees of Civil Courts by the Revenue Department.

The following statement shows the number of decrees of Civil Courts for execution and executed, by Collectors of districts during the year 1892:—

Divisions.	Number of Decrees for disposal.			Number of decrees disposed of.	Number of decrees returned to Civil Courts.	Balance on 1st January 1893.
	Balance on 1st January 1892.	Received during 1892.	Total.			
Northern Division	1,689	1,634	3,323	1,506	282	1,535
Central "	3,083	3,457	6,540	2,663	1,010	2,867
Southern "	13	20	33	17	13	3
Total ...	4,785	5,111	9,896	4,186	1,305	4,405

In the preceding year 5,151 decrees were received for execution, making, with the 4,445 decrees on hand at the beginning of 1891, a total of 9,596 for disposal. The increase during 1892 was mainly due to the introduction of the system into the Collectorates of Thána and the Panch Maháls.

In the Northern Division out of the 3,323 decrees for disposal, 1,506 were disposed of as against 1,524 in 1891. Of the 1,506, 692 or 38·7 per cent ended in settlement by mutual agreement as against 738 or 40·4 per cent in 1891. The largest proportion of decrees was disposed of in Kaira. In the Central Division, out of 2,663 decrees disposed of, 1,842 or more than 50 per cent. were settled by mutual agreement, as against 1,731 in 1891. In 766 cases property was ordered to be sold. In the Southern Division, Bijápur was the only Collectorate in which Civil Court decrees against agriculturists were transferred to the Collector for execution. Out of 33 cases, 17 were disposed of, 5 by mutual agreement and 12 by sale. The average price of unalienated land sold in execution increased in nearly every district. In the Northern Division the highest price realized was in Kaira—thirty times the assessment, and in the Central Division, in Poona, 25 times the assessment. The price in Bijápur rose from 16 to 18 times the assessment.

THE DEKKHAN AGRICULTURISTS' RELIEF ACT XVII OF 1879.

There were, during the year under review, two additional Subordinate Judges, as against one in the preceding year, the total being thus 27 as against 26 in 1891. The tendency to an increase in the arrears in the Courts generally was again noticeable during the year. Judges and Courts.

The number of fresh proceedings of all kinds, including suits before Munsifs and applications to Conciliators, brought before the Courts during the year, as compared with the number for 1890 and 1891, will be seen from the following table:— Suits generally.

	1890.	1891.	1892.
Suits in the Courts	15,413	15,674	15,624
„ before Village Munsifs	7,207	6,001	7,761
Applications to Conciliators	24,804	22,527	23,957
Total ...	47,424	44,202	47,342

There was an increase in the total amount of litigation as compared with that for 1891; but the total for the latter year was exceptionally low and the figures for the year under report were not really above the average. Out of the 15,624 suits filed in the Courts, 9,944 or 63·6 per cent. of the whole number fell under Chapter II of the Act. This percentage was practically the same as that in 1890 (63) and 1891 (64). There was very little variation in any of the classes of suits under this chapter. The number of suits against non-agriculturists under clause (*x*) section 3 of the Act, which was abnormally large in the previous year owing to the institution of a large number of municipal suits in Sátára and Tásgaon, was not in 1892 above the average. The percentage of purely agriculturist cases brought before the Subordinate Judges decreased by one per cent., while non-agriculturist cases increased proportionately. Adding the number of conciliation agreements filed (3,981) to the total number of suits filed (9,944), and that of purely agriculturist cases, it appears that 7,594 out of 13,925 cases or, (as in 1891), 54 per cent. of the total number of institutions concerned agriculturists only.

The total number of redemption suits instituted was 810 as against 742, an increase of 9 per cent. Redemption suits.

The number of suits under Section 3, clause (*y*) was 766 as against 784 in the preceding year. Nearly 48 per cent. of the total came from the Sátára district. Suits by mortgagees.

The summary procedure laid down in Section 9 was, as usual, not followed in most of the Courts. Out of 683 cases below Rs. 10 in value, the summary procedure was followed in 82 only. Summary procedure.

The consent of parties to extend the provisions of Chapter II to suits above Rs. 100 and below Rs. 500 was obtained in 421 suits out of a total of 1,057 such suits disposed of. This gives a proportion of nearly 40 per cent., being one per cent. less than in the previous year. Out of the remaining 636 suits, there was no occasion to ask the consent in 279 cases, and consent, though asked, was refused in 357, or slightly less than 34 per cent. cases against 34·5 per cent. in the previous year. There was thus a slight improvement in the diminished proportion of refusals this year, balanced by a slight decrease in the proportion of consent cases. Consent suits.

In the beginning of the year, the total arrears were 5,406, and the institutions were 15,624. The total for disposal was thus 21,030, out of which 15,154 suits were disposed of, leaving 5,876 as the balance at the end of the year. The arrears of suits under Chapter II were 2,128. This figure does not correspond with the balance shown in the previous year (2,133), but the difference of 5 suits is accounted for in the statements submitted by the Subordinate Judges as due to cases which, on further inquiry, were found not to fall under Chapter II. The institutions were 9,944 under Chapter II, and the total for disposal was Disposal of suits under Chapter II.

thus 12,072, out of which, 9,770 suits were disposed of, leaving a balance of 2,302 at the end of the year. All the districts showed an increase in the arrears, the increase being 20 per cent. in the Poona district, 5 per cent. in the Sátára district, 9 per cent. in the Ahmednagar district, and about 3 per cent. in the Sholápur district. The total increase was about 8 per cent. in all the districts. The following statement summarises the results for the years 1891 and 1892:—

Classification of disposals.	1891.	1892.
Plaint returned	8	15
Dismissed for default	695	739
Decided *ex-parte*	602	587
Admitted	2,153	2,102
Contested	3,435	3,316
Awarded in whole	1,997	1,915
Awarded in part	996	893
Rejected	442	508
Abated or dismissed	18	11
Compromised	2,920	2,820
Withdrawn	194	159
Disposed of by arbitration	5	7
By transfer	25	14
Total ...	10,055	9,770

It will be seen from this statement that the total disposals under Chapter II were 174 less than the institutions, and 285 less than the disposals of the previous year. *Ex-parte* decisions were passed in 587 or 6 per cent. of the total number of cases, the proportion being the same as in the previous year.

Comparing results with those of 1891, and excluding cases in which the plaint was returned, or the suit abated, or was disposed of by arbitration or by transfer (numbering in all 47), the remaining suits, numbering 9,723, were disposed of as follows:—

Classification.	1891.	1892.
	Per cent.	Per cent.
Decided *ex-parte*	6·	6·
Dismissed	6·9	7·6
Withdrawn	2·	1·6
Compromised	29·	29·
Admitted	21·5	21·6
Contested	34·4	34·1

The proportion of agriculturist cases contested stood at 43·8, and of non-agriculturist cases contested at 28·5.

Suits of which past history was examined.

The inquiry into the past history of suits under Sections 12 to 14 was made in 435 cases as against 466 cases in the previous year, that is to say in 15 per cent. of the total number of suits instituted and in 34·5 per cent. of the number of contested suits. The proportion abated in those cases in which the past history was examined was 28 per cent. of the amount claimed against 21 per cent. in the previous year.

Redemption suits.

There were 457 redemption suits instituted under Chapter II and 353 outside the chapter, or 810 in all against 742 in 1891, an increase of 9 per cent. This was due entirely to a large increase in this sort of litigation in the Ahmednagar district. In 154 out of the 348 redemption suits decided under Chapter II, the claims were either wholly rejected or else no decree was passed. In the remainder (194) the amount of mortgage debt claimed was Rs. 25,917 as compared with Rs. 26,366 in 1891, while the amount actually awarded was Rs. 18,396, against Rs. 18,501 in the previous year. In the 353 redemption suits not under Chapter II the value of the debt claimed was Rs. 76,847, and of that decreed Rs. 54,203 as against Rs. 1,01,640 and Rs. 67,320 respectively in the preceding year. The Conciliators settled 119 claims during the year as against 133 in 1891. The value of the claims was Rs. 41,576 and the amount awarded in settlement Rs. 38,695, the percentage of abatement being thus 7 as against 19 in 1891. During the thirteen years that the Act has been in force the Courts and Conciliators have settled in all 20,567 claims valued at Rs. 37½ lákhs at nearly Rs. 26½ lákhs.

Instalment of decrees and execution of decrees.

The following table shows the measure of success obtained in the recovery of instalments on applications for execution made in the past two years under decrees granting instalments:—

Years.	Amount claimed in old applications in arrears.	Amount claimed in applications filed during the year.	Total claimed.	Amount claimed in applications in which satisfaction was obtained in full or in part.	Amount claimed in applications wholly infructuous.	Amount actually realized.	Amount claimed in applications which remained pending at the close of the year.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1891...	1,50,393	4,66,622	6,17,015	1,81,046	2,75,820	83,548	1,60,149
1892...	1,60,426	4,92,941	6,53,367	1,93,007	2,87,738	89,728	1,72,622

Although there was an increase in the sums of money involved, the percentage of recoveries remained practically the same as in the previous year. There was, however, a large increase in the amounts paid voluntarily; so that the total sum actually paid through the Court amounted to Rs. 1,52,806, the highest total yet reached.

Duration of suits.

The average duration of suits falling under Chapter II in all the Courts was 3 months and 17 days against 3 months and 13 days in the previous year.

Costs.

The total value of suits of 1892 was Rs. 5,35,921 against Rs. 5,36,434 in 1891. The total cost amounted to Rs. 67,399 against Rs. 68,948 in 1891, giving a proportion of Rs. 12-9-2 per cent. against Rs. 12-13-7 in 1891. The proportion was highest in Sátára (Rs. 13-2-8) and lowest in Sholápur (Rs. 11-7-9).

Village Munsifs.

The number of village Munsifs was increased from 85 to 89 during the year. Concurrently with the increase, there was a large increase in the amount of work disposed of by them. No fewer than 7,761 new suits were instituted during 1892 as compared with 6,001 in 1891. The arrears at the beginning of the year were 304 and the disposals numbered 7,813, leaving a balance of 252 undisposed of on the 31st December 1892.

Conciliators.

The number of Conciliators increased from 221 to 223. The applications made to them numbered 23,957, showing an increase of 1,430 over the corresponding number (22,527) in the previous year. The arrears at the beginning of the year were 3,233 and the balance at the end of the year was 3,575, the disposals in all being 23,773 against 22,898 in the previous year. The following table compares the disposal of applications with the results for the previous year:—

	Withdrawn or compromised.	Struck off in default.	Agreements effected (Sec. 44.)	Conciliation failed.
1891	1,548	6,075	3,893	11,183
1892	1,441	6,234	4,396	11,529

The number disposed of by arbitration and transfer was trifling. The percentage of cases in which agreements were effected was therefore 18·5, or the same as in 1890. The agreements relating to claims of the value of Rs. 6½ lákhs were settled at nearly Rs. 5,10,000, showing an abatement of 20 per cent.

Refund system.

The system of refunding half the Court-fees in cases against agriculturists, when settled amicably at the first hearing, was in force in 11 tálukas, where the conciliation system did not obtain. The number of certificates issued fell from 564 in 1891 to 487, and the amount refunded was Rs. 980 against Rs. 969 in the previous year.

Revision.

The records of about 70 per cent. of the suits decided under Chapter II by the Lower Courts were examined by the Special Judge and his two Assistants; while out of 628 revision cases, (including a balance of 118 from the previous year), 504 were disposed of. The original decrees were confirmed in 64 per cent. of the applications and amended in 13 per cent. In 101 cases or 24 per cent. the decree was either reversed or reversed and remanded for re-hearing of the suit, while three cases were returned for want of jurisdiction and nine were compromised.

Deeds executed by agriculturists.

The following statement shows the number and value of sales, mortgage-bonds and money-bonds executed during the past two years:—

Years.	Sale-deeds.	Value of sale-deeds.	Mortgage-bonds.	Value of mortgage-bonds.	Simple bonds.	Value of simple bonds.
		Rs.		Rs.		Rs.
1891...	16,643	20,88,668	46,245	45,49,980	27,152	15,28,839
1892...	18,141	23,35,383	52,645	48,67,689	29,883	17,24,266

The above statement shows an increase under every head.

Enquiry into the working of the Act.

The report of the Commission appointed to enquire into the working of the Act was submitted to the Government of India during the year.

Registration.

Registration under Act III of 1877.

Deeds registered.

During the year 1892-93 there were 177,170 registrations recorded against 168,497 in 1891-92, the increase of 8,673 transactions being equivalent to 5·14 per cent. Compulsory registrations rose from 136,265 in the earlier period to 144,670 in the past year, and optional registrations from 32,232 to 32,500. The first named class therefore showed an increase of 8,405 transactions or 6·16 per cent., and the last named one of 268 or ·83 per cent. The proportion of optional to compulsory registration during the year under review was 22·46 against 23·65 during the preceding year.

Wills and authorities to adopt.

Thirteen hundred and sixty wills were registered in 1892-93 against 1,362 in 1891-92, exhibiting a decrease of 2 or ·14 per cent. Fifty wills were deposited, 18 withdrawn from deposit, 4 opened, and 5 removed for record in Court against 35 deposited, 11 withdrawn from deposit, 7 opened and 6 removed for record in Court during the year preceding. One authority to adopt was registered during 1892-93 against 2 in 1891-92.

Values and fees.

The aggregate stated value of property affected by instruments registered in 1892-93 amounted to Rs. 8,87,09,348-5-9 against Rs. 8,09,18,805-15-7 in 1891-92, showing an increase of Rs. 77,90,542-6-2. Exclusive of wills and an authority to adopt, and also 774 instruments in which no value or consideration was shown, the average value per transaction during 1892-93 was Rs. 506-12-11 against Rs. 486-3-10 in the year preceding. Taking all classes together the average registration fee was Re. 1-12-4 during 1892-93 against Re. 1-11-9 during 1891-92.

District increases and decreases.

There was an increase in the number of registrations in each of the 19 districts of Bombay, Ahmedábád, Kaira, Panch Maháls, Surat, Kolába, Ratnágiri, Ahmednagar, Khándesh, Násik, Poona, Sátára, Sholápur, Bijápur, Kánara, Aden, Hyderábád, Shikárpur, and Thar and Párkar, and a decrease in each of the seven districts of Broach, Thána, Belgaum, Dhárwár, Deesa, Karáchi and Upper Sind Frontier.

Refusals to register.

There were 469 refusals to register during the year under review against 484 in 1891-92.

Impounded deeds.

The number of deeds impounded by registering officers during the year under report on the ground of insufficiency of stamp, was 380 against 317 in 1891-92. In 101 of such cases the deeds so impounded were held to be sufficiently stamped, in 219 the action of the impounding officer was upheld by the Collector, and 60 deeds awaited disposal at the close of the year.

Offices.

At the close of the year there were 26 registry and 219 sub-registry offices in existence against 26 registry and 218 sub-registry offices in the previous year, an additional sub-registry office (Modása) in the Ahmedábád District having been established at the commencement of the year under report.

Inspections.

During the year under review the Inspector-General examined the records of 17 registry and 24 sub-registry offices. The Inspector, 1st Division, examined 18 sub-registry offices and the general indexes of one district; the Inspector, 2nd Division, 27 sub-registry offices and the general indexes of three districts; the Inspector, 3rd Division, 22 sub-registry offices and the general indexes of one district; and the Inspector, 4th or Sind Division, 24 sub-registry offices and the general indexes of 2 districts. The registrars in all carried out 183 examinations of sub-registry offices, and 114 sub-registry offices were examined by Assistant and Deputy Collectors.

Prosecutions.

Seven persons were convicted of offences against the registration law during the year, while 9 were acquitted of the charges of the above nature brought against them, and one absconded.

Receipts.

The gross receipts of the Department for the year under review (Rs. 5,12,881) showed an increase of Rs. 30,741 on the receipts (Rs. 4,82,140) for 1891-92. This result was due to the increase in the number of registrations.

Expenditure.

The expenditure of the year decreased by the sum of Rs. 505-15-11 compared with the expenditure of the previous year, owing chiefly to the issues of books and forms in the preceding year having largely covered the requirements of the Department during the year under review.

Financial results.

The income of the Department exceeded the expenditure by Rs. 2,48,429, and if the surplus (Rs. 6,182) derived from operations under the Joint Stock Companies Act be added thereto, the total surplus for 1892-93 amounted to Rs. 2,54,611. In 1891-92 the total surplus from all sources stood at Rs. 2,24,610.

Registration under the Dekkhan Agriculturists' Relief Act XVII of 1879 as amended by Acts XXIII of 1881, XXII of 1882, and XXIII of 1886.

This Act was in operation in the four Deccan districts of Ahmednagar, Poona, Sátára and Sholápur.

There were in all 137,521 registrations during the year 1892-93 against 127,560 during the preceding year, exhibiting an increase of 9,961 transactions or 7·80 per cent. The increase was shared more or less by all the four districts. The subjoined statement shows the total number of all kinds of documents registered in each of the four districts during the year 1892-93 as compared with the figures for the preceding year, and also the increase in numbers and the ratio of increase in each district:— Number of registrations.

Districts.	Number of documents in 1891-92.	Number of documents in 1892-93.	Increase.	Ratio.
Ahmednagar	33,219	36,214	2,995	9·01
Poona	48,224	52,006	3,782	7·84
Sátára	34,008	36,069	2,061	6·06
Sholápur	12,109	13,232	1,123	9·27
Total ...	127,560	137,521	9,961	7·80

Taking the four districts together it appears that in transactions relating to immoveable property there was an increase of 8,447, the number having risen from 92,517 in 1891-92 to 100,964 in 1892-93. Registrations under the head of moveables exhibited an increase of 1,514 transactions, the number having risen from 35,043 in 1891-92 to 36,557 in 1892-93. Results in the two main classes of deeds.

Out of the total number of instruments registered in 1892-93, 6,380 deeds were executed to supplant old transactions against 6,023 deeds of the same nature executed during the preceding year, showing an increase of 357. Deeds executed to supplant old ones.

In the immoveable class in the case of sales, mortgages, and leases relating to land alone, there were registered in all in the year 41,940 transactions between agriculturists and agriculturists, and 49,172 between agriculturists and sávkárs against 37,753 in the one and 44,357 in the other case in the preceding year. Transactions between agriculturists and agriculturists and agriculturists and sávkárs.

The aggregate value of property affected by the documents registered amounted to Rs. 70,28,921 in the year under report, against Rs. 65,49,743 in the previous year. The average value per transaction, taking the results as a whole, amounted to Rs. 51-1-9 against Rs. 51-5-6, showing a decrease of annas 3-9. Aggregate value of property affected by instruments.

The total amount of fee collections on account of the drawing up and registration of deeds and of copies granted, &c., during the year was Rs. 50,978 against Rs. 47,342 in 1891-92, showing an increase of Rs. 3,636. Fee receipts.

The expenditure during the year under the several heads of charge amounted to Rs. 58,892 against Rs. 59,155 during 1891-92, showing a decrease of Rs. 263. The net financial result, taking into account Rs. 2,069-7-3, being the value of books and forms supplied by the Government Central Press, was a deficit of Rs. 9,983 during the year under review against Rs. 16,386 in the year 1891-92, showing a decrease of Rs. 6,403. Expenditure.

During the year under report the Inspector-General of Registration and Stamps visited and examined the offices of three táluka village registrars. The registrars of Ahmednagar, Poona, Sátára and Sholápur carried out the examinations of 31, 37, 21 and 8 offices respectively. The Inspectors of Registration and Stamps, 2nd and 3rd Divisions, respectively examined 10 and 3 offices. The Inspectors of village registry offices, Ahmednagar, Poona, Sátára and Sholápur examined 52, 49, 49 and 28 offices respectively, some of these offices being visited twice by the Inspector during the year. Revenue officers collectively during the year under report carried out 98 examinations of village registry offices. Inspections.

Taking the two systems of registration together the following were some of the results for 1892-93. In all, including 1,360 wills and one authority to adopt, 314,691 documents were registered; of these, excluding wills and an authority to adopt, 272,120 related to immoveable property of a stated value of Rs. 9,15,50,706 and 41,210 to moveable property of a stated value of Rs. 41,87,563; total stated value Rs. 9,57,38,269. The gross expenditure under both systems, including a hypothetical charge of Rs. 12,294-8-9 for books and forms, amounted to Rs. 3,25,413 and the gross receipts to Rs. 5,63,859. The surplus for the year under both Acts therefore amounted to Rs. 2,38,446. The year's surplus under the Joint Stock Companies' Act amounted to Rs. 6,182, and, therefore, for the year 1892-93 the total surplus of the Registration Department from all sources stood at Rs. 2,44,628 against Rs. 2,08,224 for the previous year. Summary of both systems of registration.

JOINT STOCK COMPANIES.

The number of documents registered during the year was the same as that of the previous year, viz. 615. This number included the memoranda and articles of association of the 21 companies and 4 societies newly registered, as also 17 returns received under section 4 of Act XXI of 1860. Registration.

The following table shows the financial result for 1892-93, as compared with 1891-92. It will be seen that there was a surplus of Rs. 6,181-14-0 during the year under report, as against Rs. 7,427-8-7 in 1891-92:— Financial results.

	1891-92.	1892-93.
	Rs. a. p.	Rs. a. p.
Receipts...	8,461 12 0	7,225 8 0
Expenditure	1,034 3 5	1,043 10 0
Surplus ...	7,427 8 7	6,181 14 0

Class of Companies.

Of the 21 companies registered 14 were mills and presses and 4 were trading companies. At the close of the year there were 239 companies carrying on business as against 232 at the end of preceding year. Thirteen companies went into liquidation and eleven were dissolved.

Capital.

Five companies increased their new capital during the year.

Nature of Companies.

The subjoined table exhibits the nature of the business of the several companies with their nominal and paid-up capitals. The paid-up capitals of some of the companies newly registered have not been shown, as the summaries of capitals and lists of their shareholders had not been received at the close of the year 1892-93 :—

No.	Nature of business of Companies.	Number of Companies.	Nominal Capital.	Paid-up Capital.
			Rs.	Rs.
1	Banking, Loan and Insurance	12	31,75,000	3,10,966
2	Trading	39	1,86,70,000	1,42,79,048
3	Do. new...	4	2,19,500	.....
4	Mills and Presses	148	9,83,21,055	8,28,22,100
5	Do. new	14	41,65,000	75,000
6	Planting	3	1,10,000	69,790
7	Mining and Quarrying	2	9,32,000	9,19,379
8	Ice Manufacture	5	14,27,500	10,54,875
9	Others	10	73,35,000	71,89,170
10	Do. new	2	1,00,000	20,400
		239	13,44,55,055	10,67,40,728

Local Boards' Administration.

Northern Division.

There were 6 District and 40 Táluka Local Boards in the Division. The former were presided over by the Collectors of the respective districts and the latter by Assistant or Deputy Collectors in charge of tálukas. The total number of members constituting the several Boards was 728—the same number as in the preceding year—11 being *ex-officio*, 390 nominated and 327 elected. The proportion of official and non-official members was 182 and 546 as against 183 and 545 respectively in 1891-92. The total number of meetings held by the several Boards was 221, as compared with 257 in the previous year; and the average attendance at each meeting was 8·6 as against 8·2. The total income of the several Boards amounted to Rs, 12,05,938 as against Rs. 12,92,169 in the previous year, or a decrease of Rs. 86,231. The balance to the credit of the Boards from the preceding year was Rs. 8,95,382, and the sum available for expenditure was, therefore, Rs. 21,01,320, as against Rs. 20,78,321. The principal items constituting the income of the Local Boards were the Local Fund Cess (which yielded Rs. 7,36,810 against Rs. 7,41,485 in the preceding year), road and ferry tolls and contributions from provincial revenue for schools and other works. The incidence of taxation per head of population was Re. 0-3-0 and that of income (excluding balance) was Re. 0-4-11 as against Re. 0-3-0 and Re. 0-5-3, respectively, in 1891-92. The total expenditure amounted to Rs. 12,46,482 as compared with Rs. 11,85,318 in 1891-92. The chief items of expenditure were education Rs. 3,76,487, civil works Rs. 7,30,521, and medical institutions Rs. 46,055. Of the total amount shown under the head "Civil Works" Rs. 3,67,373 were spent on works executed by Civil agency and Rs. 3,63,148 on works executed by the agency of the Public Works Department as compared with Rs. 3,07,789 and Rs. 3,84,766, respectively, in the preceding year. Rs. 3,87,060 as against Rs. 4,17,182 were expended on the construction and maintenance of roads. The expenditure on "water-supply" amounted to Rs. 2,02,101, as against Rs. 1,57,640, in 1891-92, 47 new tanks and 214 wells having been constructed during the year, while 339 existing sources of water-supply were repaired and generally improved. Rs. 81 were ex-

pended on removing prickly-pear and rank vegetation from 7 villages in the Kaira District and Rs. 100 were spent in the employment of a scavenger to keep clean the town of Sháhápur in the Thána District. The year closed with a balance of Rs. 8,54,838 or a decrease of Rs. 38,165 from the balance at the end of 1891-92.

Central Division.

The number of Local Boards in the Central Division was the same as in the preceding year. The number of members serving on them nominally increased by two, owing to an omission in the preceding year. The average attendance of official and non-official members was the same as in 1891-92. The total income during the year, exclusive of the opening balance, was Rs. 13,77,039, against Rs. 14,32,382 in the previous year. The largest items of income appeared under "Local Rate," "Police," "Civil Works," and "Contributions." The incidence of taxation per head of population was 2 annas, against 1 anna and 8 pies in the preceding year. The expenditure during the year under review, compared with that of the past year, showed a net increase of Rs. 40,940, the figures being for this year Rs. 13,58,305 and for the previous year Rs. 13,17,365. The greater portion of the expenditure was absorbed by "Education" and "Civil Works" as before. The opening and closing balances of the year as finally corrected from the accounts amounted to Rs. 8,91,743 and Rs. 9,10,478, respectively, against Rs. 7,74,156 and Rs. 8,89,173 in the previous year. The amount spent on the improvement of water-supply during the year, *viz.* Rs. 1,20,000, was less by Rs. 1,259 than that spent in preceding year, *viz.* Rs. 1,21,259. The expenditure on other objects connected with village sanitation was trifling.

Southern Division.

There were in the Southern Division 56 Local Boards, of which 6 were District Boards and 50 Táluka Boards, having in all 900 members. With the exception of 6 Táluka Local Boards, which contain no elected members owing to the backward condition of the local population, the Boards were composed partly of nominated and partly of elected members. All the District Boards complied with the provisions of the rule regarding the holding of half-yearly meetings. The Táluka Boards held a fair number of meetings except that of Dhárwár which held only one during the year. The number of meetings held by the several Boards showed an aggregate decrease of 77 as compared with the number held in 1891-92. In Belgaum the average attendance at District Local Board meetings was the highest, *viz.* 73 per cent. of the number of members, while in Ratnágiri it was lowest, being only 35 per cent. The average attendance at Táluka Local Board meetings was fairly good except in the case of the Táluka Local Board of Chikodi, where it was slightly below one-third. On the whole the average attendance at meetings was satisfactory. The year opened with a balance of Rs. 7,66,302, and the income of the Boards during the year amounted to Rs. 10,69,143 against Rs. 10,88,797 in the preceding year. Of the total income 57·4 per cent. was derived from the one-anna Local Fund cess. The incidence of the one-anna cess per head of population was 2 annas and that of the total income 3 annas 8 pies. The year's expenditure amounted to Rs. 12,17,427 against Rs. 11,62,407 in 1891-92. A sum of Rs. 4,24,811 was spent on "Education," Rs. 6,45,936 on "Civil Works" and Rs. 41,370 on "Medical Objects." The outlay on "Water-supply" amounted to Rs.1,17,502. Eight new tanks and 145 new wells were among the works constructed. The year closed with a balance of Rs. 6,18,018. The administration of the Local Boards was on the whole satisfactory.

Sind.

The constitution of the Boards remained unchanged during the year under report, there being 5 District Boards and 46 Táluka Local Boards in the province. The Collectors and Deputy Commissioners of the District presided over the former and Assistant Collectors over the latter. The total number of members of which the several Boards were constituted was 652 against 650 in the previous year. Of the former 362 were nominated, 282 elected, and 8 *ex-officio*, 126 were officials and the remainder private gentlemen. During the year 362 meetings were held by the several Boards as compared with 397 in the previous year, the average attendance at each meeting being 6·15 against 6·82 (and not 7·53 as shown in the last report) in the preceding year. The year opened with a balance of Rs. 4,49,707, while the receipts amounted to Rs. 7,73,927 as contrasted with Rs. 8,05,350 in the preceding year. The total amount available for expenditure was thus Rs. 12,23,634. The principal sources from which the income was derived were the Local Cess, Police, Education, Civil Works, Miscellaneous and Contributions. The receipts under the first head named amounted to Rs. 4,45,757 as compared with Rs. 4,81,587 in the previous year. The incidence of taxation and the incidence of income (excluding balance) per head of population were Re. 0-2-10 and Re. 0-4-11 against Re. 0-3-1 and Re. 0-5-1 in the previous year. The total expenditure amounted to Rs. 8,53,504 against Rs. 8,55,652 in the preceding year. A sum of Rs. 2,59,010-2-10 was spent on education and Rs. 3,78,679 were expended on civil works and chief remaining objects on account of which expenditure was incurred were "Contributions," "Miscellaneous," "Medical" and "Scientific and other Minor Departments," while establishment charges amounted to Rs. 22,743. Of the total amount shown under civil works Rs. 2,96,796 were spent on works executed by Civil agency and Rs. 81,883 on works executed by the Public Works Department as compared with Rs. 2,59,867 and Rs. 59,576 in the preceding year. The expenditure incurred on the improvement of water-supply was Rs. 24,909 against Rs. 16,906 in the previous year. A sum of Rs. 728 was spent on the conservancy of towns and villages, while Rs. 608 were expended in connection with sanitary arrangements at fairs and festivals. The closing balance at the end of the year was Rs. 3,70,133 against Rs. 4,49,707 at the end of the previous year.

Municipal Administration.

BOMBAY MUNICIPALITY.

Important events.

The new offices were occupied from the 14th January 1893, though not quite complete. The new building by-laws were confirmed by Government on 3rd August 1892 and brought into operation; and before the close of the year like confirmation was given to the regulations relating to the Retiring or Pension Fund for municipal officers and servants. Consequent on the projected increase in the City Police, provision was made in the budget to the extent of Rs. 4,00,000 as against Rs. 4,50,000 originally demanded by Government, and eventually the sum was fixed at Rs. 3,63,345, although up to 31st March 1893 the reply had not been received from the Secretary of State for India to the memorial from the Corporation praying for a reduction in the charges. The claim of the Corporation to be allowed to deposit at their discretion surplus moneys instead of being compelled to keep the same in the Bank of Bombay even without interest, referred to in the report for the preceding year was sanctioned by the local legislature. Correspondence with Government was still proceeding at the end of the year, with reference to the question of the existing method of keeping the municipal accounts. The alteration in the terms of the repayment of the Vehár debt and Tánsa Water Works loan and the conversion of the Tulsi Water Works consolidated loan of 4½ per cent. into 4 per cent. was carried out, thereby ensuring an annual saving of Rs. 2,29,200 in the charges for interest and sinking fund. The important question of the disposal of town sweepings outside the limits of the Island had still to be settled, but the lease of a large plot of marshy land at Chimboor, which it was proposed to fill in with sweepings, was secured from Government. No decision was come to relative to the provision of burying grounds for Muhammadans and Beni-Israel, though such land is urgently required.

Revenue and expenditure.

The opening workable balance (including recoverable advances and excluding deposits and minor adjustment items) was Rs. 29,05,655, or Rs. 13,05,655 in excess of the budget estimate. Deducting from the former amount the sum of Rs. 54,47,288 being the unexpended balance of lapsed grants for 1891-92 renewed in 1892-93 and reserving Rs. 2½ lákhs temporarily paid out of surplus cash balance for Victoria Garden improvements as sanctioned by the Corporation, there remained a surplus of Rs. 5 lákhs, which, not having been appropriated during the year now under report, formed part of the opening balance of 1893-94. The total revenue of the year amounted to Rs. 66,65,187, which was better than the estimate by Rs. 7,14,870 and was in excess of the revenue for 1891-92 by Rs. 5,80,483. The excess over the estimate was principally obtained from property taxes, tax on vehicles and animals, town and tobacco duties, licenses, market and miscellaneous receipts, interest and profit on loan and reserve funds investments, &c. The following tables show the main heads of revenue and expenditure as compared with the budget estimates for 1892-93 and the actuals for 1891-92:—

Revenue.

Items.	Actuals for 1891-92.	Estimate for 1892-93.	Actuals for 1892-93.	Actuals for 1892-93 as compared with actuals for 1891-92.	Actuals for 1892-93 as compared with estimates for 1892-93.
				Increase or decrease.	Increase or decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.
Property Taxes—					
General Tax	19,19,345	18,48,758	19,39,339	+19,994	+90,581
Water Tax and Miscellaneous Water Works Revenue	11,81,429	12,61,300	14,07,081	+2,25,652	+1,45,781
Halálkhor Tax, including receipts for special service.	5,55,877	5,53,000	6,22,200	+66,323	+69,200
Wheel Tax and Toll Fees	3,42,973	3,16,312	3,44,906	+1,933	+28,594
Town Duties	8,40,222	9,00,000	9,73,928	+1,33,706	+73,928
Receipts from Government for Liquor Licenses and Tobacco Duty	3,29,901	3,23,750	3,30,453	+552	+6,703
Market Receipts	3,46,105	3,33,500	3,57,035	+10,930	+23,535
Returns from other Property and Miscellaneous ...	5,68,851	4,13,697	6,90,245	+1,21,394	+2,76,548
Total ...	*60,84,703	59,50,317	†66,65,187	+5,80,484	+7,14,870

* Excluding Rs. 87,167-1-10 on account of nominal profit on adjustment of Stock.
† Do. Rs. 7,756-2-6 do do. do.

Expenditure.

Charges debitable to current revenue, exclusive of advances and other adjustment items.	Actuals for 1891-92.	Estimate for 1892-93.	Actuals for 1892-93.	Actuals for 1892-93 compared with the actuals for 1891-92.	Actuals for 1892-93 compared with the estimates for 1892-93.
				Increase or decrease.	Increase or decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.
General Superintendence	1,91,028	1,96,321	1,90,920	—108	—5,401
Assessment and Collection Department	2,41,003	2,60,051	2,52,123	+11,120	—7,928
Fire Brigade	88,671	1,79,387	1,47,694	+59,023	—31,693
Public Gardens	77,224	1,35,009	96,965	+19,741	—38,944
Public Works, Ordinary	14,71,153	16,93,433	15,18,601	+47,448	—1,74,832
Do. New	1,14,564	2,99,812	1,53,911	+39,347	—1,45,901
Public Health Department	12,92 529	14,29,938	13,01,563	+9,034	—1,28,375
Municipal Debt	16,37,405	23,66,358	21,97,233	+5,59,828	—1,69,125
Police	2,58,285	4,00,328	3,63,625	+1,05,340	—36,703
Education...	80,722	91,406	87,565	+6,843	—3,841
Hospitals and Dispensaries	50,284	61,907	49,576	—708	—12,331
Pensions, Gratuities and Compassionate Allowances..	33,890	35,107	29,845	—4,045	—5,262
Miscellaneous	1,33,928	1,56,872	1,55,891	+21,963	—981
Total ...	56,70,686	73,06,829	65,45,512	+8,74,826	—7,61,317
Loan Works	...	...	26,65,681	.....	.....
			92,11,193		

It will be observed that the income from general, water (including miscellaneous water works revenue), and halálkhor taxes was Rs. 3,11,969 more than in the previous year, and Rs. 3,05,532 more than the budget estimates, owing to the large collections of outstandings. The receipts from wheel tax and toll fees exceeded those of the past year by Rs. 1,933 and the budget estimate by Rs. 28,594 owing to a larger than the estimated number of victorias and bullock hackeries and carts having plied for hire. Town duties yielded Rs. 1,33,706 more than in the preceding year, and Rs. 73,928 more than the budget estimate. The increases were chiefly obtained under sugar, ghee and timber. Tobacco duty collections exceeded those of the past year by Rs. 552 and the estimate by Rs. 6,703. The realizations from market receipts were Rs. 10,930 and Rs. 23,535 in excess of those for 1891-92 and the budget estimate respectively, principally owing to the fee for slaughter of buffaloes having been raised from Rs. 2 to Rs. 10 per head from 1st April 1892. The realizations of Rs. 1,21,394 and of Rs. 2,76,548 in excess of receipts in 1891-92 and the estimate for 1892-93 respectively from returns from other property and miscellaneous were obtained principally from interest and profit on the Municipal Loan and Surplus Cash Investments. Remarks on revenue

The actuals during the past year were in all cases less than the estimates, leaving an unexpended balance of Rs. 7,61,317 at the end of the year. Of this sum, however, Rs. 3,55,296, representing the amount of unpaid liabilities and the cost of works under construction, &c., were required during the current year. Thus, the actual net saving on the estimates amounted to Rs. 4,06,021, which was principally effected on the following items:—(1) *Fire Brigade.*—Rs. 31,693 saved on the grants for establishment, feed, repairs, &c., purchase of new engines and brake, and interest and sinking fund on the Fire Brigade Loan. (2) *Engineer's Department.*—Rs. 1,07,625 on establishment, labour and materials grants and on the provision for gas and kerosine lighting, &c. (3) *New works.*—Rs. 37,432. (4) *Health Department.*—Rs. 1,26,855, due to full supervision and inspection and labour staff not being employed on the maximum schedule salaries, and to the water-supply, establishment, &c., grants not being fully expended. (5) *Police.*—Rs. 36,703, owing to Government having fixed Rs. 3,63,345 as the sum to be paid by the Corporation for Police expenses against the round sum of Rs. 4,00,000 entered in the budget and (6) *Debt.*—Rs. 26,665, partly owing to the interest on the last instalment of Rs. 25 lákhs of the Tánsa Loan not being required to be paid for the full year and partly to the raising of the moiety of the 4 per cent. loan of Rs. 22 lákhs intended to be raised in 1892-93 for different works having been deferred. As compared with the previous year's actuals, the expenditure for the year under report was greater under certain items by Rs. 8,79,687 and less under others by And expenditure.

Rs. 4,861. The net excess of expenditure over the previous year's actuals thus amounted to Rs. 8,74,826.

Municipal Loans.

The following statement exhibits the expenditure during the last five years on the principal loan works in progress :—

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Tánsa	24,95,787 13 5	34,43,597 7 1	34,33,284 13 2	20,99,198 8 8	1,85,363 4 6	1,16,63,215 14 8
Other water works	1,13,955 15 8	1,70,378 14 10	5,26,656 4 9	92,471 6 0	46,632 3 10	9,50,095 3 1
Sewerage works	3,08,936 13 11	3,12,052 2 5	4,13,113 12 1	4,39,224 6 6	5,65,444 6 5	20,38,771 9 4
Markets...	2,41,185 2 4	3,14,652 14 0	24,904 14 3	1,74,474 9 6	68,005 4 3	7,23,222 12 4
Roads	4,165 11 3	46,021 6 8	1,66,818 8 1	4,58,742 1 1	10,5b,026 1 9	17,80,775 13 5
Minor and other sanitary, &c., works	28,064 4 3	2,10,535 4 4	8,013 0 7	1,56,434 2 9	7,45,219 6 3	11,48,366 2 2
Total ...	31,92,095 12 10	43,97,238 0 11	45,77,791 4 11	34,20,539 2 4	26,05,681 1 0	1,82,53,445 6 0

The statement given below shows the financial position of the Municipality at the beginning and end of the year respectively with regard to the various loans raised from the public and borrowed from Government :—

	Balance due on 1st April 1892.	Amount raised in 1892-93.	Total.	Amount repaid in 1892-93.	Balance due on 31st March 1893.	Interest paid in 1892-93.	Total of columns 4 and 6.
	1	2	3	4	5	6	7
Loans raised from Government.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Vehár Water Works Debt	26,42,380	.....	26,42,380	70,799	25,71,581	1,04,401	1,75,200
Balance of the Consolidated Loan	45,22,893	.....	45,22,893	1,69,845	43,63,049	3,01,809	3,56,652
Total of Loans raised from Government ...	71,65,273	.....	71,65,273	2,25,643	69,39,630	3,06,209	5,31,852
Loans raised from the Public.							
House-rate and Market Loans of 1867 and 1868 ...	.....	.....	.....	Only Rs.	1,000 remain	unpaid.*	.....
Drainage Loan of 1878	23,07,500	.....	23,07,500	† 48,000	22,59,500	1,17,088	1,65,088
The Sanitary Works Loan of 1885-86 (44 lákhs) ..	38,99,000	.....	38,99,000	‡	38,99,000	2,00,387	2,00,387
The Sanitary Works Loan of 1888 (7 lákhs) ...	7,00,000	.....	7,00,000	‡	7,00,000	33,800	33,800
The Tánsa Water Works Loan (147 lákhs)	1,47,00,000	.....	1,47,00,000	‡	1,47,00,000	7,10,556	7,10,556
The Drainage and Water Works Loan of 1888 (12 lákhs)	12,00,000	.....	12,00,000	‡	12,00,000	63,275	63,275
The Miscellaneous Works Loan of 1888 and 1889 (Drainage and Water Works, Markets and Roads) of Rs. 10,08,500	10,08,500	.....	10,08,500	‡	10,08,500	50,425	50,425
Agripada House Sullage Water Connections Loan of Rs. 2,48,000 of 1889 and 1890	2,48,000	.....	2,48,000	‡	2,48,000	12,400	12,400
35 lákhs Various Sanitary Works Loan of 1890 and 1891	35,00,000	.....	35,00,000	‡	35,00,000	1,89,495	1,89,495
Municipal Building Loan of 1891 (8 lákhs) ...	8,00,000	.....	8,00,000	‡	8,00,000	40,000	40,000
Loan of 4½ lákhs for Fire Brigade Quarters and Stations...	.....	2,50,000	2,50,000	§	2,50,000	247	247
Total of Loans raised from the Public ...	2,83,63,000	2,50,000	2,86,13,000	48,000	2,85,65,000	14,17,673	14,65,673
Grand Total ...	3,55,28,273	2,50,000	3,57,78,273	a 2,73,643	b 55,04,630	c 17,23,882	19,97,525

* The balance of these loans on 1st April 1892 was Rs. 1,500, out of which Rs. 500 have been repaid during 1892-93, leaving an unpaid balance of Rs. 1,000 at the close of the year, owing to the bond-holder having lost the debentures. The latter sum has been deposited with the Bank of Bombay and will be repaid when the party applies for payment on the expiration of 6 years from the date of the repayment of the loan. The arrears interest on the above bonds adjusted during 1892-93 amounted to Rs. 80-11-5.

† The amount of bonds stipulated to be paid off on 1st January 1893 on account of this loan was Rs. 42,000, which, together with seventeen unpaid bonds for Rs. 8,500 for the preceding years, aggregated Rs. 50,500, out of which Rs. 48,000 were repaid during 1892-93, leaving an unpaid balance of Rs. 2,500 owing to the bond-holders not having surrendered the debentures for repayment before the close of 1892-93. Two bonds for Rs. 500 each have since been paid off, leaving only three unpaid bonds for Rs. 1,500, which will be repaid when the holders apply for the payment thereof.

‡ As under the terms of these loans, the bonds could not be repaid to the holders before the dates stipulated in the debentures, the Sinking Fund has been invested as under :—

	Amount of Sinking Fund invested up to 1891-92.	Balance of Debt Instalments for 1892-93.	Interest accumulations for 1892-93.	Total.
	Rs.	Rs.	Rs.	Rs.
44 Lákhs Sanitary Works Loans	2,90,666	62,050	13,906	3,66,622
7 do. do.	25,747	6,000	1,196	32,943
12 do. Drainage and Water Works Loan ...	46,179	11,000	2,192	59,371
Tánsa Water Works Loan of 147 lákhs ...	.....	42,000	.....	42,000
Loan of Rs. 10,08,500 for Miscellaneous Works.	27,515	8,600	1,366	37,481
Agripada House Sullage Water Connections Loan of Rs. 2,48,000	4,937	2,400	219	7,556
35 Lákhs Various Sanitary Works Loan ...	29,704	29,000	1,801	60,505
Municipal Building Loan of 8 lákhs ...	.....	7,000	77	7,077
Total ...	4,24,748	1,68,050	20,757	6,13,556
5 per cent. Municipal Debentures at par deposited with the Bank of Bombay... ...	4,24,500	+ 1,89,000		= 6,13,500
Cash do. do. ...	248	—198		= 55

§ The Sinking Fund Instalment on account of this loan will be due on 1st January 1894 as per conditions of the loan.

a This amount, together with Rs. 1,88,807 set apart as Sinking Fund during 1892-93, brings up the total disbursements for that year on account of repayment of debt to Rs. 4,62,450.

b If to this amount the sum of Rs. 1,000 on account of the unpaid balance of Rs. 1,000 of the Market Loan and the sum of Rs. 4,23,117 received on account of net premia from 1888-89 to 1890-91, minus Rs. 12,849 paid in 1891-92 on account of stamp, printing, &c., charges on the last instalment of the Tánsa Loan and the balance of the 35 lákhs various Sanitary Works Loan raised during the latter year were added, the total balance would amount to Rs. 3,59,15,898.

c If to this amount the sum of Rs. 80-11-5, adjusted on 30th March 1893 on account of interest on the local loans (*vide* note *) were added, the total payments on account of interest would amount to Rs. 17,23,962-5-7.

Registration and valuation of property.

The number of properties on the assessment book at the close of 1892-93 was 51,344 against 51,135 in the previous year, or an increase of 209. The details are contrasted in the following table :—

Years.	Classification of properties according to description.				Classification of properties according to liability to pay General Tax.			
	Buildings.	Salt-pans.	Vacant lands, including tanks, &c.	Total.	Number assessed to General Tax.	Number exempt or compounded for on special terms.	Small plots of unproductive land for which no bills are issued.	Total.
1891-92	33,445	188	17,502	51,135	38,023	5,419	7,693	51,135
1892-93	33,557	172	17,615	51,344	39,353	4,300	7,691	51,344

In the year under report, 428 buildings were demolished, while 540 new buildings were erected and 199 existing properties were enlarged. The recorded gross value of these properties for the year under report was Rs. 2,64,03,982 as against Rs. 2,85,80,023 in the previous year a decrease of Rs. 21,76,041, due to the revision of the valuation of Government properties, and properties owned by the Trustees of the Port of Bombay, but for which there would have been an increase of Rs. 5,86,611 in the valuation of properties as compared with the preceding year. The following table shows the valuation of Government and Port Trust properties before and after the revision :—

	Original Valuation.	Revised Valuation.	Difference.	Remarks.
	Rs.	Rs.	Rs.	
Government Properties	31,87,955	16,91,106	14,96,849	
Port Trust Properties	38,75,708	26,09,905	12,65,803	
			27,62,652	

There was an increase in the valuation of private properties of Rs. 5,86,611 as under :—

	Rs.
Erection of new buildings	2,62,974
Enlargements	1,70,012
Rise in rents and correction of under-assessment	1,53,625
Total ...	5,86,611

Property taxes.

The demands for the year on account of property taxes are shown, together with those of the previous year, in the following statement :—

	1891-92.	1892-93.
	Rs.	Rs.
General Tax	18,64,249	18,92,368
Water Tax	11,99,219	12,53,048
Halálkhor Cess	5,66,623	5,91,563

The total demand on account of property taxes for 1892-93 amounted to Rs. 37,36,979, to which must be added Rs. 68,498 demands on account of previous years, making a total demand of Rs. 38,05,477.

Collections.

The following table gives details of the amounts which had to be collected during the year 1892-93 :—

Taxes.	To be collected.				Collected.			Uncollected.
	Opening balance outstanding.	Total of Bills issued during 1892-93.	Amount payable by Government and Port Trust without Bills.	Total.	On account of former years.	On account of 1892-93.	Total.	
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
General Tax	1,87,857	16,22,003	2,74,171	20,84,031	1,34,624	18,26,227	19,60,851	1,23,180
Water Tax	1,90,779	12,63,706	.....	14,54,485	1,68,188	12,29,803	13,97,991	56,494
Halálkhor Tax	75,092	6,08,111	.....	6,83,203	58,101	5,71,467	6,29,568	53,635
Total ...	4,53,728	34,93,820	2,74,171	42,21,719	3,00,913	36,27,497	39,88,410	2,33,309

Taxes.	Deduct. On account of former years. Bills cancelled as erroneous, amended bills being issued in lieu of the same.	Amount written off on account of Irrecoverable Bills re-called.	Reduction in the amount of Port Trust contribution.	Total.	On account of 1892-93.	Total.	Balance outstanding at the end of 1892-93. On account of former years.	On account of 1892-93.	Total.
1	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
General Tax..	40,744	485	23,680	64,909	...	64,909	29,619	28,655	58,271
Water Tax	22,352	659	.....	22,911	...	22,911	10,338	23,246	33,584
Halálkhor Tax	20,427	343	.....	20,770	...	20,770	12,703	20,096	32,864
Total ...	83,423	1,487	23,680	1,08,590	...	1,08,590	52,722	71,997	1,24,719

Tax on vehicles and animals.

The opening outstanding balance on account of the tax on vehicles and animals was Rs. 17,000. The demand for the year ending 31st December 1892 was Rs. 1,64,194 as against Rs. 1,68,949 for the previous year, and bills to the extent of Rs. 759 were issued on account of tax due for former years, so that the total demand was Rs. 1,82,053. The amount actually collected during the year was Rs. 1,66,565 against a collection of Rs. 1,69,411 as in the previous year.

Miscellaneous revenue and refunds.

The receipts from miscellaneous revenue in the year under report amounted to Rs. 15,622 as against Rs. 13,517 in the previous year, while the total amount of refunds for which certificates were granted on account of vacancies and over-collections under all heads amounted to Rs. 35,928.

Revenue audit.

The books and balances of the whole of the ward clerks in the seven ward offices of the City were duly examined at the end of each quarter, and the bills were checked in detail as compared with the head office accounts. The assessment books in the head office were also examined with a view to ascertain that no property liable to pay taxes had escaped being charged. The books relating to the collection of taxes on vehicles and animals were also examined and the entries checked. Eight thousand eight hundred and thirty-three claims for ⅛ drawback under section 158 (2) were received and scrutinized. Six thousand three hundred and fifty-two entries in Forms 11, 11-A and 11-B on account of increase or decrease of valuations were checked and traced through all the assessment and collection accounts. Six hundred and forty-eight complaints against valuations were heard and decisions on 203 cases of complaints against amendments under section 167 were scrutinized. The revenue receipts or vouchers of the following departments were also examined and checked :—

	No. of Receipts.	Amount.
		Rs.
Markets and Slaughter-houses	13,449	3,74,147
Health Department	19,455	76,404
Engineer's do.	8,956	43,814
Victoria Gardens	3,377	5,343

In the Licensing Department each of the 4,720 licenses granted was scrutinized with respect to the amount of the fee leviable. The number of claims for refund sanctioned after examination on account of vacancy or over-collection was 1,106, amounting to Rs. 32,818.

Town duties.

The total collections for the year amounted to Rs. 19,46,737 as against Rs. 20,35,538 in the previous year, or a decrease of Rs. 88,801. There was a decrease of Rs. 2,50,631 in the item of grain of all sorts, while sugar showed an increase of Rs. 1,17,044. The amount of refunds sanctioned showed a decrease of Rs. 2,85,691 compared with the amount sanctioned last year. The net revenue derived from the duties during the year was Rs. 9,66,430 against Rs. 7,69,539 in the previous year, or an increase of Rs. 1,96,891.

Public Works Drainage.

The four sets of Worthington triple expansion engines, sewage pumps and Babcock boilers, for which a contract had been entered into with Messrs. Simpson & Co. of London, were all delivered in Bombay by the 8th December 1892. The whole of this machinery was examined and passed in England by Major Tulloch, R.E., of the Local Government Board, on behalf of the Municipality. The original intention of utilizing the existing engine and boiler-house for the new engines was found to be impracticable, and an additional grant of Rs. 40,000 was sanctioned for the construction of a new engine and boiler-house. The contract for this work was given to Messrs. Sitaram and Bibra, and on the 31st May 1893 the work was practically finished. To the same contractors was given the work of the brickwork bedding, above 78·50 T. H. D., for the new engines and pumps. The contract for the erection of the machinery was given to Mr. C. Briggs, and the time was five months from the 6th March 1893. The work was in progress at the end of the year. The old engines and pumps were kept going with such repairs as were, from time to time, indispensable. Owing to the large accumulations of silt in the pumps, there were two or three breakdowns, necessitating temporary stoppages. As reported last year, the work of constructing house-connections was being proceeded with departmentally, and was being pushed on vigorously, when the Corporation appointed a committee to inquire into the general question of the suitability

of the existing system of connections and the possibility of improvements therein and desired that, until the report of this Committee was submitted, further work should be stopped. It was stopped accordingly. The ventilation of the Queen's Road sewer was improved by the erection of two masonry ventshafts, and eight large manholes have been constructed on various points of the sewer to allow of greater facilities in cleaning it. Various improvements were made to other drains. Several additional latrines and urinals were erected, while several others were in course of erection. The night-soil depôt at DeLisle Road was completed and handed over to the Health Department. The several drainage sluices were worked satisfactorily and the work in miscellaneous drainage of repairing, altering, constructing, cleaning, and flushing sewers and drains was well carried out.

Water Works: Tánsa.

The rainfall was 114·18 inches. The lake overflowed on the 11th July 1892 after 27·64 inches of rain had fallen. The lowest level before the monsoon of 1892 was 399·13 T.H.D. on the 16th June 1892. The lip of the lowest outlet was at 380 T.H.D. The overflow level is at 405 T.H.D., and on the 31st March 1893 the level was at 398·91 T.H.D. The average daily quantity drawn off during the year was 20¼ millions of gallons. The dam continued in a completely satisfactory condition, and no damage was caused by the overflow which, on the 2nd September 1892, had a depth of 1·06 feet. The total quantity which passed over to waste was calculated to be 30,000 millions of gallons. The duct from Tánsa to Ghátkopar was taken over from the contractors on 1st February 1893. No accident occurred to it. The 48″ main failed on eight occasions at different places between Ghátkopar and Chinchpoogli and caused much inconvenience. The Tánsa Works did not give nearly so much trouble and anxiety as might have been expected from the first year's working of such a large undertaking.

Vehár.

The rainfall was 129·38 inches, the heaviest on record since 1861. The average for the 32 years 1861 to 1892, both included, was 83·90 inches. The lake overflowed on the 27th August 1892, and the overflow ceased on the 8th October. The lowest water-level was 249·5 T.H.D. on the 7th June 1892. The storage on the 31st October 1892 was 11,155 millions of gallons.

Tulsi.

The rainfall was 144·15 inches. The lowest water-level was 434·45 T.H.D. on the 7th July 1892. The lake overflowed on the 17th August and continued to do so until the 5th October. The storage on the 31st October 1892 was 2,173 millions of gallons. The loss during the dry season—from 1st November 1892 to 31st March 1893—was 928 millions of gallons. The quantity of water which passed over the waste weir into the Vehár Valley was estimated at about 2,000 millions of gallons. Boundary stones 300 feet apart were fixed on the pipe line from Tulsi Lake to Mahálakshmi. The pipe line embankment between Máhim and Bándra was repaired, and the repairs to the embankment between Haines Road and Máhim were in progress.

Paval.

The rainfall was 122·27 inches, and the lake overflowed on the 27th July 1892 and continued to do so until the 19th October. On account of the completion of the Tánsa Works, the supply from this lake was not required. The decision of the District Judge of Thána regarding the value of the land acquired for the works, was upheld on appeal to the High Court.

Bhandarwáda Reservoir.

The repairs were continued during the year, the work done being the covering of the floor of the distributing basin with Indian patent stone 1″ thick, and the plastering of the piers up to a height of 5′ 6″. The result was that for depths of 13 feet and under the basin was in good condition. The distributing basin being under repairs, the filters could not be used, and Vehár water was supplied unfiltered throughout the year. Repairs to a portion of the embankment of the 32″ main between Sion and Kurla were completed on the 25th June 1892.

Distribution and maintenance.

The total length of new mains laid was 2,971 feet. The number of free supplies, dipping wells, drinking fountains, &c., was 174. The work of closing dipping wells and substituting taps was being proceeded with. The Dharsi Nanji Drinking Fountain in Argyle Road and also a new cattle-trough in the same road were taken over by the Municipality. The number of notices issued to owners on account of faulty taps and service pipes was 3,906, against 3,192 in the previous year. Sanction was accorded to sever the connections of 1,025 service pipes, but in only 199 cases were the connections severed. There were in all 312 bursts of pipes, of which 174 were of 3″ and 92 of 4″ pipes. The 32″ Vehár main failed between Dádar and Mátunga Stations of the G. I. P. Railway on the 9th September 1892, but it was repaired by the 12th idem. The pipe was corroded from the outside to three-fourths of its thickness, the cause of corrosion being its contact with salt earth. Six hundred and forty-six new connections were made and 273 services were disconnected, the net increase being 373, thus bringing the total number of connections to 18,486. The meters in use at the end of the year numbered 1,426, or an increase of 107 over the number of the preceding year.

Buildings.

Nine hundred and ninety-one applications for permission to build or rebuild houses were received, of which 873 were passed and the remaining 118 were disapproved on sanitary and other grounds. Four thousand eight hundred and fifty-eight notices regarding removal of inflammable materials, building contrary to municipal requirements, making projections over streets, &c., were served on house-owners. The summonses issued for different offences committed under the Municipal Act were 233. In 177 of these cases the parties complied with the requirements before service or return of the summons, and con-

victions were obtained in the remaining 56 cases. In 45 of the conviction cases the parties were warned and discharged, and fines, amounting to Rs. 87-8-0, were inflicted in the remaining 11 cases. Seventy cases occurred of buildings or parts of buildings falling, of which 65 were of a trivial nature. In the 5 serious cases 17 persons were injured and 1 was killed. Street improvements or set-backs to the extent of 6,467·80 square yards were effected at a cost of Rs. 1,36,148. Municipal buildings and works completed or under construction during the year were as follows :—

Completed.	*Under Construction.*
Chawl for the Staff at Love Grove Pumping Station.	Filling in municipal ground and building a retaining wall in front of Mr. Jaikisondass Gungadas' house at Wálkeshwar.
Covering with corrugated iron roofing a portion of the passage between Bori Bandar Stables and the Workshops for sheltering hearses and vans.	Extension of the Mutton Market, &c., at the Arthur Crawford Market.
Bungalow and out-houses for Superintendent, Victoria Gardens.	New Market at Foras Road.
Refreshment room at Victoria Gardens.	Fire Brigade Stations at—
Mangalore tiled roof over the Small-pox Hospital at Arthur Road.	Fort.
Halálkhor Chawls, Khursetji Suklaji Street.	Bhuleshvar.
	Pedder Market, Mazgaon.
	DeLisle Road.
	Dádar.
	Máhim.

The new municipal offices, although not quite ready, were occupied on the 14th January 1893, the first meeting of the Corporation in the new Municipal Hall taking place on the 16th idem. The building bye-laws were confirmed by Government on the 3rd August 1892, and they are now in operation.

Roads.

The area of roadway repaired was 7,049,706 square feet at an average cost of 7·5 pies per square foot. Footpaths were paved with blue stone to the extent of 31,691 square feet and with Indian patent stone to the extent of 60,388 square feet. A considerable area was added to the roads, by the construction of new roads and the widening of others. Land for the construction of roads in the Agripáda, Dádar, Máhim, and Mátunga districts was purchased, and the total expenditure on this account up to the end of the year was Rs. 17,41,565. The construction of a roadway over the Tánsa main from Dádar to Mátunga was let by contract for Rs. 1,18,776, and the work is in progress. The work in the construction of the Connaught and Sussex roads was progressing satisfactorily. Satisfactory progress was also made towards completion of the work of the retaining wall at Wálkeshwar road. Proceedings in connection with acquiring the land for the Falkland road overbridge were being taken at the close of the year.

Lighting.

The gas lighting of the City was fairly satisfactory and the illuminating power of the gas was generally up to the contract standard. The total number of gas lamps at the end of the year was 3,580. The question of introducing Welsback's incandescent gas burners was under consideration, and a trial of the burners was being made. The kerosine oil lighting was carried out departmentally, as in the previous year, and was satisfactory. The total number of lamps was 1,488. A masonry depôt with a concrete roof was constructed for the storage of the kerosine oil.

Fire Brigade and Fires.

During the year four steamers, five manuals, three telescopic fire escapes, a brake, hose, &c., all of the latest design, were obtained to replace plant of the obsolete type. The brigade had received its full complement of appliances and was capable of coping with all fires in a satisfactory manner. The discipline of the brigade was good and generally a marked improvement was noticeable. There were 137 fires during the year, and the damage to property was estimated at Rs. 3,18,599, of which Rs. 87,000 represented the value of hay destroyed.

Public Health.

Detailed information respecting the number of births, deaths and vaccinations is given in Chapter VI and the Appendices. The state of the public health during the year under review was unfavourable. The total number of deaths from all causes amounted to 26,518 equal to a death-rate calculated upon a population of 821,764 (the census of 1891) of 32·26 per 1,000 of population. This was an increase of 2,671 in the number of the previous year. The average number of deaths for the last five years was 23,339, or a death-rate of 27·50. The returns of mortality showed an increase in all the death causes, except in that relating to the nervous system, in which there was a slight decrease. The increase of mortality was principally from small-pox, fevers, phthisis, diseases of the respiratory system and dysentery. The number of deaths according to place of birth was as follows :—

Born in Bombay	12,561
„ elsewhere and unknown	13,957
Total ...	26,518

The sections of highest mortality were Parel 47·59 ; Kámáthipura, 46·15 ; 2nd Nágpáda 44·49 ; Omarkhári, 42·56 ; Khára Taláo, 42·53 ; Mándvi, 41·61 ; Chakla, 40·47 ; Tárdeo, 40·62 ; and 1st Nágpáda, 40·15 ; and the sections of lowest mortality were the Water Division 2·66 ; Fort, South, 8·60 ; Mahálakshmi, 15·34 ; Worli, 17·29 ; Wálkeshwar, 17·32 ; Chaupáti, 19·11 ; Esplanade, 19·37 ; and Sion, 20·56. The death-rate was highest amongst Hindu low-castes, Jains, Muhammadans and Bhátias, being 51·38, 46·42, 41·25, and 39·79 per 1,000 of population respectively. It was lowest amongst Europeans, Eurasians, Pársis and

Jews, being 20·10, 21·24, 23·78, and 26·88 respectively. The average daily number of patients in the leper asylum at Mátunga was 264½ and the cost per head per month Rs. 9-6-0. A handsome donation of Rs. 19,000 was received in the course of the year from a Pársi lady for the construction of a separate hospital ward and for separate latrines and bathing places for the women and children, and the work was in progress. The number of births registered (exclusive of still-born) was 15,485, or 33 less than last year. Of these, 8,045 were males and 7,440 females. Excluding Negro-Africans, the birth-rate was highest amongst Hindu low-castes, Jews, and Pársis, and lowest amongst Bráhmans and Buddhists. On an average 42·72 men and women and 1,046 scavenging and drain carts and 203 night soil and cesspool carts were at work each day. The collection of garbage or cutchra was greater than in the previous year by 21 tons a day. Three hundred and eighteen thousand one hundred and ninety-four tons of garbage, equal to 871 tons a day, were collected and removed and disposed of, against 310,362 tons in 1891. One hundred and forty thousand four hundred and eighty tons of night-soil, equal to 384·8 tons a day, were collected and removed, against 142,564 tons in 1891. 182·8 miles of covered drains were opened and cleaned against 191 in the previous year.

Licenses. The work done in the Licensing Department was very satisfactory. The amount actually collected on account of license fees during the year was Rs. 54,996, or an increase of Rs. 8,613-8-0 over the amount collected in the previous year. During the three years the department has been separated from the Health Department; the actual collection for each year has been as follows:—

	Rs.
1890-91	36,417
1891-92	46,383
1892-93	54,996

The number of prosecutions conducted was 4,165 against 4,663 in the preceding year or a decrease of 498. This decrease was due to the fact that certain classes of cases hitherto prosecuted by this department were held to be cases pertaining to the Health Department, and were accordingly prosecuted by that department.

Street accidents. The number of persons injured and killed by conveyances in the public streets was 600 and 24 respectively. The accidents occurred chiefly in the roads and streets undermentioned:—Abdul Rahimán Street, Masjid Bandar, Kálbádevi, Bhendi Bazár, Girgaon, Hornby and Carnac Roads. The number of street accidents for the last five years is as follows:—

Year.	No. injured.	No. killed.	Total.
1888-89	466	24	490
1889-90	391	30	421
1890-91	507	33	540
1891-92	510	30	540
1892-93	600	24	624

Education. The subject of education is dealt with in Chapter VII of this report. The Municipal contribution towards primary education was Rs. 55,220 as against Rs. 51,300 for the previous year, or an increase of Rs. 3,920. The Government contribution was Rs. 28,000. In addition to the sum of Rs. 55,220 for primary education, the Corporation sanctioned for other educational institutions the grants as under:—

	Rs.
Medical Female Scholarships	... 1,000
School for Deaf-Mutes	... 1,800
Veterinary College	... 2,500
Victoria and Albert Museum	... 11,200
Technical College	... 10,000
Establishment for Joint Schools Committee	... 6,000
	32,500
Total	... 87,720

DISTRICT MUNICIPALITIES.

The work of the District Municipalities during 1892-93 under the heads Vital Statistics and Medical Services and Instruction is described in Chapters VI and VII. Municipal water works are mentioned in Chapter VI (Sanitation).

Sind. The number of municipalities in Sind during the year 1892-93 was 26 as in the previous year. The total number of municipal commissioners was 361, of whom 71 were elected and 290 nominated. The elective system remained in force in six municipalities as in the previous year, *viz.*, Karáchi, Kotri, Hyderábád, Sukkur, Shikárpur and Jacobábád. The triennial term of office of the Kotri Municipality expired during the year under report. Fresh elections were held and nominations made, and the new board commenced their term of office from 1st July

1892. The prescribed quarterly general meetings were regularly held by all municipalities except Mirpur Batoro, Sukkur and Rohri, where only three such meetings were held. The meetings of the managing committees were fairly attended. The total number of official and non-official members who failed to attend two-thirds of the meetings was 138 against 112 in the previous year. Failure on the part of official members was due to their duties which kept them away from municipal towns while non-attendance of the non-official members was due to indisposition or absence on private business. The aggregate income of the municipalities, exclusive of balances, amounted to Rs. 16,57,591-5-9 (including Rs. 5,96,000 on account of a loan raised by the Karáchi Municipality) against Rs. 9,77,334-6-2 in the previous year, thus showing an increase of Rs. 6,80,256-15-7 or Rs. 84,256-15-7 minus the loan of Rs. 5,96,000. The increase of Rs. 6,98,587 in Karáchi was due mainly to the raising of the loan above mentioned and also to larger imports of dutiable goods and larger sales of land. In the three districts of Hyderábád, Shikárpur and Upper Sind Frontier there was a decrease which was due to a falling off in the import trade, especially grain, owing to the occurrence of cholera and high floods in the year under report. In the Hyderábád District the decrease was also due to the opening of the Hyderábád-Umarkot Railway, in consequence of which the articles which were formerly imported into the town of Hyderábád and paid octroi duty are now sent direct to Karáchi. The amount of refunds granted during the year amounted to Rs. 509,095-14-5 against Rs. 5,97,347-0-7, showing a decrease of Rs. 88,251-2-2. The decrease chiefly occurred in Karáchi, Hyderábád, Shikárpur and Jacobábád. The decrease in Karáchi is attributable to the importation of a larger quantity of grain over the previous year, which it was expected would be exported during the current year and refunds given on it. The decrease in other districts was due to the same cause as that assigned for the decrease in the income of those districts, namely, a falling off in the import trade in consequence of which the export trade necessarily diminished. The incidence of municipal taxation was Re. 1-12-3 per head of population against Re. 1-10-1 in the previous year. The aggregate expenditure amounted to Rs. 10,16,312-15-4 against Rs. 9,19,615-0-8 in the preceding year, thus showing an increase of Rs. 96,697-14-8. The increase in Karáchi was due to larger amounts having been spent under the heads water-supply, conservancy, hospital and dispensaries, markets and slaughter-houses, public gardens, &c. In the Hyderábad District the increase was attributable to the entertainment of additional scavenging establishment, to the construction of the Holmsted Hall in Hyderábád and the roofing of the main bázár in Hála, while that in the Shikárpur District was principally due to the entertainment of new scavenging establishment on the introduction of halálkhor cess in the Shikárpur Town and to the water works having been commenced in Sukkur. The decrease in Thar and Párkar was due to a large outlay incurred in 1891-92 in renewing the Fort garden well at Umarkot, while that in the Upper Sind Frontier District was chiefly attributable to a smaller amount having had to be paid to the Cantonment Committee on account of two-fifths share of the total collections of octroi and wheel-tax owing to decrease under those heads. The expenditure on public instruction amounted to Rs. 1,51,428-7-10 against Rs. 1,63,986-12-1 in 1891-92, showing a decrease of Rs. 12,558-4-3, which was principally due to the absence of the expenditure incurred in 1891-92 in connection with the Victoria Museum building in Karáchi. The opening balance amounted to Rs. 3,50,180-8-4½, while the closing balance (including the loan of Rs. 5,96,000) was Rs. 9,91,458-14-9½.

Northern Division.

The total number of municipalities in the Northern Division was the same as in the previous year, *viz.* 46. The total number of municipal commissioners was 590 as against 602 in the year 1891-92. The decrease of 12 was due to the reconstitution of the Dhandhuka Municipality in the Ahmedábád District, and to the municipality of Jambusar in the Broach District continuing under suspension. On the other hand, an addition of three nominated commissioners was made to the strength of the Ahmedábád Municipal Board. The only municipalities which failed to hold the requisite number of quarterly meetings were Dhandhuka and Jambusar, but the suspension of the former was not removed till the 26th November 1892, and the latter remained under suspension during the whole year. The Ahmedábád Municipality held 95 general meetings against 78 in the preceding year, while in Broach and Surat 8 and 20 meetings respectively were sufficient for the transaction of all business, against 18 and 34 respectively in the preceding year. The average attendance at Ahmedábád (14·5) was very small compared with that of Surat, probably owing to the great number of meetings held; out of 33 members only 6 managed to attend two-thirds of the total number of meetings held. The attendance in Surat improved considerably and there were indications of improvement in Nadiád, Kapadvanj, Ánand, Ránder, Bulsár, Mándvi, Bándra, Kurla, Bassein, Máhim, Bhiwndi and Kalyán, but in Viramgám, Anklesvar and Thána much inconvenience was caused by members failing to attend regularly. In the two municipalities last named, and in those of Kaira, Mehmadábád, Broach and Ámod, more than half the number of members failed to attend two-thirds of the general meetings. The total income of the several municipalities amounted to Rs. 14,11,625 during the year under report against Rs. 14,81,143 in the preceding year, showing a net decrease of Rs. 69,518. The decrease, however, was more nominal than real, for if items under the head "extraordinary and debt" be omitted, there was a net increase of Rs. 24,500, which was principally due to larger receipts from (1) octroi, (2) tax on houses and land, (3) water-rate, (4) conservancy cess, (5) pounds, (6) conservancy receipts (other than taxes and rates), (7) fees and revenue from educational institutions, (8) fees and revenue from markets and slaughter-houses and (9) Local Fund grants for general and educational purposes. There were also increases of Rs. 8,143 and Rs. 17,582 under "advances" and "deposits." The chief causes of increase under the first head were the introduction of revised rates of octroi in Viramgám, larger imports of sugar, ghee, drugs and copper into Nadiád, and of sugar, ghee, castor-seeds, timber, tobacco and piece-goods into Anklesvar.

The collection of arrears of house-tax in Nadiád, Broach and Kalyán and introduction of revised rates of house-tax in Dhandhuka, which brought in Rs. 8,024 more than in the previous year, caused the increase under the second head. The extension of house-connections in Ahmedábád and the supply of surplus water to the mills and factories in the city swelled the receipts under water-rate. The collection of arrears of conservancy cess in Viramgám and the introduction of the halálkhor service in certain parts of Bándra brought in increased receipts from "conservancy cess." The levy of enhanced rates of fines for impounded cattle in certain municipalities under the amended sections of the Cattle Trespass Act accounts for the increase under "pounds." The increase under the head "conservancy receipts other than taxes and rates" was due to a greater demand for town sweepings, and that under "fees and revenue from educational institutions" to the grant of a donation by a benevolent lady towards the construction of a building for the new Urdu school in Viramgám and to funds having been raised by public subscription for a building for the girls' school in the same town. The "fees and revenue from markets and slaughter-houses" increased owing to the collection of arrears and the levy of revised rates in Kurla. The increase in "Local Fund grants for general and educational purposes" was due principally to the collection of arrears from the Local Boards in Surat and to the adjustment of Local Fund contribution towards the cost of a school-building in Bhiwndi. On the other hand, there was a considerable diminution in the receipts under (1) tolls, (2) pilgrim-tax, (3) tax for the removal of sullage water, (4) sale-proceeds of lands and produce of lands, &c., (5) interest of investments, (6) grants for educational purposes from Government, (7) grants for general purposes from other sources, (8) sale-proceeds from Government securities and (9) loans. The decrease in the receipts from tolls was principally due to extensive repairs having been effected to the Hope Bridge, and to the toll farms in Thána and Bándra having fetched smaller sums. The decrease in pilgrim-tax was due to a smaller attendance of pilgrims at the Dákor Fair. The decrease in the "tax for the removal of sullage water" was nominal, as large arrears were collected in the previous year. Similarly there was a nominal decrease under the head "sale-proceeds of lands and produce of lands, &c.," due to the adjustment of city survey accounts in Broach and to the sale of police lines in Surat having been effected in the previous year. In Bulsár there was an abnormal sale of land in the preceding year. The Ahmedábád Municipality having sold off some of the Government Promissory Notes held by them in the previous year, less interest was realized during the year. The decrease under "grants for educational purposes from Government" was made up of small items in several municipalities. The decrease under "grants for general purposes from other sources" was due to the Dholera Municipality having drawn only Rs. 350 from the grant of Rs. 2,000 made for the Dharam Taláo Fund. The decrease under "sale proceeds of Government securities" was due to the sale of Government securities in the previous year by the Ahmedábád Municipality. No loans having been raised during the year there was a decrease under this head. Of the total income, Rs. 9,62,165 were derived from taxation, 45·8 per cent. being from indirect and 54·2 from direct taxation, the latter showing an improvement over the previous year. None of the municipalities in Kaira and Panch Maháls except Nadiád in the former derived their income from indirect taxation. The nine smaller municipalities in Ahmedábád also levied no indirect taxes. In Broach and Surat there were only five municipalities, those of Broach, Anklesvar, Surat, Ránder and Bulsár, that derived their income from indirect taxation. In the Thána District also this mode of taxation was not generally resorted to. The incidence of taxation per head of population during the year was Re. 1-4-11 against Re. 1-4-0 in the previous year, and the incidence of total income was Re. 1-14-8 against Rs. 2-0-2. Refunds of octroi amounted to Rs. 31,219 against Rs. 32,222, showing a decrease of Rs. 1,003, due principally to smaller refunds having been granted by the Thána Municipality where the octroi receipts fell from Rs. 10,060 in the preceding year to Rs. 7,009 during 1892-93. The Ránder and Thána Municipalities granted refunds to the extent of 49 and 33·3 per cent. respectively. In the remaining towns, except Broach and Nadiád, the amounts refunded represented a very small proportion of the gross income. In many of them however refunds are not claimed, as, not being situated on important trade routes, octroi does not operate as a transit duty. Besides the amount stated above, the Surat Municipality refunded Rs. 36,864 against Rs. 35,417 in the preceding year on account of goods in transit passing through the city. The average consumption of the principal items of food per head of population in the municipalities in which octroi was levied showed that the standard fixed by Government was exceeded in several municipalities especially Broach, Anklesvar, Nadiád and Rander. The municipalities of Broach and Anklesvar continued to be the principal offenders.

The total expenditure of the year amounted to Rs. 13,67,556, against Rs. 16,98,008 showing a decrease of Rs. 3,30,452; but omitting the items under "Extraordinary and Debt" the net expenditure amounted to Rs. 11,98,564, showing a decrease of Rs. 2,94,954. The decrease was principally due to larger expenditure having been specially incurred in the previous year on water-works and drainage by the Ahmedábád Municipality, and on roads by the Broach Municipality. Under "Collection of Taxes" there was a large decrease, which occurred chiefly in Nadiád where in the previous year an expert was employed at a cost of Rs. 2,082 to value the houses in the town with a view to their assessment for the house-tax. The Surat Municipality also effected large reductions in the collecting establishment during the year. The decrease under "Contributions for general purposes" was due to the payment by the Ahmedábád Municipality, during the preceding year, of its contribution towards the construction of the Ellis bridge. The decrease under "Investments in securities" and "Payments to sinking funds" was due chiefly to the Ahmedábád Municipality having been unable to make any investments or to add to the sinking fund as in the preceding year. The decrease in the item "Repayment of loans" was due to the Surat Municipality having paid off the loan obtained to meet its contribution towards

the cost of the Hope bridge. On the other hand, there was an increase under "Fire", "Conservancy", "Hospitals and Dispensaries" and "Schools and Colleges", due, under the first head, to the purchase of new hoses and the construction of a new fire engine shed by the Ahmedábad Municipality, and to the Municipalities of Parántij, Modása, Sánand, Godhra and Bándra having purchased new fire engines. The increase under "Conservancy" was due to a larger expenditure having been incurred in Kapadvanj, Umreth, Broach, Surat and Thána in the purchase of carts and dust-bins, construction of and repairs of latrines, entertainment of additional establishments and watering of roads. In Bándra, too, a conservancy cess having been levied, the Municipality made preparations to improve the conservancy arrangements and constructed new latrines. The increase in "Hospitals and Dispensaries" was distributed over several municipalities. The increase under "Schools and Colleges" was principally due to the large expenditure incurred in Bhiwndi, Kelva-Máhim, Viramgám and Dhandhuka. In the first-named town a new school-house was constructed, while in Kelva-Máhim two schools were transferred to the municipality. In Dhandhuka arrears of pay to schoolmasters were disbursed and in Viramgám the pay of teachers was raised and the contribution for their pension was paid up. The work of registering births and deaths within municipal limits was performed ordinarily by the municipal establishment. Special establishments were maintained by a few municipalities only. The police and the village servants in the smaller municipalities also render assistance as far as possible in the collection of these statistics. The remarkable feature of these statistics was that there was almost everywhere a decrease in births, while the death-rate rose, especially in Northern Districts. This was strictly in accordance with the facts. The whole of Northern Gujarát was seriously affected by the damp caused by the heavy rainfall of the previous year, and an epidemic of fever, similar to that which swept through Rájputána, prevailed during the monsoon and the following cold weather. When compared with the two other large cities of Surat and Broach, the mortality in Ahmedábád shows very unfavourably, but it was in the centre of the most unhealthy district and it is probable that the improved water-supply has saved it from even a far higher death-rate. In all municipalities, except some of those recently established in the Ahmedábád district, the bye-laws for the registration of births and deaths had been adopted. The following municipalities had still to repay the loans shown against each; Ahmedábád Rs. 10,56,964, Nadiád Rs. 8,000, Godhra Rs. 8,877, and Surat Rs. 1,70,000. The total amount of outstanding balances to the credit of the several municipalities at the close of the year was Rs. 41,265 against Rs. 59,792. Of this amount Rs. 14,813 were on account of house-tax, Rs. 2,158 on account of wheel-tax, Rs. 16,377 on account of conservancy, halálkhor and privy taxes, and Rs. 7,298 on account of the tax for the removal of sullage water, the remainder being on account of miscellaneous items. There was a large reduction in the outstanding balances in all districts except Surat and the Panch Maháls. Measures were being taken for the recovery of the amounts and in several cases considerable realizations were effected after the close of the year. The opening balances amounted to Rs. 3,96,135 and the closing balances to Rs. 4,40,204.

Central Division. The number of municipalities in the Central Division was 65 against 63 in the preceding year. The municipality of Otur was counted as one of the total number for 1891-92, but owing to its abolition in the course of that year, it is now omitted. Three new municipalities at Kasegaon, Bhilavdi, and Shirála, in the Sátára District, were newly brought on the list in 1892-93. The number of municipal commissioners was 941, against 921 in the preceding year; 426 of them were elected. Elections were held in Faizpur and in the three newly constituted municipalities of Kasegaon, Bhilavdi and Shirála. The meetings of the several municipalities were well attended. The total municipal income, exclusive of balances, amounted to Rs. 14,49,533-0-11, or Rs. 2,36,849-6-0 more than in the previous year. The revenue from indirect taxation fell off by Rs. 16,506; while that from direct and miscellaneous taxation increased by Rs. 2,094 and Rs. 73,844 respectively. The increase was chiefly observable in the tax on animals and vehicles, the pilgrim tax, rents on lands, houses, &c., conservancy receipts, fees and revenue from educational institutions, fees for temporary occupation of lands, extraordinary, and debt. A decrease in receipts from octroi occurred in 18 municipalities. The incidence of indirect taxation fell off from Re. 0-12-1 to Re. 0-11-6. That of direct taxation remained the same in 1891-92, *viz.* Re. 0-10-1. The incidence under "Miscellaneous" rose from Re. 0-6-7 to Re. 0-8-8. The total expenditure during the year amounted to Rs. 13,90,064-0-7, or Rs. 19,694-2-3 more than in the previous year. The chief items of increase were office establishments, &c., water-supply, drainage, conservancy, hospitals, and dispensaries, markets and slaughter houses, roads, and public instruction. The outstanding balances of the several boards decreased considerably during the year. The municipalities of Ahmednagar, Bhusával, Násik, Poona City, Tásgaon, and Sholápur were still in need of more vigorous action in the matter of recovering arrears. The opening balances amounted to Rs. 5,52,235-1-7 and the closing balances to Rs. 6,11,704-1-11. The former differ from the closing balances of the preceding year by Rs. 10,718-10-9, owing to the inclusion of dispensary and school fund balances in the opening balances of some of the municipalities of Khándesh and Poona districts.

Southern Division. The number of municipalities in the Southern Division continued the same as last year, namely 39. The municipalities of Ron and Annigeri in the Dhárwár District were abolished during the year. The total number of members on the municipal boards was 538, of which 242 were elected. As regards attendance at general meetings, Ránebennur, Dápoli and Panvel were the only permanent municipalities where it was less than 50 per cent. of the total number of members. The number of meetings held by the managing committees of Yamkanmardi, Navalgund, Honávar and Ulvi, was insufficient, ranging between 2 and 7. The total municipal income excluding the opening balance amounted to Rs. 5,52,075-7-5 against Rs. 6,11,253-7-10 in 1891-92,

showing a decrease of Rs. 59,178-0-5. The sources of income which exhibited a decrease were tax on professions and trade, water-rate, sale-proceeds of land, other items and loans. The revenue derived from direct taxation amounted to Rs. 1,41,500-1-8, and that from octroi and miscellaneous sources to Rs. 1,78,980-15-8 and Rs. 1,59,538-6-7 respectively. The incidence of taxation per head of population was Re. 0-10-6 against Re. 0-11-3 in 1891-92. The aggregate expenditure amounted to Rs. 5,91,981-10-9 against Rs. 5,98,846-3-10 in the preceding year, thus showing a decrease or Rs. 6,864-9-1. The decrease in expenditure was noticeable under the heads of Conservancy, Markets and slaughter houses, Buildings, other items, and other advances. The opening balances amounted to Rs. 2,33,517-9-4 and the closing balances to Rs. 1,93,611-6-0.

Military.

Detailed statistics of the strength and cost of the Army will be found in Part III of this report. The total strength at the close of the year ending 31st March 1893 was 39,797 combatants, of which 13,611 were British and 26,186 Native troops. At the end of the previous year the strength was 39,367 combatants, of which 12,952 were British and 26,415 Native troops. The total cost was Rs. 2,94,16,365 as against Rs. 2,81,97,477, or an increase of Rs. 12,18,888. This was chiefly due to the addition of one company of Garrison Artillery and one regiment of British Infantry to the strength of the Presidency, increased expenditure on provisions and feeding stuffs due to the high rates of food grains, increased transport charges, larger purchases of warm clothing and various other causes. **Strength of the Army.**

Ahmedábád.	Kirkee.	Poona.
Ahmednagar.	Karáchi.	Purandhar.
Baroda.	Khandála.	Ráipur.
Bhuj.	Mahábaleshvar.	Rájkot.
Bombay.	Mhow.	Sambalpore.
Deesa.	Mount Abu.	Sátára.
Devláli.	Nágpur.	Sirúr.
Hyderábád (Sind).	Neemuch.	Sitábuldi.
Kámpti.	Nasirábád.	Surat.

During the year 1892-93 His Excellency the Commander-in-Chief proceeded on tour and made an inspection of the troops at the marginally noted stations. **Inspections.**

The armament of the forts progressed favourably during the year both at Bombay and Karáchi. **Coast defences.**

Competition practice was carried out for the first time during the year from the 6″ B. L. guns by the Garrison companies. The results were satisfactory. Five other batteries attended a practice camp at Kirkee in the cold season. **Royal Artillery.**

Inspectors of Ordnance Machinery and Civilian Mechanics were appointed during the year to look after the machinery of the B. L. guns at Coast Defence stations. **Establishments.**

All British Infantry battalions serving in the Bombay Presidency were rearmed with the Lee-Metford magazine rifle. **Arms, British Troops.**

The Soldiers' Industrial Exhibition was held in Poona in September 1892, and was opened by His Excellency the Commander-in-Chief, and remained open for eight days. The number of exhibits was slightly less than last year, but that of exhibitors was more. **Exhibition.**

The 26th Regiment Bombay Infantry was mustered out at Neemuch, and reconstituted as a frontier regiment at Quetta for service above the passes in November 1892. **Orginization, Native Troops.**

Gymnastic instruction was carried on systematically at the following stations in the Presidency:—Aden, Ahmednagar, Ahmedábád, Bombay, Deesa, Hyderábád (Sind), Karáchi, Kámpti, Kirkee, Mhow, Nasirábád and Poona. During the year 15 officers, 196 non-commissioned officers and 3,580 men were fully instructed in gymnastics; and 128 officers, 68 non-commissioned officers and 240 men were taught fencing, showing an increase of 8 officers and 42 non-commissioned officers in gymnastics and a decrease of 44 officers, 24 non-commissioned officers and 18 men in fencing and 213 men in gymnastics, as compared with the figures for the preceding year. Seventy-seven British officers serving with Native regiments went through a course of single-stick practice as against 58 in the preceding year. Thirty-seven non-commissioned officers from British corps were put through a special course of six months at the Central Gymnasium, Poona, of whom 30 obtained certificates of qualification as instructors. During the same period 5 non-commissioned officers and 37 men from Native corps were trained in a similar course, all of whom, except 8 men, obtained certificates as instructors. Throughout the Presidency 347 men were taught swimming during the year as against 164 in 1891-92. **Gymnastics.**

During the past year three classes of officers were put through the prescribed course in topography, tactics, fortification and law. The results were generally satisfactory. **Garrison instruction.**

The annual course of musketry for 1892-93 was duly carried out. The results among British troops were satisfactory. The standard of merit attained by Native troops, despite the fact that the introduction of a moving target made the annual course more difficult, was also fair. Two schools of musketry were held at Devláli. Of the 39 British officers, 41 British warrant and non-commissioned officers, 20 Native officers, and 20 Native non-commissioned officers examined, all obtained certificates except 4 British officers, 2 British warrant and non-commissioned officers and one Native officer. **Musketry.**

British Troops.—The average number of men on the books was 1,157, with an average daily attendance of 669 or 57·8 per cent. Of these 1,108 were examined for school certificates, and 897 were successful, giving a percentage of passes of 80·9. This showed that **Schools.**

during the past year 204 more certificates were gained than in 1891. The number of children on the books was 517, with an average daily attendance of 461 or 89·1 per cent. Out of 12,772 non-commissioned officers and men accounted for in the returns received, 4,742 or 37·1 per cent were in possession of certificates. In the preceding year, 38·7 per cent of the total strength held certificates. The slight decrease was due to the fact that certain regiments came to this Command at the end of the year 1892. The percentage of passes was, however, better than in the previous year, and there were more certificates gained.

The half-yearly examinations of the schools of all the corps in the Presidency were carried out by the Inspector, with the exception of those in the Aden and Sind Districts, where only annual examinations were held.

Three men of the Royal Artillery attended the Battery Schoolmaster's course at Kirkee, two of whom passed, and one failed.

With a view to promote the study of the native languages by the rank and file of the British Army, the Government of India sanctioned the division of the present Lower Standard test in Hindustáni into two parts. The rewards were also revised at the same time as follows :—

	Rs.
Lower Standard :—	
Part I	40
Part II	50
Higher Standard	60
Total ...	150

The record of examination in oriental languages passed by non-commissioned officers and men serving with regiments was as follows :—

Persian	Higher standard	1
	Lower standard	3
Hindustáni	Higher standard	3
	Lower standard	9
Urdu, high proficiency		1
Sindhi, higher standard		1
Somáli		1
Telegu, high proficiency		1
Beluchi, ...		1

In addition to the above, one Schoolmaster passed the lower standard test in Persian, and one Schoolmistress passed the lower and higher standard tests in Hindustáni.

Native Troops.—The returns showed that the average number of men on the books during 1892 was 2,515, with a daily attendance of 1,398 or 55 per cent, the percentage of attendance being the same as last year. These figures were exclusive of Cavalry and Beluch regiments, which were not under the school regulations.

The number of school certificates awarded was 890, being 171 less than last year. The total number of men accounted for in the returns was 17,106, and of certificated men 6,407, showing a percentage of 37·4.

The average number of boys attending school was 1,344, with an average daily attendance of 1,086, or 80·8 per cent.

Girls' School.—The average number of girls under instruction was 388. This was 27 more than in 1891.

Military Normal School.—During the year 1892 the three classes in the school comprised 25 men. Two students in class I passed a very satisfactory "final examination" in December, and rejoined their regiments. Those in class II, progressed satisfactorily during the year; and two men of those in class III were remanded to their regiments for incompetency.

Veterinary. The strength of the Veterinary Department of the Bombay Army consisted of 1 administrative officer and 11 executive officers. During the year the Inspecting Veterinary officer inspected the horses, mules, cattle, lines, &c. of the various corps and the transport department in the Presidency, and the Veterinary hospitals at the several sations in the command. The condition of the horses was good. Those at Kámpti appeared to suffer to an inordinate extent from climatic effects, and only to recover from the same when the cold weather was nearly over. Stable economy was generally satisfactory. Of infectious and contagious disease, not a single case was observed among the horses of the Royal Horse or Field Artillery, or British Cavalry; but a very serious outbreak of anthrax occurred among the horses of the 1st Bombay Lancers at Neemuch. The first case was reported on the 21st June 1892, and the last was registered on the 19th March 1893. During that time 36 animals were affected, three of which died; eight were destroyed as incurable, and the remainder recovered.

Military Works. Information regarding military works executed during the year will be found in Chapter IV.

Regimental Institutes. A new soldiers' institute was completed during the year at Khandalla; and repairs and improvements were effected at various other institutes.

Hutting Native Troops. The new lines on the Crater Position, at Aden, erected at a cost of Rs. 1,39,356, were completed and taken over for occupation. Repairs to the native lines were carried out at Poona, [illegible], Nasirábád, Ahmedábád, Sátára and other places.

The troops hitherto stationed in Mekrán (*viz.* section of a Bombay Mountain Battery, 5 companies Native Infantry, and 60 sabres 5th Bombay Cavalry) were withdrawn at the end of April 1893. The 28th Bombay Pioneers were despatched to Manipur in September 1892, on road-making duty on the Nichuguard-Manipur road. The 1st Battalion Leinster Regiment was transferred to the Bombay Command in December 1892, and stationed at Deesa and Ahmedábád. In January 1893, No. 22 Company Eastern Division Royal Artillery was withdrawn from Mhow to Multán. Changes of garrison and commands.

Somáli Coast.—A party consisting of 1 Native officer, 25 non-commissioned officers and sowárs and 30 camels of the Aden Troop, and 2 Native officers and 50 non-commissioned officers and men of the 16th Bombay Native Infantry, under the command of Captain Seymour, proceeded with the Political Agent to the coast. The object of their journey was to give moral support to the Political Agent, and to ensure the safety of the towns of Bulhar and Kabilleh, which were endangered, owing to a disturbance between the Esa and Habr Awal tribes. Troops in aid of Civil power.

A similar force was subsequently sent under the command of the late Captain J. R. C. Domvile to enforce the payment of a fine imposed on one of the Chiefs.

Káthiáwár.—About 80 Sabres of the 3rd Bombay Cavalry and 200 men of the 23rd Bombay Native Infantry were despatched in pursuit of dacoits to various villages of Káthiáwár.

The reliefs of 1892-93 consisted of the moves of 2 Royal Horse Artillery batteries, 2 Field batteries, 2 Heavy Artillery batteries, 4 companies Garrison Artillery, 2 Native Mountain batteries, 3 companies Sappers and Miners, 7 British Infantry regiments, and 6 Native Infantry regiments. Reliefs.

A camp of exercise was held in the vicinity of Poona in January 1893. Every advantage was taken of relief movements, and a large body of troops was assembled for the manœuvres. The troops who attended comprised one battery Royal Horse Artillery, 4 field batteries, 3 Garrison batteries, 1 Bombay mountain battery, 5 companies Sappers and Miners, 2 Native Cavalry regiments, 4 British Infantry regiments, and 5 Native Infantry regiments. Camp of Exercise.

The season of 1892-93 was an exceptionally successful one. Nine voyages to and from Bombay, and three to and from Karáchi were made by the troop-ships. The P. & O. S. S. "Shanghai" and the colonial trooper H.M.S. "Himalaya" were also made use of. The Royal Indian Marine steamer "Clive" conveyed the 3rd Dragoon Guards to Nátal and brought back the 11th Hussars. The Royal Indian Marine steamers "Clive" and "Canning" also conveyed the 5th Dragoon Guards to Suez. Troop-ships and Trooping.

1st Class.	*2nd Class.*
Karáchi.	Hyderábád (Sind).
Poona.	Deesa.
Kámpti.	Ahmedábád.
Mhow.	Kirkee.
Nasirábád.	Ahmednagar.
Aden.	Neemuch.
	Devláli.

Cantonment Hospitals were maintained at the marginally noted places at a cost of Rs. 25,088. The recommendations of the Administrative Medical officer on sanitary points were carried out as far as funds permitted. Cantonment Hospitals and sanitation.

Changes were made during the year in the limits of Ahmedábád, Mount Abu, Sátára and Devláli cantonments. Cantonment limits.

During the year 8 officers and 21 non-commissioned officers of British troops qualified in signalling and received certificates as instructors and assistant instructors respectively. Army Signalling.

During the year 37 non-commissioned officers and men qualified as signallers at the Poona school for training British soldiers in electric-telegraphy. Electric Telegraphy.

The following surveys were carried out by the draftsmen and guides of the Topographical Department:— Surveys.

(i) Country 10 miles round Kámpti.
(ii) Rájkot Cantonment.
(iii) Sátára Military station boundary limits.
(iv) Wazirgarh fort near Purandhar.
(v) Nasirábád Cantonment boundary limits.

Marine.

Bombay Shipping Office.

The following statement contrasts the operations of the Shipping Office during 1892-93 with those of the previous year:— Operations of the Shipping Office.

No.	Items.	1891-92.	1892-93.
	Europeans.		
1	Number of seamen shipped and discharged	3,770	4,220
2	" " left in Hospital	50	25
3	" distressed seamen sent to the United Kingdom	19	48
4	" " " subsisted at Sailors' Home	24	77
5	" seamen left in Jail	3	16
6	Amount of wages of seamen left in Hospital and Jail	Rs. 3,643	Rs. 6,089
7	" received on account of estates of deceased seamen	" 142	" 2,369
8	" of wages deposited by seamen discharged	" 4,511	" 10,425
9	" " remitted to the United Kingdom through the Seamen's Money Order Office	" 1,111	" 2,136
	Natives.		
10	Number of seamen shipped and discharged	59,025	57,956
11	Amount of deposits of seamen left in Hospital and Jail...	Rs. 1,821	Rs. 3,592
12	" received on account of estates of deceased seamen	" 6,808	" 7,304
13	Total receipts	" 59,652	" 58,671
14	" expenditure	" 17,783	" 17,644

Seamen.

The increase of 450 men in the number of European seamen shipped and discharged was chiefly due to the arrival of several extra P. and O. Company's steamers during the year. The total number actually discharged to and shipped from the shore was 322, or a decrease of 38 as compared with the figures for 1891-92.

Owing to the general dulness of trade, which affected freights, there was a decrease of 1,069 men in the number of native seamen shipped and discharged during the year under review.

There was an increase of 207 in the number of deaths among native seamen, due mainly to the wrecks of the "Bokhara," "Deccan" and "Roumania."

The number of distressed European seamen dealt with during the year was 77 or an increase of 38 over the figures for 1891-92. Of these, 37 were from Mauritius. The number of certificates fraudulently altered rose again from 52 in 1891-92 to 63 during the year under report.

Financial results.

The total income of the Shipping Office during the year amounted to Rs. 58,671 as against Rs. 59,652 in the preceding year, and the expenditure to Rs. 17,644 as against Rs. 17,783. The net revenue was thus Rs. 41,027 as against Rs. 41,869 in 1891-92.

ADEN.

Arrivals of vessels at Aden and Perim.

The number of square-rigged vessels which visited the port during the year was 1,463, of which 1,359 were merchant vessels against 1,669 in 1891-92, showing a falling off of 206 vessels. Out of the total number 892 were British. The arrivals at Perim numbered 637 as compared with 956.

Pilgrim ships.

Forty-four pilgrim ships called during the year with 27,674 passengers as against forty-eight with 30,468 in 1891-92.

Shipping office.

During the year 36 European seamen were engaged and 65 discharged. The estate of one seaman, who died, was adjusted; twenty-eight men were sent to the United Kingdom. There were 1,385 native seamen engaged and 1,171 discharged during the year. The estates of nine men were adjusted and 36 men were sent to India.

Fees.

The amount of fees realized and placed to the credit of Government was Rs. 2,796, as against Rs. 2,899 in the previous year.

BOMBAY PORT TRUST.

Accounts.

The revenue and expenditure of the Trust for 1892-93 were as follows:—

	Estimated. Rs.	Actual. Rs.
Expenditure, including interest on debt ...	47,63,569 ...	46,53,110
Revenue	47,84,190 ...	44,97,504
	Surplus ... 20,621	Deficit ... 1,55,606

The deficit will be made good from the Revenue reserve fund which the Trustees have accumulated against any temporary falling off in revenue. The fund now stands at Rs. 15,94,486.

Capital Debt.

The capital debt of the Trust at the beginning of 1892-93 stood at Rs. 4,93,17,685, of which Rs. 3,60,06,009 were due to Government and Rs. 1,33,11,676 to security and debenture holders. Of the sum mentioned as due to Government, Rs. 2,65,70,732 bore interest at 4½ per cent.; Rs. 89,86,226 at 4 per cent., and Rs. 4,49,051 bore no interest. In the course of the year the debt to Government was reduced by Rs. 26,831, made up of the unappropriated balance of the fixed annual revenue surplus and sale-proceeds of old materials. One-half of these payments was applied towards the reduction of the

4½ per cent. *interest bearing* and the other half towards the *non-interest* bearing debt. On the other hand, the Trustees received from Government during the year on account of the Victoria Dock Loan a sum of one lákh of rupees. The most notable event of the year with regard to the capital debt was the raising of a debenture loan of Rs. 61,61,000 at 4 per cent. to repay the balance of the 4½ per cent. loan made by Government for the construction of Prince's Dock. The amount was paid to Government shortly after the close of the year. The transaction did not affect the amount of the debt, which was simply transferred from Government to the public, but it effected a saving in interest payments of Rs. 30,850 per annum. The Trustees' capital debt at the end of the year stood at Rs. 4,93,90,854.

Financial condition.

The income and expenditure of the Trust for the past five years compare as follows :—

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.	Rs.
Income ...	43,07,605	41,97,746	43,00,761	48,10,314	44,97,504
Expenditure.	40,45,434	42,83,282	43,49,650	46,23,962	46,53,110
Surplus ...	2,62,171	Deficit 85,536	Deficit 48,889	Surp. 1,86,352	Def. 1,55,606

Taking the five years together, the receipts exceeded the expenditure by the sum of Rs. 1,58,492.

Vessels entering the port.

The number of vessels that entered the port during the past five years was as follows :—

		1888-89.		1889-90.		1890-91.		1891-92.		1892-93.	
		No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
Square-rigged vessels ..	Steam ...	1,702	1,512,877	1,027	1,523,378	1,732	1,722,584	1,838	1,953,948	1,769	1,831,260
	Sailing ..	54	46,477	32	21,287	30	15,674	31	12,231	46	20,839
Country Craft ..		50,757	1,031,282	56,027	931,132	48,289	839,872	47,931	811,002	46,975	815,211
			2,640,636		2,465,797		2,578,130		2,778,181		2,673,330

The decrease, as compared with the returns of the previous year, was due to the depression of trade.

Import and export.

A comparison of the quantities imported and exported of the more important articles during the past two years shows heavy decreases in piece-goods, coal, grain and kerosine-oil, and small increases in building materials, machinery, sugar, cotton, twist and yarn.

Ground, warehouse and shed rents.

Ground, warehouse and shed-rents, taken together, realized Rs. 10,48,909 or Rs. 89,376 less than in 1891-92, although some progress was made in letting land on long leases, for more than a half of the income from ground rents is derived from the occupation of land and godowns for the temporary storage of goods, and the large deficits in the grain and coal trade seriously affected the receipts from this source. The warehouse in like manner suffered from the diminution of the stock of piece-goods which at 31st March 1893 was a fourth of what it was in 1891.

Dock Accounts.

Seven hundred and seventy vessels entered the dock and 372 were accommodated alongside the harbour walls outside the dock, making a total of 1,142 or 62·9 per cent. of the number that entered the harbour. Taking the wet docks by themselves apart from the other properties of the Trust, the gross revenue for the year amounted to Rs. 21,62,786, against Rs. 23,68,387, and the net revenue fell off from Rs. 10,66,989 to Rs. 9,00,380. The total cost of constructing the Prince's Dock (excluding the value of the land) was Rs. 87,63,311 ; and the expenditure on the Victoria Dock up to 31st March 1893 amounted to Rs. 86,52,643 (excluding the value of the land). The number of vessels docked in the Merewether Dry Dock was 119 against 63 in 1891-92, and the revenue increased from Rs. 80,154 to Rs. 97,825, but the expenses were much larger, so that the net result was less by Rs. 2,288. The revenue under the head of Port Department amounted to Rs. 1,53,860 against an estimate of Rs. 1,61,650, and was less than the revenue of the previous year by Rs. 1,392. There were 8 accidents in the stream to sea-going vessels in charge of pilots ; and in four of them the pilots were held to be at fault. In none was more than slight damage done. Inside the docks there were 9 minor accidents.

Pilotage and transporting fees.

Pilotage and transporting fees realized Rs. 1,47,659 against an estimate of Rs 1,65,000. The result of the year's work with regard to the pilotage account was a surplus of Rs. 1,893, which was added to the Pilot Schooners' Replacement Fund.

Expenditure.

The expenditure upon revenue account was in 1891-92 Rs. 46,23,962 and in 1892-93 Rs. 46,53,110. The estimated expenditure under General Charges was Rs. 1,65,543, and the actual expenditure Rs. 1,69,242. On the bandar properties, including the land estates, the expenditure was Rs. 35,837 less than estimated. The savings were in establishment (Rs. 13,735), in repairs (Rs. 16,074), and in sundries, such as stationery and printing, and various minor works (Rs. 12,914), in all Rs. 42,723. On the other hand, there was an increase of Rs. 3,851 in the payments to the Municipality for water and halálkhor service, and Rs. 5,761 also to the Municipality for the right to place an arcade over the foot-path of the Colába Causeway. The expenditure at the wet docks was estimated at Rs. 12,60,714, and the sums actually expended amounted to Rs. 11,81,020, showing a saving of Rs. 79,694. The expenditure on the Merewether dry dock was Rs. 70,394 against an estimate of Rs. 52,596. The payments under the head of interest were Rs. 21,37,249 or Rs. 17,259 more than in the previous year, but in future years this account will show an annual saving of Rs. 30,850 consequent on the substitution of a 4 per cent. for a 4½ per cent. Loan on Prince's Dock Capital Account. Rs. 28,815 were withdrawn from depreciation funds for execution of repairs to plant. An expenditure of Rs. 23,213 appeared in the Capital

Accounts against the Merewether dry dock, being the cost of carrying out various works required to complete it, such as the erection of boundary walls and other works. The amount expended on constructing the Merewether dry dock was Rs. 11,39,786. The expenditure recorded under the head of "New Works, Ordinary," amounted to Rs. 95,170. The more important works were; the completion of the pavilion at Apollo Bandar for use of passengers, Rs. 17,160; making wharfs and roads on Mázagon Reclamation, Rs. 17,346; laying out roads and wharves on the reclamation made at Tank Bandar with spoil from Merewether dry dock, Rs. 15,809 and purchase of a new road roller, Rs. 7,284.

Total receipts and disbursements.

Total receipts and disbursements during the year 1892-93 are shown in the following statement:—

Receipts.	Government securities.	Port Trust Bonds and Debentures and Municipal Bonds.	Cash.
	Rs.	Rs. a. p.	Rs. a. p.
Opening balance on 1st April 1892	13,03,800	16,45,476 2 9	18,21,834 8 7
Gross Revenue Receipts, General Account, from 1st April 1892 to 31st March 1893	...	.....	43,09,145 6 2
Advance from Government for Victoria Dock Works during 1892-93.	...	.....	1,00,000 0 0
Debenture Loan of 1892	...	.....	62,00,991 4 0
Deposit from Merchants and others, &c., received during the year 1891-92—			
Deposits from Contractors	5,700	4,800 0 0	17,314 4 5
Sale of land, &c.—			
Land sold at Colába, &c	...	.....	2,481 4 9
Provident Funds—			
General Account	...	49,800 0 0	58,264 5 10
Pilotage Account	...	9,800 0 0	11,070 11 11
Depreciation and Replacement Accounts, Dredging Plants, &c. ...	...	1,05,600 0 0	1,51,814 13 5
Amounts credited on account of renewals to Plant	...	.....	1,481 4 11
Sinking Fund of Loan of 1885	...	5,300 0 0	5,000 0 0
Sundry Receipts	...	.....	5,83,161 4 6
Town Duty Collections for Municipality	...	.....	12,68,427 5 9
Gross Receipts, Pilotage Account, from 1st April 1892 to 31st March 1893	...	.....	1,59,543 2 9
Total ...	13,09,500	18,20,276 2 9	1,46,90,529 13 0

Disbursements.			Government securities.	Port Trust Bonds and Debentures and Municipal Bonds.	Cash.
			Rs.	Rs. a. p.	Rs. a. p.
Paid Interest to Government on 1st April 1892			...	.....	13,46,256 9 1
Expenditure on Revenue Account during year 1892-93		Rs. 43,64,751 8 4			
Less... Amount of Interest on debt due to Government payable on 1st April 1893 ...	...Rs. 11,95,345 8 1				
Less... Amount payable to Government on account of the Establishment of the Health Officer of the Port ... „	8,956 3 10	Rs. 12,04,301 11 11	...	.....	31,60,449 12 5
Expenditure on Capital Works			...	.....	2,07,679 3 7
Arrears of Interest paid to Debenture-holders			...	.....	26,832 8 9
Deposits returned			5,000	1,700 0 0	15,677 15 1
Sale of land, &c., Expenses			...	.....	665 13 7
Paid Government in reduction of Capital bearing Interest ...			...	.....	13,415 8 0
Paid Government in reduction of Capital not bearing Interest ...			...	.....	13,415 8 0
Provident Funds :—					
General Accounts, amounts refunded, &c....			...	.....	7,904 3 4
Pilotage Accounts, amounts refunded, &c.			...	.....	2,266 11 10
Amount invested			...	.....	62,760 12 0
Depreciation and Replacement Accounts—					
Amount invested			...	.....	1,13,753 4 0
Amount expended on Renewals			...	.....	45,092 12 0
Sinking Fund of Loan of 1885 amount invested			...	.....	5,604 12 0
Do. do. amount transferred to Miscellaneous and Interest Account			...	.....	347 8 0
Sundry payments			...	.....	8,46,570 12 11
Bank of Bombay Fixed Deposit			...	.....	60,00,000 0 0
Town Duty Municipality Fund			...	.....	12,68,427 5 9
Expenditure on account of Pilotage from 1st April 1892 to 31st March 1893			...	.....	1,59,543 2 9
			5,000	1,700 0 0	1,32,96,663 13 6
Amount of Securities in the Bank of Bombay			74,000	16,73,576 2 9	.....
Amount of Stock Notes in hand...			12,30,500	1,45,000 0 0	.....
Cash Balance in the Banks and in hand			...	.....	13,93,865 15 6
Total ...			13,09,500	18,20,276 2 9	1,46,90,529 13 0

KARÁCHI PORT TRUST.

The estimated and actual income, expenditure and surplus of the Karáchi Port Trust for the year 1892-93 were as follows:— Finance.

	Estimated.	Actual.
	Rs.	Rs.
Income	7,62,320	6,46,573
Expenditure	7,61,631	4,93,429
Surplus	689	1,53,144

These figures compare with those of the previous year as under:—

	Income.	Expenditure.
	Rs.	Rs.
1891-92	9,56,962	5,13,977
1892-93	6,46,573	4,93,429
Difference ...	3,10,389	20,548

The great fall in the income for the year under report was due to diminished exports consequent on a bad harvest. The following statement shows the total receipts and disbursements of the Trust for the year 1892-93:—

Receipts.	Rs. a. p.	Disbursements.	Rs. a. p.
Opening balance on 1st April 1892	9,35,678 10 4	Expenditure under General Revenue Account ...	4,45,444 3 6
Gross Receipts from General Revenue Account ...	5,60,533 6 3	Do. under Port Fund Account ...	47,084 15 11
Gross Receipts from Port Fund Account ...	86,041 0 3	Do. on Works	7,58,742 14 8
Loan from General Public	20,00,000 0 0	Paid to Government in liquidation of Capital debt	38,997 12 2
Provident Fund	10,519 8 3	Paid to Debenture-holders in liquidation of Capital Debt	24,987 8 0
Income Tax	4,559 5 4	Provident Fund...	196 11 7
Deposits from Merchants, &c.	1,88,336 8 2	Income Tax	4,559 5 4
Deposits held in Trust on account of McHinch Memorial Fund (Seamen's rest at Keamari) ...	2,752 1 0	Deposits returned to contractors, &c.... ...	1,87,068 13 11
Interest on Trustees' investment of deposits do. ...	38 8 3	Do. amount expended on repairs to Humby Vernacular School	41 5 4
Unclaimed wages	3,225 8 0	Unclaimed wages, &c.	4,768 10 11
Advance Account	16,804 3 1	Advance Account	18,631 2 8
Stock Account (Port Engineer's)	1,13,624 8 0	Stock Account (Port Engineer's)	1,18,050 0 5
Stores Account (Port Officer's)	15,244 12 7	Stores Account (Port Officer's)	9,993 4 8
Security Investments.		Cost of Trustees' investments of surplus revenue in Government securities as per contra ...	4,84,276 13 9
Investment of Revenue	4,50,000 0 0	Cost of investment of McHinch Memorial Fund.	2,681 4 0
Do. of Loan Funds by transfer from Revenue Security Account	4,12,500 0 0	Cost of Trustees' investments of Loan Funds	4,31,796 14 0
Reserve Fund Security Account	3,00,000 0 0	Government securities sold and transferred from Revenue to other accounts	7,70,000 0 0
Depreciation and Replacement Fund Security Account	25,000 0 0	Transfer of Revenue Security Account to Reserve Fund Security Account at par	3,00,000 0 0
Trustees' investments on account of McHinch Memorial Fund (Seamen's rest at Keamari) ...	2,500 0 0	Transfer of Revenue Security Account to Depreciation and Replacement Fund Security Account at par	25,000 0 0
Amount realized by sale of securities as per contra .	7,91,187 12 0	Balance on 30th March 1893	22,44,817 15 1
Total ...	59,18,539 11 6	Total ...	59,18,539 11 6

The number and tonnage of vessels excluding Government vessels, vessels put back, and fishing boats that entered the port were:— Shipping

	1891-92.		1892-93.	
	No.	Tonnage.	No.	Tonnage.
Steam ships	479	616,957	382	468,191
Sailing vessels	10	3,990	8	3,353
Native craft	4,385	128,842	3,531	109,668½

showing a decrease in number and tonnage under all three heads.

The quantity of material dredged during the year, compared with that of the previous year, was as under:— Works.

	Tons.
1891-92	688,282
1892-93	605,825

—the decrease being mainly attributable to the loss through grounding of the dredger "Dubba". The most important result of the dredging carried out during the year was the widening of the entrance channel from 1,240 to 1,440 feet.

A new tug, the "Richmond Crawford," was obtained for the port in lieu of the old paddle tug "Manora," which was condemned on account of the dangerous condition of her boilers. A loan of 20 lákhs of rupees was raised for the purpose of extending the Erskine wharf by 4 berths of 450 feet each, and for providing an import yard at the head of the harbour. Miscellaneous.

ADEN PORT TRUST.

The receipts and expenditure of the Aden Port Trust during the year under review as compared with those of the previous year, were as under:— Finance

	1891-92.	1892-93.
	Rs.	Rs.
Receipts	1,92,768	1,92,708
Expenditure	2,56,349	2,52,126

The heavy expenses occasioned by the dredging of the harbour were mainly responsible for the excess of expenditure over income and necessitated the drawing largely on the Port Fund balance, which diminished from Rs. 1,40,068 to Rs. 80,650 at the close of the year.

Shipping.

The number of steam vessels, sailing vessels, and country craft that entered the Port of Aden during 1892-93, as compared with the previous year, was:—

		1891-92.	1892-93.
		Nos.	Nos.
Square-rigged vessels.	British and Foreign men-of-war and troopships	95	98
	Merchant vessels	1,572	1,359
	Yachts	2	3
	Sailing vessels	...	3
Native crafts...	... ...	1,367	1,339
		3,036	2,802

showing a decrease of 234 during the year under report.

Dredging.

The number of tons dredged during the year was 468,000, at a cost of Rs. 91,286.

INDUS CONSERVANCY AND SEA PILOT DEPARTMENT.

Indus Conservancy.

The constitution of the Indus Conservancy Department remained unchanged during the year. The Steamer "Aid" was wrecked during the year, about two miles above Sukkur, and became a total loss. The number of boats registered during the year was 3,274 as against 3,812 in the previous year. The decrease of 538 was due to the slackness in the grain trade.

Registration fees.

The receipts from registration fees amounted to Rs. 24,171 against Rs. 27,920 in the previous year. The decrease of Rs. 3,749 was due partly to the depression of trade and partly to evasion of the payment of fees on the part of the boatmen.

Receipts and expenditure.

The total receipts during the year amounted to Rs. 24,539 against Rs. 30,306 during 1891-92, showing a decrease of Rs. 5,767. The expenditure of the department amounted to Rs. 31,286 against Rs. 31,280. Deducting, however, extraordinary expenditure, amounting to Rs. 5,600 on account of gratuities paid during the year, there was a decrease of Rs. 5,594 in the total expenditure. The excess expenditure of Rs. 6,747 was met from the accumulated balances of the Conservancy Department.

Sea-pilotage Department.

The receipts from sea pilotage (which are credited to Government) amounted to Rs. 2,932 against Rs. 5,070 in the previous year. The decrease of Rs. 2,138 was due to the slackness of the export trade in grain. There was also a proportionate decrease in the expenditure, which amounted to Rs. 2,482 against Rs. 4,424 in the preceding year.

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

Agriculture.

Organization and maintenance of village records.

THE present distribution of the Circle Inspectors is as follows:—

Division.	Former number of Bhág-Kárkúns.	Number of Circle Inspectors.			Number of Bhág-Kárkúns now left for Mámlatdárs' Office.
		Bhág-Kárkúns utilised as Circle Inspectors.	Additional hands.	Total number.	
Southern Division, except Kolába ..	136	33	96	129	103
Central Division	204	98	97	195	106
Northern Division (Ahmedábád) ...	15	6	8	14	9

Ahmedábád was equipped with the new staff in July. Of the 8 new appointments, 6 were made from the Survey Department and 2 from passed students of the Agricultural College.

Record Room.

Owing to want of suitable accommodation the records of Ahmedábád still remained in the Survey head-quarters at Surat. The district survey records were suitably housed in all districts of the Southern Division, except at Ratnágiri, where a record room was under construction. In the Central Division, however, temporary accommodation more or less suitable was provided pending the erection of record rooms at the district head-quarters, save that the Násik and Khándesh records were temporarily located in the old Survey offices at Málegaon.

Inspection.

The Divisional Inspectors, besides their regular duties of field inspection and of supervision of the district survey offices, conducted a few crop experiments. The Divisional Inspector in the Southern Division was on special duty for two months to settle a disputed boundary between Portuguese and British territory, and, in the monsoon, went on tour to watch measures for the destruction of rats and to ascertain the extent of their depredations.

Survey Classes.

Survey classes at Ahmedábád and all other district head-quarters except Dhárwár, Bijápur, Belgaum, and Ratnágiri, were held in the monsoon for the training in surveying of Circle Inspectors recruited otherwise than from the Survey Department. Several members of the subordinate revenue staff joined these classes with the permission of the Collector. At the examinations which followed the classes, Circle Inspectors recruited from the Survey Department, who had not passed the examination already, also appeared to prove their acquaintance with the Revenue Manual.

Crop, waste and boundary-mark inspection.

The results of the work done by Circle Inspectors may be tabulated thus:—

District.	Average by each Inspector.						Average area of occupied numbers.		Average area of inspected numbers.	
	Number of days of actual inspection.		Number of villages inspected.		Number of Survey numbers (occupied and waste) inspected per day.					
	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.
1	2	3	4	5	6	7	8	9	10	11
Dhárwár	59	60	44	38	8·7	9·4	11·9	11·1	10·4	8·4
Bijápur	60	54	44	34	8·8	9·2	16·1	16·2	14·6	14·5
Belgaum	65	46	41	29	8·9	9·0	10·6	10·5	9·0	6·3
Kánara	32	74	38	40	6·5	9·6	2·5	2·4	2·3	2·3
Khándesh	80	...	54	...	11·0	...	10·2	...	9·7	...
Násik	82	...	42	...	11·0	...	8·5	...	7·7	...
Ahmednagar	81	...	38	...	10·0	...	13·0	...	10·0	...
Poona	68	...	42	...	8·0	...	11·0	...	7·0	...
Sholápur	71	...	35	...	9·0	...	20·0	...	16·0	...
Sátára	74	...	35	...	8·0	...	9·0	...	5·0	...

The period allotted to this inspection included about 80 working days. In Kánara the inspection period was authoritatively curtailed for the Haliyál boundary mark inspection, and the amount of work done was consequently small. In Bijápur and Belgaum, some improvement

in the number of days of actual inspection is apparent. In the Central Division, the number of working days on which work was done is very satisfactory. In Poona, however, the number was comparatively low. There was an improvement in the number of villages visited in the Southern Division and the daily tale of work as fairly satisfactory. The following statement shows the percentages of inspection done to villages open to inspection :—

District.	Villages inspected, per cent.		Crop Inspection. Occupied lands—percentage inspected.				Waste Inspection. Unoccupied lands—percentage inspected.			
			On Survey Numbers.		On Area.		On Survey Numbers.		On Area.	
	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.
1	2	3	4	5	6	7	8	9	10	11
Dhárwár ...	87	75	7·6	10·0	6·7	9·6	20·4	21·2	18·6	16·8
Bijápur ...	90	69	6·3	7·5	5·8	6·9	22·6	31·6	18·4	32·3
Belgaum ...	98	64	7·1	7·0	6·0	4·2	21·5	24·2	17·0	14·8
Kánara ...	64	65	4·7	14·1	4·3	12·6	7·4	19·3	6·2	10·7
Khándesh ...	84	...	12·3	...	11·6	...	20·2	...	14·8	...
Násik ...	89	...	10·6	...	9·8	...	13·6	...	17·0	...
Ahmednagar ...	95	...	10·4	...	8·1	...	29·3	...	24·6	...
Poona ...	82	...	6·7	...	5·8	...	30·6	...	30·2	...
Sholápur ...	94	...	10·6	...	8·3	...	36·9	...	28·4	...
Sátára ...	94	...	8·2	...	4·2	...	25·3	...	21·1	...

Note.—In columns 4 and after, the percentage is on total area of villages inspected.

The percentage of villages inspected was generally satisfactory, but still left room for improvement. Crop inspection was fair throughout in its extent. Waste inspection was also satisfactory in extent in the Central Division, except in Násik. In the Southern Division, it was both below the standard and below the outturn of last year. In Kánara, however, the curtailment of the inspection period sufficiently explains the low percentage. The object of the waste inspection is in part a maintenance of boundary marks, but chiefly the detection of unauthorized cultivation. In the Central Division, no less than 933 cases of encroachment, presumably in most part of cases unauthorized cultivation of waste were detected of which only 257 cases had been detected by the village officers. In the Southern Division, it was clear that encroachments had been checked by the work done by the Inspectors in previous years. Only 193 cases were brought to light, but of these very few (only 29) had been reported by the village officers. The inspection of boundary-marks was carried out in villages of ten districts in the Central and Southern Divisions with a view to test the quality of the boundary-mark inspection made every year by village officers. The work was found to have been very inefficiently done on the whole. The improvement noted in the previous year in village crop registration in Dhárwár and Bijápur disappeared during the year under review. The superior check exercised by District Inspectors is exhibited in the following statement :—

District.	Number of Circles.		Number of villages in which test taken.	Crop Inspection.		Waste Inspection.		Boundary-mark Inspection.	
	Total.	Visited.		Percentage on Circle Inspector's work.	Quality of work found.	Percentage on Circle Inspector's work.	Quality of work found.	Percentage on Circle Inspector's work.	Quality of work found.
1	2	3	4	5	6	7	8	9	10
Dhárwar ...	28	27	34	1·60	75	2·40	94	1·50	97
Bijápur ...	24	20	44	2·20	78	2·70	97	0·20	96
Belgaum ...	24	22	27	0·80	62	0·50	42	0·60	93
Kánara ...	23	22	42	2·50	83	1·30	100	0·13	75
Khándesh...	48	34	150	4·50	91	3·07	100	4·30	93
Násik ...	35	32	60	1·50	70	3·00	100	0·10	61
Ahmednagar ...	33	19	83	8·00	63	4·00	88	3·00	69
Poona ...	23	23	128	6·00	81	9·00	94	6·00	90
Sholápur ...	19	19	45	1·00	66	3·00	96	2·00	98
Sátára ...	32	32	116	5·00	64	9·00	23	2·00	85

Note.—Columns 6, 8 and 10 show the percentage of entries found correct.

The number of circles visited was satisfactory, except in Khándesh. In Ahmednagar the comparative small number of villages visited by the District Inspector was due to the special attention paid by him to the instruction of the raw material of which the newly organized staff was composed. In Belgaum the District Inspector's work was totally insufficient, but in Poona and Sátára the District Inspectors were especially active and their test very comprehensive. On the whole, the work done by the District Inspectors was very creditable.

Check of the Village Census.

This census under Government orders was confined to agricultural stock, except where under special indent from the Survey Department a census of population was needed for revision settlement reports. The rule directing that the check should be taken in July was relaxed in

districts where heavy rains made communications difficult; in future the check will be taken at the time of the annual crop and waste inspection. Of the total entries checked on an average 84 per cent. were found correct, the percentage of correct entries varying from 77 to 89 per cent. The village registers of births and deaths were checked from time to time and omissions and wrong entries reported to the Deputy Sanitary Commissioners.

Boundary-mark Inspection.

Besides the attention paid to boundary marks during the crop and waste inspection, the Inspectors devoted three months to a systematic inspection and repair of marks, village by village. The object of this inspection is to traverse each village twice or thrice during the currency of a lease to maintain the field record up to date, so that at future revisions of rates no field work will be required. The inspection deals with marks defining roads, village site, public tanks and other Government waste; but only extends to marks between survey numbers in occupation when the village officers cannot without aid fix the places of missing marks, or decide the correct position of disputed marks. The number of villages in which this examination was completed during the year is marginally shown. In some districts the second inspection remained to be completed in the villages entered as complete.

Dhárwár	... 63	Násik	... 288
Bijápur	... 80	Ahmednágar	.. 132
Belgaum	... 62	Poona	... 87
Kánara	... 107	Sholápur	... 96
Khándesh	... 574	Satára	... 232

Measurement and Classing Work.

The amount of measurement and classing work (which comprises the work formerly done by Huzur Surveyors in subdividing numbers, making measurements required in land disputes and encroachments, &c.) carried out during the year showed a large increase, but there was a corresponding increase in the number of new cases received so that the arrears at the end of the year showed no diminution. Receipts from private individuals for measurement work done for them amounted to Rs. 1,614.

District Survey Offices.

A large amount of work was got through at the various district offices. It included corrections of the survey record, and ákárbands, maps and field books, and the supply of maps to village offices, extracts from field books to Circle Inspectors and extracts from survey books to revenue officers and petitioners. Receipts on account of fees amounted to Rs. 1,264 during the year.

Agricultural staff in the Ratnágiri District.

There were no village establishments in this district except in the two tálukás of Vengurla and Málvan. Six Circle Inspectors were employed in these tálukas. Twelve more were employed on miscellaneous measurement and other original work in the district, and were also from March to May utilized for the special test inspection of boundary marks required by Rule 104 of the rules under Section 214 of the Land Revenue Code.

The amount of crop and waste inspection performed in Vengurla and Málvan is shown below:—

Number of Villages in the Circle.		Crop Inspection.		Waste Inspection.	
		Number and area of Survey Numbers inspected.		Number and area of Survey Numbers inspected.	
Total.	Number inspected.	Number.	Area.	Number.	Area.
			Acres.		Acres.
69	55	1,071	4,851	37	382
Percentages.	80	8·4	3·6	22	24

The Inspectors examined all the marks of the numbers dealt with at this inspection. In Government waste 115 encroachments were detected, of which only 24 had been duly reported by the village officers. Boundary-mark inspection described above was commenced in 68 villages. The outturn of marks inspected was 64 daily per Inspector. Twenty per cent. of the marks inspected were found out of repair or missing. At the second inspection 72 per cent. of marks, found out of repair at the first inspection, were found duly repaired. During the boundary-mark inspection measurement was required in 315 cases to fix missing marks and 498 encroachments on roads, &c., were detected. The village census was checked in all the 10 villages of Vengurla but in none of Málvan. Four hundred and nineteen measurement cases were disposed of as against 257 last year in the whole district. Rs. 329 were received on account of extracts of maps as against Rs. 121 last year. Sanction was accorded to the increase of the number of Circle Inspectors from 18 to 26, which will in future considerably facilitate the collection of statistics in this district.

Agricultural experiments: Bhadgaon Farm.

This farm was sold to a private purchaser during the year under report, the inaccessibility of its situation and the dearth of labour in the vicinity making its retention undesirable. The price obtained for the land farm buildings, and live and dead stock was very satisfactory. The experiments made on the farm during the early part of the year were generally those which have been carried on in former years.

Poona Farm.

The operations on the Poona farm consisted of experiments made to test the feeding value of various fodder crops and to show the leguminous crops most suited to be grown with cereal crops. The crops experimented with were *Lathyrus sylvestris*, lucerne, guinea grass, *Rheana luxurians*, kulthi (*Dolichos uniflorus*), Sundhia jowári, and Kadwal, and two local varieties

of *Sorghum vulgare*, Shalu and Nilva, maize and oats. Guinea grass was first in point of merit as adjudged by wastage in feeding and next to it come the Sundhia, Shalu and Nilva, species of jowári. Lucerne showed a marked liability to disease, and *Lathyrus sylvestris* was again a total failure. Of the leguminous crops "vál" and "chavli" gave good results, but were found not to be so well suited to a light soil as "kulthi." Rye was tried in the hope of proving its utility as a source of charcoal for gunpowder, for which the straw is largely used in England, but was not a success. The dairy herd yielded a very good profit, notwithstanding that fodder was very dear in the earlier part of the year. The Ganeshkhind gardens which form an adjunct to the Poona Dairy Farm yielded a poorer crop of grass than usual. An attempt was made to make green hay, but the grass first cut was spoilt by an untimely rainfall. The mango crop was also poor, but the mango plantation was considerably extended.

Nadiád Farm.

The Association succeeded in distributing selected seed from its seed store for 800 acres of land or double the area of the previous year, a point which proves that its efforts in the distribution of seed are becoming more appreciated. American cotton failed, its yield as compared with Broach being 36 to 104 lbs. of clean cotton. There is nothing to encourage further attempts in Gujarát with exotic varieties of cotton. The farm was worked more systematically than hitherto.

Sind Farm, (Hyderábád).

This farm was under the management of the District Board by whom, it is to be converted into a dairy farm.

Experiments in indigenous and exotic products. Wheat.

The demand for Muzáffarnagar wheat in parts of Sind continued during the year. Though the area under this wheat in the Nára Valley decreased by 1,300 acres owing to prolonged floods and other causes, the percentage area under selected wheat on the total area of wheat was larger, *viz.*, 18 per cent. as against 16 per cent. in the previous year. The outturn of imported wheat also fell from 526 to 314 lbs. per acre, but even this lower outturn was above the out-turn of indigenous varieties. A further grant of Rs. 500 was made for the importation of wheat seed and also a new grant of Rs. 1,000 for the purchase of a variety of rape-seed from Sonmiáni which is superior to the local variety.

Cotton.

Acclimatized American cotton was being tried in Thar and Párkar and also in the Dhanduka Táluka of Ahmedábád by a private gentleman who considered the results hopeful.

Arrowroot.

Mr. Gogté of Dápoli (Ratnágiri) continued his arrowroot cultivation during the year. A trial shipment in 1891-92 to England induced a larger shipment of four tons during the year under review, but the price of Bermuda arrowroot had in the meanwhile fallen to 5*d.* per lb., and the consignment was sold off at only a little above 1*d.* per lb. Nevertheless, the local demand increased during the year, about 3,500 lbs. having been sold. Arrowroot is now used as a food on fast days.

Strawberries.

The Saháranpur strawberry continued to thrive at Mahábaleshvar. Two thousand new plants were brought, and though they arrived too late for the best results to be obtained, the quality of the crop was very good.

Indigo.

Indigo was grown in Junágadh again and also in Mahi Kántha.

Sericulture.

It was estimated that some 15,000 cocoons could be obtained from the forests of Thána at a cost of from 4 to 8 annas per 100. A trial consignment was sent to England through Messrs. David Sassoon and Company, but in London, Marseilles and Manchester the cocoons were practically unsaleable.

Utilization of bones.

The export of bones from the port of Bombay further increased during the year by 1,288 tons in quantity and by Rs. 27,000 in value, the total export having been 17,500 tons valued at Rs. 9,63,000.

Potato diseases.

Further researches were made during the year into the origin and treatment of the potato disease. It was found that copper sulphate solution protected sound plants from infection. The use of caustic lime and soot, and the cultivation of the potato ridges gave inconclusive results. The only real remedy appears to be the distribution of robust seed belonging to varieties known to be able to resist the disease. A grant of Rs. 5,000 was made by Government during the year for the purchase of seed from England, but the seed on arrival was found to be too unsound for distribution, a fact which was the more to be regretted as the cultivators were most eager to purchase it.

Locusts, &c.

Locusts were noticed in one district or another of Sind almost throughout the year, though they did little damage to crops. The Presidency Proper was free from their visitation. In two tálukas of Belgaum grasshoppers did some injury.

Rat Plague.

Rats caused considerable anxiety during the year appearing first as they did in the locality where they first appeared in 1878, that is, in the eastern tálukas of Belgaum. They were reported also from Sind and the Deccan, but they did most harm in the Karnátak (Bijápur, Belgaum and Dhárwár). The numbers however never became very numerous and no special assistance from Government was required. Strong pressure was put upon the people to destroy them. The Divisional Inspector, S. D., made several tours of investigation. Destruction was most successfully effected by digging the rats out of their holes as during the plague of 1889, but in the Parasgad Táluka the villagers divised a figure of 4 trap which was successfully used. As in 1879 the plague was stayed by opportune heavy rain, and by an enormous increase of ticks which appear to be the ordinary cattle ticks, and either infected healthy rats or attacked them when weakened by heavy rain.

Cultivated and uncultivated areas.

Details of areas cultivated and uncultivated are given in Appendix IV to this report. The following table gives the percentages represented by the figures therein shown. It must be noted, however, in comparing these figures with those of previous year that the figures are liable to variation in consequence of the progress of survey operations. The gross area returned for the Presidency is less by 11 square miles than in the previous year, and that for Sind is greater by 1,333 square miles; the principal cause of variation in the one case being the ascertainment of more correct figures for alienated villages, and in the other the revision of the estimate of the area unsurveyed in order to reconcile it with the estimates included in the Imperial Census Report. There is some uncertainty respecting the number of villages in Ratnágiri owing to the inclusion of hamlets in one year and then exclusion in another :—

District.	Percentage on gross areas for which statistics are not available.	Percentage on net area for which statistics are available of area.				
		Cultivated, i.e., occupied.		Uncultivated.		Forest.
		Actually cropped.	Current fallows.	Available for cultivation.	Not available for cultivation.	
A.—Presidency Proper.						
I.—Gujarát.						
Ahmedábád	1·0	58	20	3	18	1
Kaira	8·3	76	5	7	12	...
Panch Mahále	12·7	39	16	14	9	22
Broach	2·0	63	8	3	26	...
Surat	2·4	48	24	6	18	4
Average ... 1892-93 ...	4·4	57	16	6	17	4
Average ... 1891-92 ...	4·4	56	16	7	17	4
II.—Deccan.						
Khándesh	10·5	60	3	15	12	10
Násik	4·3	57	8	4	9	22
Ahmednagar	2·5	67	9	1	10	13
Poona	1·2	63	11	...	12	14
Sholapur	...	74	10	1	9	6
Satara	7·4	59	15	1	9	16
Average ... 1892-93 ...	4·8	63	9	5	10	13
Average ... 1891-92 ...	4·7	63	8	5	10	14
III.—Karnátak.						
Belgaum	2·4	62	13	3	6	16
Bijapur	0·7	79	8	3	5	5
Dhárwar	2·5	72	8	3	7	10
Average ... 1892-93 ...	1·8	72	9	3	6	10
Average ... 1891-92 ...	1·8	65	16	3	6	10
IV.—Konkan.						
Thána	3·1	21	21	6	31	21
Kolaba	3·6	30	24	4	21	21
Ratnágiri	84·7	32	33	...	32	3
Kánara	...	9	4	2	8	77
Average ... 1892-93 ...	25·8	19	15	4	23	39
Average ... 1891-92 ...	23·3	19	16	4	20	41
Average A. ... 1892-93 ...	8·0	58	11	4	12	15
Average A. ... 1891-92 ...	7·5	56	12	5	12	15
B.—Sind.						
Karáchi	29·4	7	7	17	67	2
Hyderabad...	...	15	24	40	19	2
Shikarpur	2·1	19	17	43	15	6
Upper Sind Frontier	48·4	24	39	18	14	5
Thar and Parkar	...	7	10	5	76	2
Average B. ... 1892-93 ...	11·9	12	15	23	47	3
Average B. ... 1891-92 ...	13·9	11	15	23	48	3
Average for Presidency. ... 1892-93 ...	9·5	40	12	12	25	11
Average for Presidency. ... 1891-92 ..	9·9	39	13	12	25	11

Excluding for the reasons given above Sind and Ratnágiri, the gross cropped area showed an increase of 961,000 acres or 3·8 per cent., and the area cropped more than once an increase of 350,000 acres or 82·5 per cent. The increase in area cropped was noticeable in Sind, Gujarát and the Karnátak, especially the last mentioned, where the area cropped in the previous year had been unusually small owing to the drought. The improvement in the area under second crop was due to the unusual amount of moisture left in the soil by the heavy rainfall of the year.

Crops: area under cultivation.

The main features of the season and harvest of the year are described elsewhere in this report. Occasionally speaking there was an increase both under food and non-food crops. All cereals including early jowári, all pulses, and cotton showed a considerable increase, while, on

the other hand, there was a large decrease under late jowári and a small decrease under tobacco, sugarcane and oil-seeds. The following table shows the effect of the season on the area sown :—

PRESIDENCY PROPER, EXCLUDING RATNA'GIRI.

Crops.	Area in Acres, (000 omitted). 1891-92.	1892-93.	Increase, per cent.	Decrease, per cent.
Jowári...	8,325	7,122	...	14·5
Bajri	4,837	5,451	12·7	...
Paddy...	1,554	1,623	4·4	...
Wheat...	1,738	1,918	10·4	...
Others...	1,6 23	1,688	4·0	...
Total, Cereals ...	18,077	17,802	...	1·5
Tur	451	808	79·2	...
Gram	617	762	23·5	...
Others...	1,109	1,631	47·1	...
Total, Pulses ...	2,177	3,201	47·0	...
Tobacco	76	68	...	10·5
Sugarcane	75	68	...	9·3
Oil-seeds	1,500	1,493	...	0·5
Cotton...	2,521	2,702	7·2	...
Total, Food crops ...	20,499	21,225	3·5	...
Total, Non-food crops, ...	4,355	4,590	5·4	...
Total, Crops ...	24,854	25,815	3·9	...

Kharif and rabi crops.

The details given in the appended table show variations under khárif and rabi cereals and pulses :—

Year.	Area in Acres, (000 omitted). Kharif. Cereals.	Kharif. Pulses.	Rabi. Cereals.	Rabi. Pulses.
1891-92	10,664	1,403	7,569	792
1892-93	12,246	2,235	5,655	980
	+1,582	+832	—1,914	+188

The following statement shows the percentages of food and other crops on the gross area cropped in each district :—

No.	District.	Food Crops. Cereals. Jowári.	Bájri.	Paddy.	Wheat.	Coarse Grain.	Others.	Total.	Pulses.	Others.	Non-food Crops. Cotton.	Oil-seeds.	Others.	Total. Food Crops.	Non-food Crops.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	A.—Presidency Proper.														
	I.—Gujarát.														
1	Ahmedábád	26	17	6	17	4	2	72	8	1	16	3	...	81	19
2	Kaira	8	31	15	2	22	1	79	18	1	2	2	3	93	7
3	Panch Mahále	2	11	14	5	13	25	70	19	...	...	9	2	89	11
4	Broach	17	4	3	18	1	...	43	12	3	39	2	1	58	42
5	Surat	23	1	19	8	9	...	59	18	2	14	6	1	79	21
	Average ... 1892-93 ...	18	14	10	11	10	4	67	13	1	15	4	1	80	20
	Average ... 1891-92 ...	18	14	9	9	9	4	63	11	1	20	4	1	75	25
	II.—Deccan.														
6	Khándesh	17	22	1	9	1	...	50	9	...	35	5	1	59	41
7	Násik	5	38	3	15	9	...	70	14	1	3	11	1	85	15
8	Ahmednagar	29	35	...	8	2	...	74	14	1	3	7	1	89	11
9	Poona	28	37	3	5	5	1	79	13	1	...	7	1	92	8
10	Sholapur	48	20	1	3	...	1	73	14	...	1	10	2	87	13
11	Satára	28	30	2	4	8	1	73	19	1	...	6	2	93	7
	Average ... 1892-93 ...	26	30	2	7	4	...	69	13	1	9	7	1	83	17
	Average ... 1891-92 ...	32	29	1	7	4	1	74	8	1	9	7	1	83	17

No.	District.	Food Crops.									Non-food Crops.			Total.	
		Cereals.													
		Jowári.	Bájri.	Paddy.	Wheat.	Coarse Grain.	Others.	Total.	Pulses.	Others.	Cotton.	Oil-seeds.	Others.	Food Crops.	Non-food Crops.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	III.—Karnátak.														
12	Belgaum	39	12	6	5	8	...	70	14	1	8	4	3	85	15
13	Bijápur	50	15	...	5	2	...	72	11	...	11	5	1	83	17
14	Dhárwár	34	...	7	10	8	...	59	12	1	21	4	3	72	28
	Average ... 1892-93 ...	42	10	4	7	5	...	68	11	1	18	5	2	80	20
	Average ... 1891-92 ...	52	5	5	6	6	...	74	8	1	10	5	2	83	17
	IV.—Konkan.														
15	Thána	...	...	64	...	22	...	86	8	1	...	4	1	95	5
16	Kolába	...	...	59	...	32	...	91	6	1	...	2	...	98	2
17	Ratnágiri	...	...	34	...	42	...	76	11	5	...	6	2	92	8
18	Kánara	1	...	78	...	2	...	81	3	9	...	1	6	93	7
	Average ... 1892-93 ...	...	...	63	...	23	...	85	7	3	...	3	2	95	5
	Average ... 1891-92 ...	...	...	61	...	25	...	86	6	3	...	3	2	95	5
	Average A. ... 1892-93 ...	28	21	6	7	6	1	69	13	1	10	6	2	82	18
	Average A. ... 1891-92 ...	33	19	7	7	6	1	73	9	1	10	6	1	83	17
	B.—Sind.														
19	Karáchi	20	8	29	14	...	4	75	6	2	...	16	1	83	17
20	Hyderábád	10	39	18	7	...	1	75	3	3	5	13	1	81	19
21	Shikárpur	34	2	20	31	...	1	78	11	1	...	9	1	90	10
22	Upper Sind Frontier	37	6	4	13	...	...	62	7	1	...	30	...	70	30
23	Thar and Párkar	1	71	15	4	...	...	91	1	2	3	3	...	94	6
	Average B. ... 1892-93 ...	17	25	19	16	...	1	78	6	2	2	11	1	86	14
	Average B. ... 1891-92 ...	15	24	23	14	...	1	77	6	2	4	10	1	85	15
	Average for the Presidency. 1892-93 ...	26	22	8	8	5	1	70	12	1	9	6	2	83	17
	Average for the Presidency. 1891-92 ...	31	20	8	8	5	1	73	9	1	9	7	1	83	17

Outturn of crops.

The following table gives the anna valuation of the outturn of the principal crops in each district. The valuation (by Mamlatdárs) purports to conform to the prescribed standard, *i.e.* 16 annas represent an average crop. The table must, however, be taken as representing a merely approximate estimate.

No.	District.	Average Anna Valuation.									
		Jowári.	Bájri.	Paddy.	Wheat.	Kodra.	Rági.	Vari.	Turi.	Gram.	Cotton.
	Gujarát.										
1	Ahmedábád	7	7	12	11	9	6	12	11	11	9
2	Kaira	9	9	13	12	9	10	11	12	12	10
3	Panch Maháls	Maize. 11	7	12	11	10	10	8	7	13	8
4	Broach...	11	9	14	16	12	...	...	11	10	17
5	Surat	9	8	14	13	12	8	7	11	9	9
	Deccan.										
6	Khándesh	10	14	12	12	...	15	...	11	11	9
7	Násik	13	11	13	13	...	14	13	12	13	11
8	Ahmednagar	10	11	11	13	...	...	...	11	13	7
9	Poona	13	14	11	10	11	12	11	8	12	2
10	Sholápur	11	8	10	11	4	2	11	8	9	5
11	Sátara	9	9	12	9	7	11	10	9	12	8
	Karnátak.										
12	Belgaum	10	13	14	11	8	9	10	9	12	13
13	Bijapur...	7	9	9	10	...	...	...	6	8	10
14	Dhárwár	10	8	13	11	6	8	8	5	11	13
	Konkan.										
15	Thána	...	...	13	12	13	11	10	9	12	...
16	Kolába...	...	...	12	...	9	10	11	8	14	...
17	Ratnagiri	...	...	11	...	11	11	10	7	...	...
18	Kánara	10	...	14	...	...	11	12	5	7	...
	Sind.										
19	Karáchi	8	12	10	10	...	11	10	...	9	9
20	Hyderábád	12	13	12	12	...	...	...	...	10	11
21	Shikarpur	12	13	13	13	...	...	...	...	13	9
22	Upper Sind Frontier...	13	13	14	14	...	10	...	...		13
23	Thar and Párkar	11	13	13	11	...	...	...	...		14

Note.—In the above table the valuations are calculated on the standard by which 16 annas represent an average crop.

the other hand, there was a large decrease under late jowári and a small decrease under tobacco, sugarcane and oil-seeds. The following table shows the effect of the season on the area sown :—

PRESIDENCY PROPER, EXCLUDING RATNA'GIRI.

Crops.	Area in Acres, (000 omitted).		Increase, per cent.	Decrease, per cent.
	1891-92.	1892-93.		
Jowári...	8,325	7,122	...	14·5
Bajri ...	4,837	5,451	12·7	...
Paddy...	1,554	1,623	4·4	...
Wheat...	1,738	1,918	10·4	...
Others...	1,6 23	1,688	4·0	...
Total, Cereals ...	18,077	17,802	...	1·5
Tur ...	451	808	79·2	...
Gram ...	617	762	23·5	...
Others...	1,109	1,631	47·1	...
Total, Pulses ...	2,177	3,201	47·0	...
Tobacco ...	76	68	...	10·5
Sugarcane ...	75	68	...	9·3
Oil-seeds ...	1,500	1,493	...	0·5
Cotton...	2,521	2,702	7·2	...
Total, Food crops ...	20,499	21,225	3·5	...
Total, Non-food crops, ...	4,355	4,590	5·4	...
Total, Crops ...	24,854	25,815	3·9	...

Kharif and rabi crops.

The details given in the appended table show variations under kharif and rabi cereals and pulses :—

Year.	Area in Acres, (000 omitted).			
	Kharif.		Rabi.	
	Cereals.	Pulses.	Cereals.	Pulses.
1891-92 ...	10,664	1,403	7,569	792
1892-93 ...	12,246	2,235	5,655	980
	+1,582	+832	—1,914	+188

The following statement shows the percentages of food and other crops on the gross area cropped in each district :—

No.	District.	Food Crops.									Non-food Crops.			Total.	
		Cereals.													
		Jowári.	Bajri.	Paddy.	Wheat.	Coarse Grain.	Others.	Total.	Pulses.	Others.	Cotton.	Oil-seeds.	Others.	Food Crops.	Non-food Crops.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	A.—PRESIDENCY PROPER.														
	I.—Gujarát.														
1	Ahmedábád ...	26	17	6	17	4	2	72	8	1	16	2	...	81	19
2	Kaira ...	8	31	15	2	22	1	79	13	1	2	2	2	93	7
3	Panch Mahále ...	2	11	14	6	13	25	70	19	...	...	9	2	89	11
4	Broach ...	17	4	3	18	1	...	43	12	3	39	2	1	58	42
5	Surat ...	22	1	19	8	9	...	59	18	2	14	6	1	79	21
	Average ... 1892-93	18	14	10	11	10	4	67	13	1	15	4	1	80	20
	Average ... 1891-92	18	14	9	9	9	4	63	11	1	20	4	1	75	25
	II.—Deccan.														
6	Khándesh ...	17	23	1	9	1	...	50	9	...	35	5	1	59	41
7	Násik ...	5	38	3	15	9	...	70	14	1	3	11	1	85	15
8	Ahmednagar ...	29	35	...	8	2	...	74	14	1	3	7	1	89	11
9	Poona ...	28	37	3	5	5	1	79	12	1	...	7	1	92	8
10	Sholapur ...	48	20	1	3	...	1	73	14	...	1	10	2	87	13
11	Satára ...	28	30	2	4	8	1	73	19	1	...	5	2	93	7
	Average ... 1892-93	26	30	2	7	4	...	69	13	1	9	7	1	83	17
	Average ... 1891-92	32	29	1	7	4	1	74	8	1	9	7	1	83	17

No.	District.	Food Crops. Cereals. Jowári.	Bájri.	Paddy.	Wheat.	Coarse Grain.	Others.	Total.	Pulses.	Others.	Non-food Crops. Cotton.	Oil-seeds.	Others.	Total. Food Crops.	Non-food Crops.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	III.—Karnátak.														
12	Belgaum	39	12	6	5	8	...	70	14	1	8	4	3	85	15
13	Bijapur	50	15	...	5	2	...	72	11	...	11	5	1	83	17
14	Dhárwár	34	...	7	10	8	...	59	12	1	21	4	3	72	28
	Average ... 1892-93 ...	42	10	4	7	5	...	68	11	1	13	5	2	80	20
	Average ... 1891-92 ...	52	5	5	6	6	...	74	8	1	10	5	2	83	17
	IV.—Konkan.														
15	Thána	...	...	64	...	22	...	86	8	1	...	4	1	95	5
16	Kolába	...	...	59	...	32	...	91	6	1	...	2	...	98	2
17	Ratnágiri	...	...	34	...	42	...	76	11	5	...	6	2	92	8
18	Kánara	1	...	78	...	2	...	81	3	9	...	1	6	93	7
	Average ... 1892-93 ...	...	...	63	...	23	...	85	7	3	...	3	2	95	5
	Average ... 1891-92 ...	...	...	61	...	25	...	86	6	3	...	3	2	95	5
	Average A. ... 1892-93 ...	28	21	6	7	6	1	69	12	1	10	6	2	82	18
	Average A. ... 1891-92 ...	33	19	7	7	6	1	73	9	1	10	6	1	83	17
	B.—Sind.														
19	Karáchi	20	8	29	14	...	4	75	6	2	...	16	1	83	17
20	Hyderábád	10	39	18	7	...	1	75	3	3	5	13	1	81	19
21	Shikárpur	34	2	20	31	...	1	78	11	1	...	9	1	90	10
22	Upper Sind Frontier	37	8	4	13	...	...	62	7	1	...	30	—	70	30
23	Thar and Párkar	1	71	15	4	...	...	91	1	2	3	3	...	94	6
	Average B. ... 1892-93 ...	17	25	19	16	...	1	78	6	2	2	11	1	86	14
	Average B. ... 1891-92 ...	15	24	23	14	...	1	77	6	2	4	10	1	85	15
	Average for the Presidency. 1892-93 ...	26	22	8	8	5	1	70	12	1	9	6	2	83	17
	Average for the Presidency. 1891-92 ...	31	20	8	8	5	1	73	9	1	9	7	1	83	17

The following table gives the anna valuation of the outturn of the principal crops in each district. The valuation (by Mamlatdárs) purports to conform to the prescribed standard, *i.e.* 16 annas represent an average crop. The table must, however, be taken as representing a merely approximate estimate. Outturn of crops.

No.	District.	Average Anna Valuation. Jowári.	Bájri.	Paddy.	Wheat.	Kodra.	Rági.	Varí.	Turi.	Gram.	Cotton.
	Gujarát.										
1	Ahmedábád	7	7	12	11	9	6	12	11	11	9
2	Kaira	9	9	13	12	9	10	11	12	12	10
3	Panch Mahála	Maize. 11	7	12	11	10	10	8	7	13	8
4	Broach...	11	9	14	16	12	...	...	11	10	17
5	Surat	9	8	14	13	12	8	7	11	9	9
	Deccan.										
6	Khándesh	10	14	12	12	...	15	...	11	11	9
7	Násik	13	11	13	13	...	14	13	12	13	11
8	Ahmednagar	10	11	11	13	...	...	...	11	13	7
9	Poona	13	14	11	10	11	12	11	8	12	2
10	Sholápur	11	8	10	11	4	2	11	8	9	5
11	Sátára	9	9	12	9	7	11	10	9	12	8
	Karnátak.										
12	Belgaum	10	13	14	11	8	9	10	9	12	13
13	Bijapur...	7	9	9	10	...	...	...	6	8	10
14	Dhárwar	10	8	13	11	6	8	8	5	11	13
	Konkan.										
15	Thána	...	...	13	12	13	11	10	9	12	...
16	Kolába...	...	...	12	...	9	10	11	8	14	...
17	Ratnagiri	...	...	11	...	11	11	10	7	...	...
18	Kánara	10	...	14	...	...	11	12	5	7	...
	Sind.										
19	Karáchi	8	12	10	10	...	11	10	...	9	9
20	Hyderábád	12	13	12	12	...	...	...	...	10	11
21	Shikárpur	12	13	13	13	...	...	...	...	13	9
22	Upper Sind Frontier...	13	13	14	14	...	10	...	...	[illegible]	12
23	Thar and Párkar	11	13	13	11	...	...	...	...	[illegible]	11

Note.—In the above table the valuations are calculated on the standard by which 16 annas represent an average crop.

The outturn was on the whole fairly good. It would have been much better, but for the injurious rain of August in Gujarát and of October in the Deccan and Karnátak. Paddy, wheat and gram yielded fairly average harvests all over. Jowári, bájri and cotton did fairly well.

Fruit trees.

An increase is reported in all kinds of trees except under jack and date palm; it is especially large in cocoanut and mango. The attempt to ascertain the number of important fruit trees was continued during the year. Without being accurate, the returns are valuable as showing the distribution of trees. Those in forest and on village sites are not enumerated.

Irrigation.

The net irrigated area in the year under report amounted to 3·18 per cent. of the net area cropped in the Presidency proper and 86·71 per cent. in Sind as against 3·23 and 87·31 respectively in the previous year. The total area irrigated showed an increase of 6,000 acres or 0·7 per cent., and that under crops irrigated an increase of 33,000 acres or 3·7 per cent. There was a decrease in the area irrigated from cereals in the South Deccan owing to the scanty supply of water available, while there was an increase in the North Deccan caused by an unusually large demand for water owing to the dryness of the year. The area irrigated from tanks and wells increased in the majority of the districts, though there was a marked falling off in the Ahmednagar district for which it is hard to account. Among irrigated crops, wheat showed an increase of 44,000 acres, chiefly in the Poona, Násik and Sátára districts. There was a decrease in the area under sugarcane and rice.

Advances to Cultivators.

The following table shows the amounts advanced by Government, under Acts XII of 1884 and XIX of 1883, to cultivators in various parts of the Presidency during the past two years:—

District.	1891-92.		1892-93.	
	For purchase of seed and cattle.	For permanent improvements.	For purchase of seed and cattle.	For permanent improvements.
	Rs.	Rs.	Rs.	Rs.
Ahmedábád	11,342	3,900	2,250	2,800
Kaira	883	4,625	1,354	2,015
Panch Mahals	565	.....	350	200
Broach	2,407	188	500	3,990
Surat	975	9,901	260	18,640
Thana	.....	.....	2,110	330
Násik	9,367	19,013	5,936	24,822
Khándesh	5,721	2,000	7,424	1,700
Ahmednagar	1,360	18,500	1,845	11,650
Poona	.....	86,185	705	44,450
Sholápur	4,461	23,105	2,150	63,355
Sátára...	480	17,645	505	19,645
Belgaum	1,120	1,78,170	5,352	59,310
Dharwar	.....	2,60,300	46,519	55,841
Bijapur	500	1,04,478	35,743	32,020
Ratnagiri	.....	.....	.....	.....
Kánara	.....	18,950	.....	23,000
Kolába	1,525	.....	7,778	1,900
Karachi	23,200	2,400	63,766	9,810
Hyderabád	5,967	2,333	9,975	10,625
Shikarpur	3,740	19,150	3,805	14,205
Thar and Parkar	9,025	.....	8,590	400
Upper Sind Frontier ...	41,573	200	24,042	350
Total ...	1,24,211	7,71,043	2,30,959	4,00,838

The amount given as takávi in 1891-92 was very unusual and was due to the widespread distress in the Deccan and Karnátak during that year, when the policy of making liberal takávi advances was generally adopted and with marked success. Excluding this abnormal year it is worthy of notice that the takávi advances of 1892-93 were nearly double those of 1890-91 which again were double those of the year before. The progress therefore has been steady and satisfactory. The popularity of takávi advances in the five divisions of the Presidency may be compared. Gujarát took the least advantage of the loans, an indication to some extent of the easy circumstances of the cultivating classes. In this province, however, a considerable sum was advanced in the Mehmadábád Táluka of the Kaira District to ryots who had suffered largely by the destructive floods of September 1892. Large advances for permanent improvements were also made in Surat. In the Khándesh District, where the rainfall is generally sure, large advances were given to Bhils for seed. In Sholápur the two tálukas of Sángola and Málsiras, which have the most precarious rainfall in the district, absorbed three-quarters of the advances. Throughout the Deccan the popularity of takávi showed marked increase. In the Karnátak where the system has been most popularized the demand largely exceeded the allotment. In the Konkan a new and satisfactory development was apparent. In Kánara considerable sums were taken for laying out new spice gardens after special assurance had been given by the Collector that such improvements would not entail liability to increased assessment at revision. In Kolába advances were largely utilized for field embankments and in Thána advances were applied for for the conversion

of dry-crop varkas into rice land. In Ratnágiri the khoti tenure seems to be fatal to any improvement in this direction. In Sind the advances under the Agriculturists' Loans Act were larger than those under the Land Improvement Act. Under the former Act the advances were used for canal clearances, but largely also for the purchase of seed. A particularly large sum of Rs. 63,000 was advanced for seed in the Sháhbandar Division of Karáchi. Concurrently with the marked improvement above described it is satisfactory to notice that cases of misapplication of the loans have been very few, which is additional proof that the enlarged facilities for Government loans recently accorded have not been abused.

Agricultural Stock.

The figures in the following paragraphs are taken from Appendix IV—A (4) in Part III of this report, the figures for which are supplied by the Survey Commissioner and Director of Land Records and Agriculture.

No trustworthy information as to agricultural stock in Sind has been supplied. Sind.

The number of head of cattle in the Northern Division rose from 1,937,107 in the previous year to 1,977,997 during the year under review. The increase was observed in every district except those of Kaira and Surat and was attributable to the importation of cattle to take advantage of the abundant forage, to the extension of cultivation, and to the purchase of additional stock by cultivators out of takávi advances. Cattle disease appeared in the Broach and Thána districts during the year but did not do much damage, 32 cattle dying from it in Thána and none at all in Broach. The number of horses and ponies showed a slight increase and there was also an improvement in the number of carts, both those kept for riding and for carrying loads. On the other hand the number of ploughs, both large and small, showed a falling off, which is difficult to explain in view of the increase in the area under cultivation. There was also a slight falling off in the number of sheep and goats. Northern Division.

The total number of cattle increased from 3,703,038 to 3,916,384 consequent on the return of cattle from foreign grazing grounds and possibly larger purchases owing to the superfluity of fodder. Both large and small ploughs and horses and ponies, also showed an increase; which is probably attributable to the same causes. There was an improvement in the number of carts due to the necessity of larger means of carriage consequent on large exports which were caused by the high prices that prevailed, though the number of carts in Málegaon táluka of Násik district fell off owing to the cotton crop having been damaged by heavy rain. Sheep and goats also increased. No cattle disease of a severe type made its appearance during the year. Central Division.

In the Southern Division the number of cattle fell from 2,505,912 to 2,362,017 and sheep from 502,681 to 478,562, while goats increased from 381,333 to 386,669. It is difficult to account for the fluctuations in the number of sheep and goats; they are probably due to defects in the system of enumeration which must always, owing to the roving habits of the herdsmen, be somewhat inaccurate. The decrease in the number of cattle is no doubt due to the return to their homes in the Madras Presidency of cattle sent to Kárwár in the previous year in search of fodder and to the fact that the number of villages in Ratnágiri for which returns are furnished is much smaller than in the previous year. There was a decrease in the number of ploughs which it is impossible to account for. The only district where cattle disease appeared in a severe form was Kánara, where some 651 cattle died of it. There was a general increase in the number of carts used for carrying loads except in the Ratnágiri district; carts for riding on the other hand showed a slight decline. Southern Division.

Horse and Mule Breeding.

The number of the stallions serving in the Bombay Presidency, exclusive of Beluchistán, was 74 as against 76 in the previous year. In Beluchistán the number of stallions serving fell from 23 to 20, so that the total number of stallions under the supervision of the Superintendent, Civil Veterinary Department, was 94 as against 99 in the previous year. Four horses died during the year, two were transferred to Bengal, and four were sold as unfit; while 8 were acquired by purchase or transfer. Of those in the Presidency proper, 45 were standing in the Deccan, 10 in Gujarát and 19 in Sind and Cutch. Number and location of stallions.

The number of branded mares covered was 3,109 as against 3,087 last year. The percentage of produce foaled rose from 40·76 to 42·24. The average cost of maintenance per stallion rose from Rs. 386 to Rs. 395 owing to high rates for gram and fodder. The number of branded mares was 11,855 as against 13,125 in the previous year. This decrease was however probably more nominal than real, owing to the inaccuracy of returns previous to the year under report. Horse-breeding.

The number of castrations exclusive of operations performed at the Remount Depôt was 326 as against 320 in 1891-92. Castrations.

The number of donkey stallions in the Presidency at the close of 1891-92 was 23; during the year under report two were received by importation and one by transfer, one was sold, and one destroyed, making the total at the end of the year under report 24. The number of pony mares covered was 846 as against 1,019 in the previous year. The decrease was due to some of the stallions being sick during part of the year. Mule-breeding.

The total expenditure of the Department rose from Rs. 66,767 in 1891-92 to Rs. 68,268 in the year under report. Of this amount Rs. 43,118 were contributed by Provincial Revenues, Rs. 14,145 by Local Funds, and Rs. 11,005 by the Government of India. Expenditure.

HORSE, CATTLE AND AGRICULTURAL SHOWS.

The principal shows of the year were:—

Province.	Place.	Kind of Show.	Date.	Prize Money.	Contributions.
				Rs.	
Deccan	Ahmednagar ...	Horse and Cattle Show and Agricultural Exhibition.	7th to 9th November 1892.	1,805 Horses; 283 other animals; 300 Agricultural Products.	Government grant Rs. 2,000; Ahmednagar and Poona District Local Boards Rs. 500 each; Their Excellencies the Governor and Commander-in-Chief each Rs. 100.
Sind	Jacobábád ...	Horse Show	9th to 11th January 1893.	4,485	Government grant Rs. 2,000; District Local Board, Shikárpur, 2,500; District Local Board, Upper Sind Frontier, Rs. 1,200.
Southern Marátha Country.	Chinchli ...	Agricultural Horse and Cattle Show.	2nd to 4th February 1893.	2,327 Horses; 1,206 other animals; 576 Agricultural Products.	Kolhápur Darbár Rs. 2,000; Miraj Junior Rs. 1,000; Handurg Rs. 901; Sángli Rs. 600; Miraj Senior Rs. 500; other Chiefs Rs. 1,005.
Gujarát	Ahmedabád ...	Horse Show	20th to 23rd February 1893.	1,789	Government grant Rs. 1,000; His Highness the Gáikwár Rs. 500; Ahmedábád District Local Board Rs. 500; other contributions Rs. 570.
Sind	Naushábro ...	Horse and Cattle Show.	23rd to 24th February 1893.	1,433 Horses; 817 Cattle.	Funds provided by Naushábro Táluka Local Board.

Poona-Ahmednagar Horse and Cattle Show and Agricultural Exhibition.

The amalgamated Poona-Ahmednagar show held during the year at Ahmednagar, was a decided advance in both number and quality of animals as compared with former shows held at Ahmednagar. The number of horse exhibits rose from 271 to 585, of which 336 were from Ahmednagar and 212 from Poona. The rest hailed from Sholápur, Sátára and the states of Hyderábád and Phaltan. The classes for brood mares and young stock were specially commended for their excellence. Geldings were poorly represented. Only four animals were purchased for the Remount Rearing Depôt, because private dealers, who purchased at least 22 animals, paid higher prices than the Government Agent could give. The question of prohibiting the purchase by Remount Officers of mares and fillies was again raised. The exhibits from Poona (chiefly from Bhimthadi and Sirur Táluqas) though fewer in number carried off 40 prizes of the value of Rs. 1,070 as compared with 50 prizes worth Rs. 780 awarded to the Ahmednagar exhibits. A decided improvement was visible in cattle, the total number of exhibits having risen from 124 to 417. The exhibits were chiefly from the Ahmednagar District. Bullocks and milch buffaloes were particularly good. Most of the prize-winners however were imported cattle, and it has been suggested that in future prizes should be restricted to those imported for *boná fide* stud purposes, otherwise these prizes can in no way tend towards the improvement of local breeds. The exhibition of agricultural products except fruits and vegetables which had been damaged by the recent excessive rain was much better than that of the previous year, and prizes to the amount of Rs. 300 were awarded. The total expenditure amounted to Rs. 4,724 as against receipts of Rs. 3,393, and the deficit had to be met from the previous year's balance which was reduced from Rs. 1,804 to Rs. 473.

Sind Horse Show.

This was the third show held at Jacobábád and the eighth held in Sind. The number of horses exhibited (1,365) was about the same as at the last Jacobábád show in 1891, but 50 per cent. more than at the Shikárpur show of 1892. In point of quality also, the results were more encouraging than even those of the Shikárpur show, which was better than any former Sind show. Out of 17 classes the judges classed the following only as poor: fillies 3 to 4 years old by Government stallions, colts 3 years and under by Government stallions, geldings, donkey mares and a section of the miscellaneous class. Eighty remounts at an average price of Rs. 231, 13 young stock for the Government nursery and 34 mules were purchased by Government. More good remounts could have been sold had there been purchasers, and many, which were sold, failed to fetch their value. The number of mules exhibited was 98 against 168 last year, the highest on record. The number of geldings exhibited was 88 as against 28 and 41 of the previous two years, a satisfactory evidence of progress made in the practice of castration in Sind. The receipts were Rs. 5,700, of which Rs. 4,485 were given in prizes. Beluchi owners carried off more than half while Shikárpur which contributed Rs. 2,500 to the funds only, secured prizes to the amount of Rs. 540. Government, however, declined to press the Quetta Agency for a contribution or to allow certain closed classes to keep out foreigners, on the ground that healthy rivalry is the best stimulus to improvement in horse-breeding. Beluchistan further holds its own show at Sibi, to which Sind horses are freely admitted.

Kolhápur Horse and Cattle Show.

The census prevented a show in 1891 and failure of crops made it inadvisable to hold the show in 1892. The show of 1893 was graced by the presence of His Excellency the Governor, and the exhibition was on the whole most satisfactory. Exhibits numbered 651 including 237 horses. British districts exhibited 95 horses and about one-third of other animals. Among horses, the young stock showed great promise, notably the 3 year old fillies. Three animals bred in British territory by Government stallions were purchased for the Remount Rearing Depôt. Brood mares were decidedly good; but the best came from the British Districts. One hundred and twenty-eight prizes of the value of Rs. 2,327 were awarded. For cattle there were 83 prizes worth Rs. 1,138. The cattle classes were well filled, the Krishna Valley breed being conspicuous. There was an inferior show of milch cattle. Agricultural implements and products (such as prepared bundles of aloe and plantain fibre, which were particularly good) were also exhibited. The Southern Marátha Chiefs and Sardárs contributed handsomely to the show, so that of a total expenditure of Rs. 7,825 only Rs. 2,000 fell on the Kolhápur Darbár.

This show was not successful. No remounts were found. Nearly two-fifths of the advertized prize-money was withheld. The expenditure was only Rs. 3,098 and the closing balance was Rs. 3,510. The suggestion of establishing in Gujarát or Káthiáwár a nursery for the rearing of young stock in lieu of or in addition to a show was under consideration in the Military Department. The declining state of the Ahmedábád show also led Government to order enquiry into the present system of horse-breeding in Gujarát. Ahmedábád Horse Show.

This was a new and successful show started at the instance of the Superintendent, Civil Veterinary Department, for the benefit of Lower Sind. Funds were provided by reappropriation in the Local Board Budgets. The animals exhibited were 325 horses, 13 mules and 226 cattle. The number of prizes advertised was 82, but it was subsequently raised to 123, aggregating Rs. 1,750 in value. There was a strong muster of brood mares and a fair entry of horses suitable for remounts. Oxen for agricultural purposes formed a very large class; on the other hand geldings, mules, milch cows and young stock were meagrely represented. The bullock class did not fill, the explanation being that castration of bulls is little practised on account of the docile tempers of the indigenous breeds. As to quality, the geldings (10 in number) formed the only class described as bad or indifferent. No purchases were made on the show ground. Naushahro Horse and Cattle Show.

Weather and Crops.

METEOROLOGICAL DEPARTMENT OF WESTERN INDIA.

The number of observatories was the same as in the previous year, there being 12 second class and 11 third class. Observatories and observations.

Province.	Second Class.	Third Class.	Province.	Second Class.	Third Class.
Bombay Presidency ...	Karáchi ...	Hyderábád.	Rájputána...	Mount Abu ...	Bickánir.
Do. ...	Deesa... ...	Bhúj.	Central India	.....	Neemuch.
Do. ...	Poona ...	Rájkot.	Do.	.....	Indóre.
Do. ...	Belgaum ...	Verával.	Berár	Akola... ...	.....
Do. ...	Jacobábád ...	Surat.	Do.	Chikulda ...	Amráoti.
Do. ..	Sholapur ...	Málegaon.	Do.	Buldána ...	... ..
Do. ...	Ratnagiri ...	.....	Malabár Coast	.....	Calicut.
Do. ...	Kárwar ...	.....			

The second class observatories communicated their 10 and 16 hour observations to the Bombay office for reduction, tabulation and correction.

A new tower for erecting a wind vane and an anemometer near the Observatory was built at Ratnágiri and the thermometer shed at Kárwár was re-thatched. Meteorological buildings.

The observations supplied by observers were for the most part satisfactory, but were not all continuous, and a few of them were of doubtful character as shewn below:— Character of the work of observers.

Station.	Period.	Observations.	Remarks.
Sholápur...	May 2nd, 3rd and 4th ...	No observations of any kind.	Observer ill.
Akola	December 1st to 19th ...	Do. ...	Do.
Deesa	August 23rd to 28th ...	Dry and wet minimum rejected.	
Ratnágiri	.....	.....	Barometric observations untrustworthy, maximum thermometer readings doubtful, partly on account of a bad method of setting and partly through defects in instrument.
Mount Abu	April 18th to 30th and May.	No barometric observations.	Instrument broken.
Belgaum...	January 9th, 10th, and 11th; 16th and 23rd.	No observations at 16 hours of barometer, maximum dry and wet bulb. No observations of any kind.	Observer ill.
Kárwár	.....	.....	Anemometer observations doubtful.
Karáchi	August 19th, 20th and 21st.	No observation of any kind.	Observer ill.

The anemograph was out of order for 23 days at Belgaum and for 72 days at Deesa.

The work of preparing and publishing the report was continued in the same way as in past years. The number of reporting stations was increased by four, namely, Bhuj, Jeypore, Aurangábád and Ahmedábád. The last three stations were included in the report at the request of the Chamber of Commerce. No change was made in the time of publication or in the matter included in the Report. Daily weather report and chart.

Office work.

As usual, extracts from the logs of vessels that touched at the port continued to be regularly taken and the instruments on board compared. The number of vessels whose logs were thus examined was 817.

BRIEF SKETCH OF THE METEOROLOGY OF THE BOMBAY PRESIDENCY IN 1892-93.

General character.

The year 1892 was a year of barometric minimum and, consequently, one of excessive rainfall, throughout the whole of the Bombay Presidency. The year 1892 was in some respects similar to 1878 and presented some features of importance, such as a very low barometer in April and July and a relatively high barometer in June and November.

Tables and diagrams.

The mean monthly values of the various meteorological elements at Karáchi, Deesa, Bombay, Poona and Belgaum and the deviations of these values from the normal conditions of the season are given in the accompanying diagram (Figures I to XXXV) in a graphical form. The excessive or defective rainfall in each of the several districts is represented by Figs. XXXVI to XLIII.

Abnormal Barometric pressure.

The variations of the monthly mean barometric pressure at five representative stations of the Bombay Presidency are shown by Figs. I to V. These figures, when compared with each other, show that the general character of all the curves is, on the whole, the same. They all rise and fall nearly at the same time, but the magnitude of the variations at the two northerly stations is, as is usual, greater than that at the three southerly ones. The abnormal pressure curves show that the barometer was slightly in excess of the normal in May at Deesa, Bombay, Poona and Belgaum and also in June at Karáchi, Deesa, Bombay and Poona in 1892. In all other months, except December, it appears to have been in defect throughout the whole of the Bombay Presidency. The diagrams show that during the first quarter of the year 1893 pressure remained more or less above the normal at all the five stations. In the month of April, 1892, the most noticeable departure from normal conditions, as shown by the divergence of the curves, was the disproportionate fall of pressure below the normal at the five stations, the decrease being much greater at the two northerly stations than at the three southerly ones. These unusual changes were attributable mainly to the passage of a cyclone, which first originated in the south of the Peninsula and which subsequently, crossing the Peninsula moved northwards as far as latitude 16°, and passing out to sea as far as longitude 60° or 59° E., recurved in a north-easterly direction and struck the Káthiáwár coast.

Winds.

The extent to which the winds were more frequently from the northward or southward than in an average year is shown by Figs. VI to XV. A rise of one of these curves above the zero lines shows an excess in the frequency of north or east winds or a defect in the number of south or west winds, while a fall below the zero showed a smaller number of north or east winds or a greater number of south or west winds than the normal. At Karáchi, the winds were generally north-easterly, except in April, May, June, July, August, September and October, when they were more prevalent from the north-west. At Poona and Bombay, south-easterly winds were observed for the greater part of the year. With regard to the frequency of east and west winds at Belgaum, abnormal easterly winds were reported to have been more frequent in June, July, August and September.

Temperature.

The variations of the temperature of the air are shown in Figs. XVI to XX. These figures show that the temperature was 2° in excess of the average at Karáchi and as much as 7½° in defect in February at the same station. At Deesa, it was again 7½° above the normal in April and from 2½° to 7½° below it in September, 1892, and February, 1893. At Bombay, April and May were very hot, the temperature being from 2° to 4° in excess of the mean, while February, 1893, was the coolest month of the year. At Poona, the hottest month was April, 1892, but from July, 1892, to March, 1893, the atmosphere was unusually cool. At Belgaum, the temperature was abnormally cool throughout the whole year.

Dryness and Vapour Pressure.

The abnormal dryness of the atmosphere is shown by Figs. XXI to XXV. These show that the variations at Deesa and Karáchi were large, while at Bombay it was fairly normal. At Poona and Belgaum, the weather was somewhat dry in April and May, but in all other months of the year it was more or less damp. In Figs. XXVI to XXX are shown the abnormal variations of vapour pressure. These show that vapour pressure was abnormally high at Karáchi and Poona and about normal at Bombay.

Cloud.

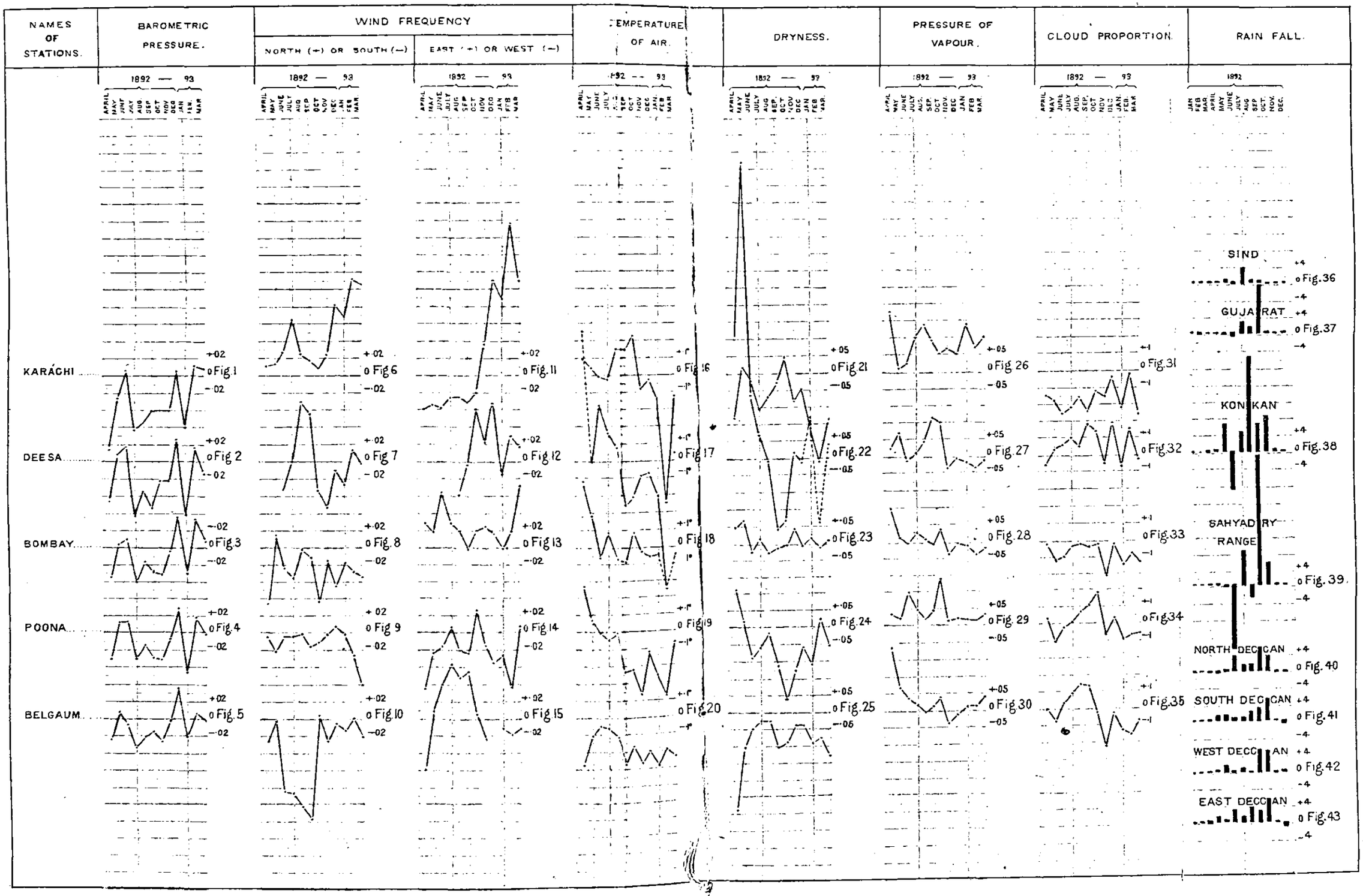
The abnormal amount of cloud at each station is represented by Figs. XXXI to XXXV, which also roughly show the abnormal relative humidity of the upper strata of the atmosphere. These curves show that the variations of cloud proportion at Bombay, Poona and Belgaum were nearly alike, while those at Karáchi and Deesa were of somewhat different character. Fig. XXXII shows that the amount of cloud was in excess of the normal at Deesa in all months of the year except April, November, January and March, when it was slightly less than usual. At Bombay, the extent of clouded sky was less than the average mean throughout the whole year. Figs. XXXIV and XXXV show that at Poona the sky was abnormally cloudy in August, September and October, and at Belgaum in July, August and September.

Rain.

Local variations of the rainfall are so great that the registration of this element at only five meteorological stations cannot be taken as fairly representing the distribution of the rainfall of the whole Presidency. The Presidency has, therefore, been divided into districts over which the rainfall is less variable than over the Presidency at large, and the average

MONTHLY ABNORMAL VARIATIONS OF THE METEOROLOGICAL ELEMENTS IN 1892-93.

Plate 1.



E 662

Drawn & Litho Govt Photozinco Office, Poona 1893

monthly rainfall of a group of stations in each of these districts has been calculated. The results of the actual and normal rainfall are given in tables A and B and the deviations from the normal are given in table C :—

TABLE A.

Showing the Monthly and Annual Rainfall in each Division during the year 1892.

Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Sind	0·17	0·02	0·01	0·01	0·65	0·25	6·13	3·46	1·14	0·07	0·00	0·08	11·99
Gujarát...	0·17	0·01	0·00	0·00	0·06	3·66	13·96	11·66	16·66	0·81	0·00	0·03	47·02
Konkan...	0·00	0·00	0·00	0·79	7·32	22·79	40·14	42·91	18·35	10·96	1·13	0·00	144·40
Sahyádri Range ...	0·00	0·01	0·00	0·47	0·67	19·25	79·59	52·20	47·32	10·35	0·64	0·02	210·51
North Deccan	0·00	0·02	0·00	0·07	0·66	8·16	5·51	5·98	10·32	6·26	0·37	0·01	7·37
South Deccan	0·00	0·00	0·00	2·06	2·92	6·15	7·55	7·05	6·67	9·82	0·72	0·00	43·16
West Deccan	0·00	0·02	0·00	1·24	2·68	7·10	10·94	6·37	9·39	8·49	0·67	0·00	46·92
East Deccan	0·00	0·00	0·00	1·63	1·90	6·89	4·22	7·06	6·07	9·68	0·54	0·00	38·01

TABLE B.

Showing the average Monthly and Annual Rainfall in each Division.

Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Sind	0·37	0·23	0·27	0·10	0·14	0·60	2·78	2·82	0·72	0·12	0·12	0·15	8·42
Gujarát...	0·02	0·21	0·03	0·02	0·38	4·55	11·32	10·14	5·46	0·56	0·15	0·05	32·88
Konkan...	0·56	...	0·08	0·21	1·23	31·77	35·72	20·64	11·77	2·90	0·62	0·09	105·59
Sahyádri Range ...	0·25	0·02	0·22	0·44	1·09	30·98	71·01	54·74	16·29	4·43	0·70	0·14	183·31
North Deccan	0·45	0·05	0·08	0·28	0·54	4·97	4·15	4·26	4·46	2·67	0·65	0·24	22·80
South Deccan	0·16	0·02	0·25	1·00	1·76	5·49	6·64	4·99	3·42	4·15	0·60	0·77	29·25
West Deccan	0·24	0·03	0·14	0·98	1·32	7·12	9·91	6·51	3·82	3·70	0·87	0·32	34·96
East Deccan	0·21	0·04	0·27	0·71	1·60	4·03	2·76	3·50	3·87	3·97	0·44	0·90	22·22

TABLE C.

Comparison of the Monthly and Annual Rainfall of 1892 with the average Rainfall.

Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Sind	− 0·20	− 0·21	− 0·26	− 0·09	+ 0·51	− 0·35	+ 3·35	+ 0·64	+ 0·42	− 0·05	− 0·12	− 0·07	+ 3·57
Gujarát	+ 0·15	− 0·20	− 0·03	− 0·03	− 0·32	− 0·89	+ 2·64	+ 1·52	+11·30	+ 0·25	− 0·15	− 0·02	+14·14
Konkan	− 0·56	0·00	− 0·08	+ 0·58	+ 6·09	− 8·08	+ 4·42	+22·27	+ 6·58	+ 8·06	+ 0·51	− 0·09	+38·81
Sahyádri Range	− 0·25	− 0·01	− 0·22	+ 0·03	− 0·42	−14·78	+ 8·58	− 2·54	+31·03	+ 5·92	− 0·06	− 0·12	+27·20
North Deccan	− 0·45	− 0·03	− 0·08	− 0·21	+ 0·12	+ 3·19	+ 1·36	+ 1·72	+ 5·86	+ 3·59	− 0·28	− 0·23	+14·57
South Deccan	− 0·16	− 0·02	− 0·25	+ 1·06	+ 1·16	+ 0·66	+ 0·91	+ 2·06	+ 3·25	+ 5·67	+ 0·12	− 0·77	+13·91
West Deccan	− 0·24	− 0·01	− 0·14	+ 0·26	+ 1·36	− 0·02	+ 1·03	− 0·14	+ 5·57	+ 4·79	− 0·20	− 0·32	+12·96
East Deccan	− 0·21	− 0·04	− 0·27	+ 0·92	+ 0·30	+ 2·86	+ 1·44	+ 3·56	+ 2·20	+ 5·71	+ 0·10	− 0·90	+15·69

The numbers in the above tables are represented by Figs. XXXVI to XLIII, which show at a glance, by the direction and length of the black vertical lines, whether and to what extent the monthly rainfall of each district was in excess or defect, the lines being drawn upwards to represent an excess and downwards to show a defect. The rainfall of the monsoon months from June to October and also for the whole year is given in the following table in the form of percentages of the average fall :—

Division.	June.	July.	August.	September.	October.	Year.
Sind...	42	220	123	159	61	144
Gujarát	80	124	116	305	145	143
Konkan	72	112	209	156	381	136
Sahyádri Range	56	113	96	291	234	116
North Deccan	164	133	141	231	235	165
South Deccan	112	114	142	195	237	148
West Deccan	99	110	98	246	232	134
East Deccan	171	152	204	157	244	170

In this table 100 means that the rainfall has been equal to the average of many past years; 150 means that it is 50 per cent. above the average; 50 that it has been 50 per cent. below the average; the excess above or defect below 100 indicating by how much per cent. of the average rainfall the fall of the month exceeded or fell short of the normal quantity : for example, in August the Konkan received 109 per cent. in excess of the average rainfall for that month, while the rainfall for June in Gujarát was 20 per cent. less than the average rainfall

of that month in that district. The total percentage rainfall of the year was above the average in all districts.

Storms.

On the 21st of April the isabnormals indicated the existence of a large depression to the east-south-eastwards of Negápatam in the Bay, and the weather appeared to be very unsettled there. On the 22nd the disturbance began to move westwards, but remained nearly stationary up to 8 A.M. on the 23rd. The chart of the 24th showed that it had moved westwards and that its centre was somewhere off the Malabár Coast or to the west of Colombo. By the 25th, the depression had moved northwards and lay somewhere to the west of Ratnágiri. The winds around the disturbance were cyclonic, and strong squally winds were blowing at Calicut. The isobars on the 26th, 27th and 28th showed that the disturbance had moved westwards, and the morning observations of the 29th showed faint indications of its existence far to the west of Ratnágiri or Bombay. On the 30th, the barometer began to fall rapidly all along the West Coast from Mangalore northwards as far as Karáchi, and the isobars indicated unsettled weather conditions off that coast out at sea. On the 1st of May, the isobars as well as isabnormals showed that a large depression of unprecedented intensity was approaching the West Coast between Karáchi and Verával, and its centre appeared to lie off and very near to Porbandar or Dwárka. The baric gradients were very steep on and off the West Coast between Goa and Karáchi, and it appeared probable that strong squally winds would blow on and off the West Coast to the north of Goa and a strong gale with heavy squalls on and off the Káthiáwár coast. On the 2nd of May, this cyclone moved rapidly in a north-easterly direction and its centre lay somewhere in the neighbourhood of Ajmere, on the 3rd the storm advanced into the Punjab and on the 4th it reached the Simla hill districts where it appears to have filled up. The captain of the S. S. *Lucina* wrote from Aden as follows:—"Left Bombay on the 27th of April and experienced fresh southerly winds and a long swell and sea; at 4 A.M. the wind changed to south-south-east and was fresh in force, barometer 29·92" at 9-30 A.M. and sky clear; (noon, latitude 17° 55' N., longitude 66° 54' E.); 29th April, fresh gale and high swell at sea throughout, wind south until 10 P.M. and changed to south-south-east at midnight with lightning to west-north-west, barometer 29·90" at 9-30 A.M.; showery weather and confused sea (noon, latitude 17° 29' N., longitude 64° 04' E.); 30th April, barometer falling rapidly since noon yesterday and wind and sea increasing, sky black a-head, barometer at 4 P.M. 29·80"; 8 P.M. to midnight heavy gale from south and south-south-east with rain, thunder and blue lightning, barometer 29·70" at midnight; after midnight, the wind veered to south-west with a strong to heavy gale and very high sea, weather cleared towards 4 A.M.; the storm passing ahead; 8 A.M., heavy confused sea; noon, barometer rising, cyclonic gale crossed our track curving to northwards." The S. S. *La Seyne* on her way from Karáchi to Bombay experienced a cyclone on the 1st of May in latitude 22° 14' N., longitude about 66° E., where the wind was strong north-easterly to south-easterly and was blowing with a moderate to fresh gale with a very low barometer. The S. S. *Pachumba*, which left Bombay on the 30th of April for Karáchi, encountered a storm and reported having experienced weather as follows:—"Till midnight, light to strong westerly to west-south-westerly winds and cloudy weather; on the 1st of May at 1-30 A.M. the wind shifted to south-west and at 4 A.M. there was a heavy south-westerly swell with lightning to the west; at 5 A.M. the wind and sea began to increase; at 7-40 wind and sea increased rapidly with heavy swell; when within 5 miles of Verával furious squalls of wind and rain; noon, terrific sea and heavy swell; 1 P.M. wind and sea decreased, but a terrific swell was still running; 6 P.M. weather moderated and sea and swell rapidly began to decrease; the lowest uncorrected reading at 9 A.M. on the 1st May was 29·64"." This disturbance while off Ratnágiri on the 25th and 26th caused strong squally winds to blow at Bombay and in its neighbourhood. This storm was most severely felt on the Káthiáwár coast, and its centre passed over Bhúj where the barometer fell from 29·382" at 8 A.M. to 28·426" at 1-38 P.M. on the 1st of May. The wind velocity was more than 100 miles an hour between 10 A.M. and 1-30 P.M. The loss sustained on the Káthiáwár coast was very great. From a letter from the Political Agent, Cutch, it appears that in the whole of Cutch, 38 persons were killed and 141 were wounded. About 98,000 houses were damaged, 30 boats were destroyed and 22 others were injured. One hundred and twenty-six thousand trees were uprooted and about 500,000 were much injured. Fodder and grass to the value of Rs. 93,000 was lost, and about Rs. 2,00,000 worth of damage was done to goods. Crops suffered to the value of a lákh, and the total amount of the value of the loss occasioned in the province was estimated at Rs. 12,60,000.

On the 7th, 8th and 9th of May the weather chart indicated the existence of a depression off the West Coast in the Arabian Sea, and the weather was very unsettled there. The S. S. *Wardha* reported having experienced from about latitude 10° N., longitude 76° E., at midnight on the 6th, to about latitude 13° N., longitude 74½° E., at midnight on the 7th, strong squalls of wind sometimes accompanied by heavy rain, thunder and lightning.

On the 13th and 14th of May the weather conditions appeared to be very unsettled off the Coromandel Coast, and strong squally winds were probably blowing there. The S.S. *Gladestry* reported that from about latitude 8° 21' N., longitude 84° 52' E., at noon on the 13th, to about latitude 6° N., longitude 81° E., at midnight on the 14th, she had strong winds with a moderate gale, overcast sky and heavy cross sea.

On the 28th of May an extremely small area of abnormally low pressure began to form on and off the West Coast between Bombay and Mangalore, and the weather conditions

became slightly suspicious. On the 29th the depression grew slightly deeper, and the winds at Kárwár and Goa became cyclonic. On the 28th, the rainfall at Kárwár was very heavy and on the 29th there appeared every prospect of the depression growing deeper. The abnormal chart, prepared from observations taken at 8 A.M. on the 30th, showed that the depression had grown very much deeper, and that its centre was in about longitude 71° E. and latitude 16° or 17° N., the abnormal deficiency at the centre being now a tenth. To the south of the depression, on the coast, the rain was falling heavily, and it appeared probable that the depression would grow still deeper. All these anticipations turned out to be true, and the depression off Ratnágiri had grown very deep on the 31st, and the deficiency at the centre of the depression had become as much as two-tenths. The sea at Ratnágiri, Goa, Kárwár and Mangalore was rough and rising, and the baric gradients between Goa and Cochin were very steep, and high wind velocities accompanied by heavy rain seemed likely on and off that coast. On this day the storm showed a tendency to move northwards. On the following day (the 1st of June) the storm grew a little more deep, and its centre was now off Bombay in longitude 72½° E. and between latitude 18° and 19° N. The winds were now distinctly cyclonic and the disturbance showed a tendency to move in a west-north-westerly direction into the Arabian Sea. On the 2nd, the chart showed that the storm centre had now moved out to sea and appeared to be in about latitude 21° N., longitude 66° or 67° E. On the 3rd, the storm centre appeared to lie in about latitude 20°, or 21° N. and longitude 62° or 63° E., and on the following day it appeared to have moved beyond longitude 60° E. The ship *Columbia* had from latitude 9° N., longitude 63° E., a steady gale from the south-west, cloudy weather and a high sea, up to about latitude 13° N., longitude 67° E., at midnight on the 29th of May. From about midnight on the 29th to the 30th of May she encountered a gale of hurricane force with heavy rain and terrific squalls, causing the vessel to roll very heavily and to ship large quantities of water. On the 31st of May and also on the 1st and 2nd of June, or up to about latitude 15° N., longitude 69° E., at noon on the 2nd, she experienced a steady gale and high sea. From noon on the 2nd the gale moderated, and the weather became clear.

On the 1st of June, when the centre of the disturbance was near Bombay, the wind began to increase in force at about 9 A.M., and was from 25 to 33 miles an hour up to about 1 P.M., after which, up to about 9 P.M., it ranged from 36 to 49 miles an hour. From this time, the winds began to slightly decrease in force, and the velocity was from 20 to 34 miles an hour on the 2nd of June, or up to 6 A.M. on the 3rd.

The most important feature shown by the weather chart on the 23rd of June was the formation of a small depression off the Malabár Coast, and the weather appeared to be squally and very unsettled there. On the 24th, the depression grew deeper, and there were indications of a strong monsoon to the south-westwards of Cochin in the Arabian Sea. On the 25th, the depression remained nearly stationary, but on the morning of the following day it appeared to be slowly approaching the West Coast in the extreme south. On the 27th, it showed a slight tendency to fill up, but on the 28th it became distinct and grew moderately deeper; on the 29th, however, the depression disappeared. The observation of the 30th showed an accelerated fall in the barometer, and the isabnormals again pointed to the existence of a disturbance to the south-south-westwards of Cochin. This depression moved eastwards on the 1st of July, and was over Ceylon on that date. On the 2nd, it remained nearly stationary, but showed a tendency to move northwards along the West Coast. Up to the 4th, the depression off the South Coromandel Coast remained stationary, while that off the West Coast diminished in intensity and became elongated. On the 5th, the chart showed that the depression off Negápatam was still stationary, while the one on the West Coast had again grown deeper. On the 6th, the weather off Negápatam was much the same as on the previous day, but the depression off the West Coast was still deeper. On the 7th, baric gradients were very steep in the extreme south, but the depression off Negápatam had disappeared, while that off the West Coast had moved northwards into the neighbourhood of Bombay, its centre being in latitude 18°30′N., longitude 71°E. On the 8th of July, this small storm moved still further northwards, and its centre now lay in about latitude 22°N., longitude 69° 30′E. The winds around the depression were cyclonic, and a strong gale with heavy squalls was blowing. On the 9th, it diminished in intensity and the centre appeared to lie to the westwards of Dwárka out at sea. On the 10th, it remained nearly stationary, and at 8 A.M. on the 11th it was over Gujarát, and on and off the North Konkan, Káthiáwár, Cutch and Sind coasts. On the 12th, this depression concentrated, and was over Gujarát and the adjoining seas. The baric gradients were very steep, and as the winds were cyclonic, high wind velocities with heavy squalls of wind and rain were predicted there. On the 13th, it moved northwards, and was central over Cutch and a portion of Sind. The charts of the 14th, 15th and 16th showed that it had passed in a north-westerly direction through Sind. During the whole of this period, an exceptionally strong monsoon was blowing on and off the West Coast, more particularly from the 6th to the 14th of July.

The charts of the 6th, 7th and 8th of June showed the existence of a depression to the eastwards of the Coromandel Coast. By the morning of the 9th, it appeared to the north-eastwards of Secunderábád, and on the 10th it became very distinct and appeared to the eastwards of Ráipur. The observations of the 11th showed that it had moved northwards and on the morning of the 12th it was in the neighbourhood of Allahábád. This disturbance disappeared on the 13th.

The abnormal chart of the 20th of August pointed to the existence of a low pressure area near to and off Negápatam in the Bay, and strong winds accompanied by heavy rain appeared to be blowing there. On the 21st it appeared to the north-eastwards of Madras and disappeared on the 22nd.

On the 30th of August the abnormal chart indicated a small depression in the neighbourhood of Secunderabád and Masulipatam. The chart prepared on the morning of the 31st showed that the disturbance had moved northwards and was in the neighbourhood of Ráipur. The observations at 8 A.M. on the 1st of September indicated that a storm of considerable intensity was approaching the Central Provinces and that its centre was near Ráipur. The winds were cyclonic, and as the baric gradients were very steep, strong winds accompanied by heavy rain were predicted. This disturbance showed a tendency to move slowly westwards and appeared to threaten Gujarát with floods. By 8 A.M. on the 2nd, the cyclonic storm had moved westwards and was central over Hoshangabád. On this day the disturbance showed a well-marked tendency to move westwards, and warning of floods in Gujarát was again issued on the 2nd; on the 3rd, its centre lay between Indore and Nágpur, and the abnormal deficiency at the centre of the depression was two-tenths. On the 4th, the storm slightly intensified and was near Indore. On the 5th, the centre was between Deesa and Neemuch, and a moderate to strong gale with heavy rain was blowing over nearly the whole country lying to the north of latitude 15°. On this day heavy rain at Deesa and Mount Abu and further floods in Gujarát were predicted. On the following day the storm was central over Deesa, and the baric gradients continued to be very steep to the north of latitude 19°. Telegrams received on the 6th fully realized the anticipations of heavy rain, and Deesa reported about 6 inches and Mount Abu 16 inches. On the 7th, the storm moved into the neighbourhood of Ajmere, but had decreased considerably in intensity. The chart of 8 A.M. observations on the 8th showed that the centre was still near Ajmere and that the storm appeared likely to take a north-easterly course and to fill up. This depression was the cause of severe floods along the B. B. & C. I. Railway line and much damage was done to crops and property.

Abnormal charts of the 7th and 8th of September showed a depression to the eastwards of Madras which on the 9th became very distinct, and strong squally winds with heavy rain appeared to be blowing off the Coromandel Coast. This disturbance moved northwards on the 10th and lay somewhere to the south-eastwards of Ráipur. On the 11th, the centre moved into the vicinity of Jubulpore and on the 12th westwards to near Indore.

The isobars indicated on the morning of the 15th of October a small area of low pressure off the South Coromandel Coast where the weather appeared to be very unsettled. On the 16th, this area grew deeper and was now a large depression to the eastwards of Madras in the Bay. This disturbance showed a tendency to move westwards and seemed to be slowly approaching the Coromandel Coast. On the morning of the 17th, the centre of the depression was near to and off Madras in the Bay and it seemed likely that a strong gale accompanied by heavy rain was blowing there. On the 18th, the storm moved, as anticipated, rapidly westwards into the neighbourhood of Bombay and Ratnágiri. On the 19th, the centre of the depression moved further westwards to about latitude 29°N., longitude 69°E.

Another disturbance was shown by isabnormals on the 19th of October to exist in the Bay, and it approached the North Coromandel Coast near Masulipatam on the 20th. This storm was of very great intensity, and a severe gale accompanied by heavy rain was blowing at Masulipatam and in its neighbourhood. The abnormal deficiency at the centre of the depression was as much as four-tenths. On the morning of the 21st, the centre moved inland into the neighbourhood of Secunderabád, but the storm had decreased much in intensity, and on the 22nd the disturbance became shallower still and was of little or no importance.

Again, on the 27th of October, the isobars indicated unsettled weather conditions in the Bay and the probable formation of a depression there. The observations at 8 A.M. on the 28th showed a depression to the eastwards of Madras or to the south-eastwards of Masulipatam, and fresh to strong squally winds accompanied by thunder and lightning and heavy rain seemed likely. On the 29th, the centre of the disturbance was somewhere between Cuddapah and Masulipatam, and showed a tendency to move westwards. On the following day, the storm was near Secunderabád; on the 31st it appeared as a small area of low pressure on the North Konkan coast. These three depressions in October caused floods in several places in the Bombay Presidency, and crops suffered a good deal from the unusual and heavy rain.

On the 11th of December, a small disturbance was detected to the south-eastwards of Negápatam and off Colombo in the Bay.

On the 19th of December, the weather to the westwards of Sind appeared to be very unsettled, and a depression appeared to be in the course of formation there.

On the 29th of December, abnormals showed a depression over Sind, and the weather there and in Gujarát was very unsettled. On the 30th, this depression moved into the neighbourhood of Ajmere, and the morning observations of the 31st showed that it had disappeared. This disturbance gave rain in Sind, Gujarát and Rájputána.

The chart prepared on the morning of the 12th of January showed a large depression to the west-north-westwards of Sind, and a strong gale accompanied by rain appeared to be blowing in the Persian Gulf. On the 13th, the depression grew deeper and appeared to be advancing towards Sind and Rájputána. This disturbance moved eastwards and was last observed as a low pressure area to the north of latitude 23° on the 14th, 15th and 16th.

On the 22nd of January, abnormals indicated a low pressure area to the west-north-westwards of Sind, and the weather was very unsettled in the Persian Gulf. On the 23rd and 24th, the observations showed that a large depression existed to the west-north-westwards of Jacobabád, and that a strong to whole gale accompanied by rain was probably blowing in the Persian Gulf. The S. S. *Assyria* on the 23rd from about latitude 24° 50′ N., longitude 64° 46′ E., at noon on the 23rd, to about her arrival at 7-50 A.M. at Karáchi on the 24th had to encounter a moderate gale and a high sea.

On the 27th of January, a depression appeared to the westwards of Sind which on the 28th moved eastwards and lay a little to the west of Ajmere. This disturbance moved further eastwards on the 29th.

On the 4th of February, abnormals showed that a large depression existed to the west-north-westwards of Karáchi, and that a moderate to strong gale accompanied by rain was probable in the Persian Gulf. On the 5th, it advanced eastwards and was observed as a shallow depression over Lower Sind. At 8 A.M. on the 7th, it was near Ráipur and appears to have moved further eastwards on the following day.

The chart prepared on the 11th of February showed unsettled weather conditions in the Gulf, and on the 12th a small depression appeared in the neighbourhood of Deesa. On the 13th, it moved further eastwards into Rájputána and Central India, and appeared to have moved south-eastwards on the following day.

On the 15th of February, the chart showed that a disturbance existed to the west-south-westwards of Sind, and that strong squally winds accompanied by rain were probably blowing there. The S. S. *Assyria* left Linga at about 1-20 P.M. on the 14th and having experienced a moderate to whole gale was compelled to put back. At 6 A.M. on the 15th she again left Linga, and to about latitude 26° N., longitude 52½° E., at midnight on the 15th she again got into bad weather and had to encounter a moderate to strong gale and a high sea.

On the 18th, 19th and 20th, the weather was more or less disturbed to the west-north-westwards of Sind, and the chart of the 21st of February showed a distinct depression, and that strong winds accompanied by rain were blowing to the west of Sind in the Gulf. The morning weather chart of the 22nd indicated that the depression had advanced eastwards and was now a large low pressure area over Lower Sind, Rájputána and the Punjáb. This low pressure area disappeared on the 23rd, but the isobars as well as isabnormals showed that a fresh depression had formed to the west-north-westwards of Sind, and that a strong gale accompanied by rain was probably blowing in the Persian Gulf. On the 24th, the observations showed a rapid rise of barometer, and the disturbance seems to have disappeared.

On the 15th of March, the isobars showed that a disturbance existed to the west-north-westwards of Sind, and that strong squally winds accompanied by rain were probably blowing in the Persian Gulf. On the 16th, the centre was somewhere in the neighbourhood of Jacobabád. On the 17th, it moved eastwards but had then become a large low pressure area overlying Sind and Rájputána. On the 18th, this low pressure area concentrated and was now a small depression in the neighbourhood of Neemuch. This small disturbance moved eastwards on the 19th, 20th and 21st, and gave local showers over the greater part of the country.

On the 25th of March, the weather to the west-north-westwards of Sind became unsettled, and on the 26th a large depression appeared near Jacobabád. This disturbance travelled eastwards and was in the immediate neighbourhood of Delhi on the 27th, after which date it disappeared from the field of observation.

On account of these disturbances, the winter rainfall in Sind, Rájputána, Gujarát, Berár, the Central and North-West Provinces, the Punjáb and Central India was above the average.

COLÁBA OBSERVATORY.

Grounds and Buildings.

The grounds and buildings of the Observatory remained generally in the same satisfactory condition as last year, necessary repairs having been effected and the lightning conductors having been tested by the Public Works Department.

As a special work ventilating pipes were let into the walls of the computing room at top and bottom, greatly reducing the oppressiveness of the heat in the hot weather, and yielding fresh currents of air at all times. During the past winter the site in the Observatory grounds of the longitude signalling station of the great Trigonometrical Survey of India was again called into request—this time for the determination of the latitude of the station: a pillar was erected for the support of the Zenith telescope and was removed after the observations had been completed, its foundation being left in the ground in case it should be required again at some future time.

Instruments.

The autographic instruments which were maintained in continuous action were the Declination Magnetograph, Horizontal Force Magnetograph, Vertical Force Magnetograph,

Barograph, Thermograph (dry-bulb and wet-bulb), Pluviograph, and Anemograph (direction and velocity). Of these, the first six register photographically and the last mechanically; they were all in good order and worked well during the year. Deflection experiments of the usual kind for the determination of the scale co-efficient were made upon the horizontal vertical force magnetographs; and corresponding deflections were made by the same deflector magnet upon a magnet appropriately suspended over the spot where the regular absolute magnetical observations were taken. Similar experiments on a smaller scale were made also every month upon the vertical force magnetograph as in former years. The large declination and horizontal force magnetometers were in good order and under regular observation. The Kew unifilar magnetometer was in good order and in regular use for the determination of absolute declination and horizontal force, and with the Kew dip circle fairly consistent values of the dip were yielded by each of four needles as in the preceding year. The large transit instrument, its collimator and the standard sidereal clock remained in good order throughout the year. The electrical clock went well throughout the year, despite the fact that while it was being cleaned, the jewel of one of the bearings of the escapement was broken. The harbour clock however was subject to irregularities. The number of chronometers belonging to Government received during the year was 44 including 17 in charge at the beginning of the year, and the corresponding number of those belonging to ship captains was 45. Seventy-eight were issued. Of chronometers belonging to the Admiralty eight were during the year received from and twelve issued to ships of the Royal Navy, and ten were received from and eight sent to the Astronomer Royal at Greenwich; at the end of the year the number in store was two.

Work.

The usual routine operations were carried on during the year, and the weather reports were sent regularly to the same newspapers and officials as in previous years. The waxing of photographic paper for the magnetographs and meteorographs continued to be satisfactorily carried out on the Observatory premises, but a new difficulty arose in procuring plain paper of high quality; for the manufacturers had ceased to make the particular kind of paper that had hitherto answered so well, and the substitutes so far tried failed to yield clean pictures. More samples were obtained and were being tried.

WEATHER AT BOMBAY.

Rainfall

The monsoon rains of 1892 began on the 2nd June and ended on the 1st October, yielding an aggregate fall of 93·04 inches, or an excess of 25·95 inches over the average fall of that interval; but the nine days from August 26th to September 3rd yielded by themselves an excess of 29·06 inches, leaving for the rest of the period a rainfall 3·11 inches in defect of the average: thus with the exception of those nine days the rains of the monsoon were nearly of the normal character, and the alternations of periods of heavy and light rainfall were, as will be seen from the following statement, as frequent as in a normal year:—

Period.	Number of days.	Rainfall in period.	Excess above average.	Defect below average.
		Inches.	Inches.	Inches.
1892, June 2nd to 5th	4	0·67	.....	0·42
„ June 6th to 8th	3	4·70	3·38	.....
„ June 9th to 21st	13	2·22	.....	9·68
„ June 22nd and 23rd	2	4·64	2·92	.....
„ June 24th to July 6th	13	2·41	.....	6·20
„ July 7th to 11th	5	10·77	7·85	.....
„ July 12th to 16th	5	1·08	.....	4·72
„ July 17th	1	2·18	1·04	.....
„ July 18th to 27th	10	2·15	.....	5·20
„ July 28th and 29th	2	5·77	4·21	.....
„ July 30th and 31st	2	0·57	.....	0·71
„ August 1st	1	1·21	0·64	.....
„ August 2nd to 6th	5	0·84	.....	1·40
„ August 7th to 18th	12	13·68	8·29	.....
„ August 19th to 25th	7	0·17	.....	2·35
„ August 26th to September 3rd ...	9	32·19	29·06	.....
„ September 4th to 16th	13	1·88	.....	2·80
„ September 17th to 19th	3	3·64	2·40	.....
„ September 20th and 21st	2	0·18	.....	0·57
„ September 22nd to 24th	3	1·47	0·96	.....
„ September 25th to 30th	6	0·03	.....	1·22
„ October 1st	1	0·59	0·47	.....

Of days of heavy rainfall there were in the year fourteen, giving falls of 1 to 2 inches, eight of 2 to 3 inches, four of 3 to 4 inches and two each of 4 to 5 and 5 to 6 inches. The total rainfall of the year 1892-93 was 95·26 inches, being made up of the 93·04 inches of monsoon rains, of light casual falls on the 1st May, 18th October and 22nd and 24th February aggregating 0·27 inch, and of heavier casual falls of 1·28 inches from 21st to 24th October and 0·67 inch on the 1st November. The number of rainy days in the year was 116 or 14 more than the average.

Temperature.

The mean temperature of the year was 79·1° or 0·1° below the normal. All the periods in which there were excursions of more than 2° above or below the normal tempe-

Forests.

General.

During the year under report the old Northern Circle was divided into two separate circles, Northern and Central, corresponding with the Revenue Divisions in charge of Commissioners. The Conservator of Forests, N.C. (old), retained charge of the Central Circle and a senior Deputy Conservator was placed in independent charge of the new Northern Circle. The marginally noted districts are comprised in this circle, out of which Thána, Panch Mahále and Surat with the Dángs contain forest tracts, and consequently these three districts really form the new Northern Circle.

1 Thána.
2 Surat.
3 Broach.
4 Kaira.
5 Panch Mahále.
6 Ahmedábád.
7 Dángs.

The Government of India having ordered that the forest year should in future correspond with the revenue year, the figures throughout this summary cover a period of 15 months from 1st April 1892 to 30th June 1893. Those for the previous year 1891-92 are for 12 months (April 1st to March 31st) only.

Northern Circle: Area.

The changes affecting the forest areas of the Northern Circle during the period under report are exhibited in the following statement:—

Division.	Area on 1st April 1892.				Added during the year.				Disforested or excluded by notification of areas.				Area on 30th June 1893.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected	
	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.
East Thána	261	565	327	412	...	...	...	...	...	233	2	53	261	332	325	3 9
West Thána	405	410	273	614	...	...	...	...	...	...	...	...	405	410	273	614
Surat	68	153	...	...	...	229	...	...	...	...	...	...	68	382	...	...
Panch Mahále	197	316	...	...	21	455	...	...	...	135	...	...	218	636	...	...
Total ...	933	164	601	386	22	44	...	...	...	368	2	53	954	480	599	333

The total of both reserved and protected forest area at the commencement of the year was 1,535 square miles, and at its close 1,554 square miles showing a net increase of 19 square miles. If the area of the Dángs 678 square miles be added to the above, the total area under the management of the Northern Circle amounted to 2,232 square miles. Draft notifications under section 4 of the Forest Act were issued with regard to 136 square miles of waste land, and inquiries as to settlement were in progress at the close of the year.

ndaries.

During the period under report 4,393 cairns were erected as special boundary marks at a cost of Rs. 4,802. The length of the forest boundary on which cairns were erected was 534 miles.

Forest demarcation

The demarcation of forests was completed in the Panch Mahále and Surat Divisions including the Dángs. In the Thána Districts these operations were nearing completion, the work having progressed fairly in all the tálukas as will be seen from the details shown in the following statement:—

Division.	Number of Tálukas.	In which demarcation is completed and sanctioned.	In which demarcation not completed.	In which demarcation not undertaken.	Remarks.
East Thána	4	2	2	1	
West Thána	5	3	2	...	
Surat	8	5	...	*3	* There are no forest in these tálukas.
Panch Mahále	3	3	...	...	
Total ...	20	13	4	4	

Privileges conceded to villagers.

No new privileges were conceded during the year to the people of any collectorates. The concessions, already granted, continued unrestrained.

Working Plans

The work performed by the Working Plans Divisional Forest Officer was entirely confined to the two Thána Divisions of the Northern Circle. Three hundred and seventeen compartments were actually laid out on the ground by the erection of 991 cairns and 26,539 stones; an area of 17,027 acres was thus covered at a cost of Rs. 1,403 or Rs. 4-6-10 per compartment or Re. 0-1-4 per acre. Preparation of working plans of the Bassein and Bhiwndi forests was also undertaken.

Forest Survey.

The operations of the Forest Survey party of the Government of India were carried on during 1892-93 in the Bassein and Váda Tálukas of the West Thána and Bhiwndi of

the East Thána Divisions, and the outturn and cost of the work performed is given in the following statement :—

Division.	Táluka.	Triangulation.		Topographical Survey.		Total cost.	Remarks.
		Amount in square miles	Cost.	Amount in square miles.	Cost.		
			Rs. a. p.		Rs. a. p.	Rs. a. p.	
East Thána ...	Bhiwndi ...	...	.....	1·29	3,212 0 0	3,212 0 0	
West Thána ...	Bassein	...	.....	13·24	5,177 0 0	5,177 0 0	
	Váda	105	1,265 0 0	...	.....	1,265 0 0	
	Total ...	105	1,265 0 0	14·53	8,389 0 0	9,654 0 0	

Staff and office establishment.

The numerical strength and constitution of the subordinate staff and office establishment remained unchanged; their actual cost of their maintenance amounting to Rs. 1,89,191.

Forest offences.

The number of forest offences for which prosecutions were instituted during the year, including cases pending from the previous year, was 289 against 364 in 1891-92. Out of these 289 cases, 232 involving 617 persons were disposed of and 57 cases remained pending at the close of the year. Out of the 232 cases convictions were obtained in 170 or 73·1 per cent. against 80·9 per cent. of convictions in the year before. In addition 414 cases were compounded under section 67 of the Forest Act against 502 in the year 1891-92; and the sums realised from the compositions amounted to Rs. 1,025 against Rs. 1,147 in the previous year. The number of cattle of different kinds impounded during the year for trespassing in closed portions of forest reserves and for grazing in open areas without permits was 6,277 against 4,656 in the preceding year.

Forest fires.

The total area over which protection from fire was attempted was 1,502,391 acres, of which 462,911 acres or 30 per cent. were traversed by fire. The large percentage was solely due to the fact that the whole of the Dángs forests (measuring 433,920 acres out of the total area of 1,502,391 acres under the Northern Circle) were burnt.

Plantations.

The progress of re-production, both natural and artificial, was on the whole fairly satisfactory. Four hundred and thirty-eight acres were added to the area of regular plantations, and 2,413 acres to that of cultural operations, thus increasing the area under plantations from 32,257 acres to 35,108 acres. The total expenditure upon plantations during the year was Rs. 1,747.

Communication and buildings.

Two roads through Medwan and Naniwli Khinds in the West Thána Division were constructed by the Public Works Department during 1892-93 at a cost of Rs. 12,285. A cart tract about 8 miles in length was made departmentally in the Dángs at a cost of Rs. 403. Six forest depôts were built in the Thána District by the Public Works Department at a cost of Rs. 6,769, and a rest-house at Maheskatri in the Dángs was commenced during the year, but was not completed. Besides these works, annual repairs were made to forest guards' huts in the circle, and forest roads in the Dángs. The total expenditure incurred by the Public Works and Forest Departments under the head "Communications and buildings" was Rs. 22,847.

Free grants of timber.

Free grants of timber to the value of Rs. 1,860 were made during the year in the Northern Circle against Rs. 1,202 in the previous year.

Financial results: Yield of forest.

In the following statement the financial results of the years 1891-92 and 1892-93 are compared :—

Year.	Receipts.	Expenditure.			Surplus.
		A. Conservancy and Works.	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92	6,14,271	93,399	1,30,090	2,23,489	3,90,782
1892-93	6,82,884	1,38,639	1,96,486	3,35,125	3,47,759
Increase ...	68,613	45,240	66,396	1,11,636	.....
Decrease ...	.....	.....	.....	.....	43,023

The results under receipts were favourable on account of successful sales of timber and firewood in all the divisions of the Northern Circle. The increase in expenditure under head "A" was mainly due to the purchase of lands for the Tánsa catchment area and under head "B" to payment of salaries to the Working Plans Officer and Deputy Conservator of Forests, Northern Circle, and their establishments, the charges under the latter head having been adjusted in the accounts of the Central Circle in the previous year.

Central Circle: Area.

The areas of Reserved and Protected forests of the Central Circle at the beginning and end of the year, together with the additions thereto and exclusions therefrom during the year, are exhibited in the statement given below :—

Division.	Area on 1st April 1892.				Added during the year.				Excluded during the year.				Area on 30th June 1893.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.	
	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.
East Khándesh	791	135	...	...	6	348	...	...	1	328	...	...	796	155	...	...
West Khándesh	1,102	495	177	435	3	275	...	...	3	316	...	...	1,102	454	177	435
Násik	1,279	579	...	...	...	194	...	...	...	4	...	...	1,279	129	...	...
Ahmednagar	833	540	11	297	...	521	...	...	...	116	...	173	834	311	11	124
Poona	743	222	...	...	...	...	...	...	1	634	...	...	741	228	...	...
Sátára	684	205	1	8	9	254	...	...	1	613	...	4	691	486	1	4
Sholápur	277	343	...	...	...	272	...	...	...	2	...	...	277	613	...	...
Total ...	5,711	605	190	100	20	584	...	...	9	93	...	177	5,723	456	189	563

The total forest area at the commencement of the year was 5,902 square miles and 65 acres, composed of 5,711 square miles and 605 acres of reserved, and 190 square miles and 100 acres of protected forests. To this 20 square miles and 584 acres of reserved forests were added under section 19 of the Forest Act, and 9 square miles and 93 acres were disforested under section 26 of the said Act. No additions were made to the area of the protected forests, but on the other hand 177 acres were excluded during the year. Thus the total forest area at the close of the year amounted to 5,913 square miles and 379 acres, showing a net increase of 11 square miles and 314 acres. In addition to this, 424 square miles and 56 acres of forest and waste lands, provisionally notified under sections 4 and 28, were undergoing settlement at the end of the year.

Boundaries.

The number of cairns erected during the year to serve as special forest boundary marks, was 28,193 against 26,391 in the year preceding; and their cost was Rs. 9,874 against Rs. 10,008 in 1891-92. The length of forest boundary lines on which cairns were erected was 1,730 miles.

Forest demarcation.

No demarcation work, *i.e.*, selection of forest areas for reservation, remained to be undertaken in any of the divisions of the Central Circle.

Privileges conceded to villagers.

No change was made during the year in the concessions already granted to the people of the different divisions of the Central Circle in the matter of forest privileges. Government however directed that the collection and sale of articles of minor forest produce should be left free and unrestricted save articles for which a trade demand exists, or for which there is a reasonable probability that such demand may in time be created, and articles such as catechu, the collection or manufacture of which it is necessary in the interests of forest conservancy to keep under effective control.

Working Plans.

The Working Plans division of the old Northern Circle with its accounts was transferred under orders of Government to the new Northern Circle, and consequently no mention of that division need be made here.

Forest survey.

The Forest Survey Party of the Government of India carried on their operations during the year in the divisions of Poona and Sholápur only, and completed the following programme of work at a cost of Rs. 31,082 :—

Division.	Scale. 4" Triangulation, square miles.	8" Topography, square miles.	16" Topography, square miles.	Remarks.
Poona	230	.....	.....	Junnar 80 and Haveli 150.
Do.	.....	109	.....	Junnar 96·75 and Haveli 12·25.
Do.	.....	.....	15·50	Indápur 9, Khed 3·35, Bhimthadi 2·97 and Máwal ·18.
Sholápur...	.....	.....	6	Karmála.
Total ...	230	109	21·50	

Staff and Office Establishment.

The scheme for reorganising the Superior Forest Service, sanctioned by Her Majesty's Secretary of State for India last year, was brought into effect from 1st April 1892. Proposals for reorganising the Subordinate Protective and office establishments of the Forest Department, Bombay, were still under the consideration of Government, and consequently no changes occurred in the numerical strength and constitution of these establishments. The total expenditure incurred upon forest establishments during the year amounted to Rs. 4,08,220 against Rs. 3,22,142 in the year preceding.

Forest offences.

The number of prosecutions instituted for forest offences during the year, including cases pending from last year, was 1,525 against 1,011 in the year before. Out of these 1,525 cases, 1,402, involving 3,703 persons, were disposed of by Magistrates, leaving 123 cases awaiting trial at the close of the year. Of the 1,402 cases disposed of, convictions were obtained in 1,009 cases or 71·9 per cent. against 76·2 per cent. of convictions in the year preceding. In addition to this, 11,577 cases were compounded under section 67 of the Indian Forest Act against 12,749 during 1891-92, and the sums of money accepted from the forest offenders by way of compensation for their respective offences amounted to Rs. 27,019 against Rs. 29,267 in the year before. The number of cattle of different kinds impounded during the year for trespassing in closed portions of forest reservations, and for grazing in open forests without passes, numbered 381,459 against 334,640 in the previous year. The divisions in which the largest numbers were impounded were Ahmednagar (125,624), Násik (63,822) and Poona (61,153). Of the cattle impounded the larger part were sheep and goats.

Forest fires.

The total forest area in charge of the Forest Department for protection against fire during the year comprised 4,052,200 acres, of which 356,773 acres or 8·8 per cent. were traversed by fire against 689,793 or 17·02 per cent. in the year preceding, and 3,695,427 acres were successfully protected against fires. Fire conservancy received very close and considerable attention, and the results of the year were on the whole very satisfactory.

Plantations.

Natural reproduction was fairly good in the Sátpudas and elsewhere in the East and West Khándesh divisions, the season being an unusually wet one. Cultural operations were also undertaken as usual. In the Násik division bábul and other seeds were sown on a large scale in the reserves on the plains. In the divisions of Ahmednagar, Poona, Sátára and Sholápur planting operations were carried on as usual, the areas in the champaign country being ploughed in furrows or pitted over for the reception of different kinds of seeds, and in portions seeds were dibbled into the ground. The results were generally satisfactory. The areas of regular plantations and cultural operations added during the year to the areas already existing were 2,144 and 93,148 acres respectively, and the total expenditure upon plantations was Rs. 14,210 against Rs. 6,686 in the year before.

Communications and Buildings.

The progress made by the Public Works Department during the year towards the construction of new roads which will serve for the exploitation of timber, &c., from forests and in the building of new depôt houses and Range Forest Offices in the several divisions of the Central Circle was considerable. The road from Ghoda to Ambegaon in the Poona district, referred to last year, was completed during the year, the total cost on its account amounting to Rs. 52,402. In the Násik district the Haste-Barke road was under construction, the expenditure up to the end of 1892-93 amounting to Rs. 17,992 against the estimate of Rs. 25,510. In the Ahmednagar division roads from Randha to Samrad and from Jamgaon to Kotul were in progress. The road from Warsa to Waghai in the Dángs, commenced last year in the Khándesh district, was under construction and the actual work done amounted to Rs. 5,164. No new roads were constructed in the divisions of Sátára and Sholápur during the year. Grants to the extent of Rs. 1,431 were made from the discretionary allowance placed at the disposal of the Conservator towards additions and improvements to Range Forest offices, depôt houses, &c. The total expenditure charged to forests under "Communications and Buildings" on account of construction and repairs to forest guards' huts and depôt houses, &c., in the several divisions of the Central Circle, amounted to Rs. 2,213 against Rs. 1,749 in the year before.

Free grants of timber.

Free grants of timber to the extent of Rs. 1,496 were made during the year in the several divisions of the Central Circle against Rs. 1,949 in the previous year. The only division in which grants above Rs. 500 in value were made was Poona (Rs. 628); in three other divisions, *viz.*, West Khándesh, Násik and Sátára, the value of grants was less than Rs. 500, while in the divisions of East Khándesh, Ahmednagar and Sholápur no free grants were made at all.

Financial results: Yield of forest.

The financial results of the year, as compared with those of the preceding year, are exhibited in the following statement:—

Year.	Receipts.	Expenditure.			Surplus.
		A. Conservancy and Works.	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92	7,48,154	1,32,453	3,42,224	4,74,677	2,73,477
1892-93	8,23,495	1,60,625	4,27,367	5,87,992	2,35,503
Increase ...	75,341	28,172	85,143	1,13,315	.....
Decrease ...	.....	.....	.....	.....	37,974

The revenue of the year on the whole exceeded that of the preceding year by Rs. 75,341, while the total expenditure exhibited an increase of Rs. 1,13,315 over the figures of past

year. In connection with this increase it should be noted that the figures for the year under report represent the results of 15 months, and consequently the average expenditure during the three months of April, May and June 1893, which was incurred, without corresponding revenue having been credited during the same period, increased expenditure to a greater extent. Comparing the results of 12 months only, it appears that there was an increase of Rs. 3,633 in receipts, and of Rs. 7,802 in expenditure, made up of Rs. 5,580 under A. Conservancy and Works, and Rs. 2,222 under B. Establishments, the former being due to felling operations having been undertaken on a larger scale in some divisions, while the latter generally to the increased rates of salaries drawn by Forest Officers under the reorganization scheme sanctioned by the Secretary of State for India, and given effect to from 1st April 1892. The receipts from grass and grazing amounting to Rs. 3,92,140 showed a small decrease over the figures of the year preceding, which amounted to Rs. 4,09,628. This decrease was due to a smaller demand for grass and grazing from Government forests owing to abundance of grass outside the forests. The revenue from the sale of timber and firewood amounted to Rs. 1,96,770 and Rs. 89,803 respectively, against Rs. 1,58,448 and Rs. 67,947 in the year before, thus showing a net increase of Rs. 38,322 and Rs. 21,856, which more than counterbalanced the excess in expenditure under Conservancy and Works. Revenue from all other minor sources amounted to Rs. 1,44,782 against Rs. 1,12,131 in the previous year. Stock worth Rs. 10,773 was on hand at the close of the year.

Southern Circle Area.

The following statement shows the forest area of the Southern Circle for 1892-93 :—

Names of Districts.	Area on 1st April 1892.				Added during the year.				Excluded or transferred to other heads.				Area on the 30th June 1893.				Total Forest Area.	
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.			
	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.
Kánara	754	78	2,703	367	...	504	1	333	...	128	...	421	754	454	2,704	269	3,549	83
Belgaum ...	494	362	196	572	...	...	...	...	...	...	...	...	494	362	196	572	[illegible]	204
Dhárwár ...	171	410	260	258	...	...	...	...	...	...	...	...	171	410	260	258	[illegible]	28
Bijápur	155	76	89	469	...	...	...	...	...	...	...	...	155	76	89	469	244	[illegible]
Kolába	881	286	63	582	...	...	...	6	...	...	...	...	881	286	63	588	445	234
Ratnágiri ...	20	80	...	...	...	...	...	...	...	...	...	...	20	80	...	...	20	80
Total ...	1,977	12	3,404	258	...	504	1	339	...	128	..	421	1,677	588	3,406	176	6,383	504

The area and classification of the forests underwent no change during the year under report excepting that 504 acres were made reserved, and 1 square mile 333 acres protected in Kánara, and also 6 acres added to the protected forests in Kolába. On the other hand 128 acres of reserved and 421 acres of protected forest were disforested during the year.

Forest settlement and demarcation.

The Forest Settlement Officer, Kárwár, completed field work connected with 7 villages of Kárwár and 168 of Sirsi, having a forest area of 23·89 square miles, and 431·28 square miles, respectively. Settlement proposals for those forests were in course of preparation at the end of the year. The demarcation party under the Settlement Officer also completed the survey of a line dividing the protected from the reserved forests of Sirsi, which were settled during the previous year. The line measured aggregated 107 miles 7¾ furlongs. Fair field-books showing particulars of survey and boundary marks for 22 villages of Sirsi, as well as maps, were also prepared for use of the village and Forest Officers. In Dhárwár, the Settlement Officer finished the field-work connected with the conversion to reserved of the protected forests of Dhárwár, Gadag, Karajgi, and Bankápur, aggregating 111·8 square miles, and submitted a report on Dhárwár (22 square miles).

Forest offence.

The number of forest cases taken into Court during the year was 492 against 346 in the previous year, including 105 cases pending at the end of 1891-92. The total number of cases for disposal during the period under report was 597. Of these 575 were disposed of, leaving a balance of 12 untried at the end of the year. The number of convictions obtained in cases decided by Magistrates was 196 in 1891-92 and 438 in 1892-93. The increase in the number of cases taken into Court amounted to 145, and occurred in all the Divisions excepting the Central and Southern Divisions of Kánara. In the Northern Division of Kánara (98) it was due chiefly to thefts of firewood in Kárwár, and in the Belgaum Division (105) to prosecutions for illegal grazing in the fuel cuttings of Khánápur. In Dhárwár, the increase amounted to 20, in Kolába 14, and in Bijápur and Ratnágiri 6 each. The number of cases compounded by Forest Officers, under Section 67 of the Forest Act, was 912 in 1892-93 against 803 in 1891-92. The increase occurred chiefly in Belgaum, where the number rose from 210 in 1891-92 to 475 in 1892-93. The increase above noted in the number of cases compounded and brought into Court was due also, in some degree, to the fact that the period under report extends to 15 months, while the figures for 1891-92 were only for 12 months.

Staff.

The personnel of the superior staff underwent some change during the year, under the sanctioned reorganization scheme, which was brought into force in this Presidency from 1st April 1892. The subordinate staff, however, remained unchanged. The actual cost amounted to Rs. 1,22,519 and Rs. 1,46,949 on account of the Superior and Subordinate staff, respectively, against Rs. 85,534 and Rs. 1,13,703 in 1891-92.

Forest survey.

The following shows the details of work done by the Forest Survey Party during the year ending 30th September 1892:—

District.	Táluka.	Triangulation.		Traversing.		Topography.				Total.	Remarks.
						4"		8"			
		Area.	Cost.	Area.	Cost.	Area.	Cost.	Area.	Cost.		
			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	Rs. a. p.	
Kanara ...	Sirsi ...	a 200	4,432 15 11	b,295	5,517 15 10	195	16,656 13 5	...	.....	26,607 13 2	a 100 square miles are in advance. b 256 linea miles, of which 104 are in advance.
Kolába ...	Panvel ...	...	.....	...	.....	...	.....	68	13,973 9 3	13,973 9 3	
	Total ...	200	4,432 15 11	295	5,517 15 10	195	16,656 13 5	68	13,973 9 3	40,581 6 5	

Working Plans.

The following shows the work accomplished by the Working Plans Branch during the year 1892:—

	Lines 10' to 15' broad.			Linear miles surveyed.	Posts fixed.	Test trees felled.	Number of compartments formed.	Test area estimated.	Area for which Working Plan has been formed.	Total cost incurred.	Cost Acre.
	Cleared of re-growth, &c.	Jungle cut and cleared.	Total cut and cleared.								
		Miles.	Miles.	Miles.	No.	No.	No.	Acres.	Acres.	Rs.	Rs. a.
Party I	...	100	100	106	352	82	19	2,709	10,106	20,238	...
Party II	...	40	40	44	784	77	18	938	9,995	13,753	...
								Total ...	20,101	33,991	1 11

Natural reproduction.

Natural reproduction on the whole greatly improved from the continued special measures of fire-protection.

Artificial reproduction.

In the Northern Division of Kánara, an experiment of planting teak in bambu tubes was undertaken during the year, and 13,132 seedlings were put out in that way in several places. Of these 7,723 were reported to be thriving, and 600 *matti* seedlings, put down in open places elsewhere, were also growing successfully. In the Central Division of Kánara 8,683 teak, 1,991 blackwood and 1,597 junglewood plants were put down from nurseries. Also 7,923 seedlings of the three kinds were reported to have been obtained from seeds sown in the forests of several ranges. In Belgaum a successful teak nursery was made at Nagargáli, and some of the young plants were put out in an enclosed portion of the forests with a view to testing the behaviour of young seedlings under different degrees of shade. Several small nurseries were also made in the Khánápur range, and the plantation at Deshnur was extended from 156 to 180 acres at a cost of Rs. 96; 918 plants of several kinds were put down. In Ratnágiri, 17,991 seedlings of casuarina, ain, teak, &c., were planted in the Dápoli plantation, and a nursery containing 15,615 seedlings was made. The expenditure on plantations in the circle amounted to Rs. 2,165 against Rs. 2,011 in 1891-92.

Communications and Buildings.

In the Northern Division of Kánara, a road 500 feet long, connecting the Hullial timber-depôt with the main road, was made at a cost of Rs. 261, and the Bhágwati-Pateli road put in repairs at a cost of Rs. 200. Two wells were constructed, one in the Hallial depôt and the other at Sambrani, for Rs. 300 each. Rs. 125 were laid out on repairing several forest cart-tracks, and Rs. 307 on repairs to existing watch-houses and other forest buildings. In the Central Division of Kánara, the Kannigeri-Udámaki road was extended in length as well as put in repair at a cost of Rs. 200. Two new watch-houses were built for Rs. 300 each, and several old watch-houses repaired at a cost of Rs. 1,648. The well at Wadgatti was completed at a cost of Rs. 202 and Rs. 348 spent on deepening the well at Kolikeri. In the Southern Division of Kanára, Rs. 90 were expended on a forest road, Rs. 100 on renewing the roof of the Sirsi depôt-house and Rs. 317 on repairs to forest watch-houses, &c. Two wells were constructed at a cost of Rs. 340, and the well in the Singanhalli timber-depôt completed at a cost of Rs. 149. In Belgaum, Rs. 1,056 were laid out on repairs to the Halshi-Nagargáli forest road, Rs. 15 on a forest cart-track and Rs. 483 on repairs to guard-houses and a rest-house. In Dhárwár a depôt-house was built for Rs. 999; and in Ratnágiri, the Dápoli bandh road was repaired at a cost of Rs. 45.

Free grants of timber.

Free grants of timber worth Rs. 18,586 were made during the year; the value of the grants in the year before amounted to Rs. 13,792.

Forest fires.

The operations under this head were conducted as usual in the several divisions, and a larger area was fire-traced in all the divisions, excepting the Northern Divisions of Kánara, than in the previous year. The area attempted to be protected was 1,238 square miles of which 19 square miles were burnt. The cost incurred was Rs. 23,943.

Yield of forests.

The large teak exploited in the Southern Circle during the period under report amounted to 324,161 cubic feet against 358,883 cubic feet in 1891-92; and small teak,

such as poles, pieces, rafters, &c., to 883,710 cubic feet against 1,026,358 cubic feet. The large junglewood removed, yielded 305,889 cubic feet against 270,557 cubic feet, and the junglewood poles, rafters, janthies, pieces, &c., 55,842 cubic feet against 26,437 cubic feet. The yield of blackwood was 56,239 cubic feet against 24,730 cubic feet, and of blackwood poles, &c., 965 cubic feet against 586 cubic feet. Four hundred and thirty-four casuarina poles were also brought in during the period in question. The number of bamboos extracted rose from 4,031,476 in 1891-92 to 5,651,515 during the period under report, and the outturn of sandalwood in the Central and Southern Divisions of Kánara from 54 to 74 khandies. The collection of myrabolams amounted to 5,075 khandies against 8,520 khandies in 1891-92. The quantity of firewood removed from the forests aggregated 6,113,881 cubic feet against 6,268,615 cubic feet. The fuel supplied to the Southern Marátha Railway Company during the period under report amounted to 3,458,771 cubic feet against 2,902,922 cubic feet in 1891-92.

Financial results.

The financial results for the period under report (1st April 1892 to 30th June 1893) were as under :—

Receipts.	Expenditure.			Surplus.
	A. Conservancy.	B. Establishments.	Total.	
Rs.	Rs.	Rs.	Rs.	Rs.
13,84,371	4,60,866	3,58,276	8,19,142	5,65,229

The figures for the financial year 1892-93, as compared with those for 1891-92, are given in the following statement :—

Year.	Receipts.	Expenditure.			Surplus.
		A. Conservancy.	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92	11,47,707	4,37,415	2,67,816	7,05,231	4,42,476
1892-93	12,01,085	3,88,824	2,85,773	6,74,597	5,26,488
Increase ...	53,378	.....	17,957	.....	84,012
Decrease ...	.....	48,591	.....	30,634	.....

Both the gross and net revenues of the year under report were larger than those of the year before. The increase was met with chiefly in the Northern and Southern Divisions of Kánara and in Kolába, and was due to more favourable sales of timber exploited by Government agency, and also to the fact that the figures given cover a period of 15 months instead of twelve as in the previous year.

Sind Circle: Area.

The subjoined table gives the areas of the forests of the Sind Circle as they appeared on the 30th June 1893, together with the additions thereto and deductions therefrom during the period under report :—

Division.	Area as it stood on 31st March 1892.				Area added during the year.				Area excluded during the year.				Area as it stood on 30th June 1893.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.	
	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.	Sq. miles.	Acres.
Sukkur	446	79	1	128	...	7	...	...	...	...	...	...	446	86	1	128
Naushahro	229	90	3	427	...	...	...	...	...	95	...	...	228	635	3	427
Hyderábád	159	594	...	...	...	...	...	...	...	97	...	...	159	497	...	...
Jerruck	151	477	...	117	...	...	...	...	11	366	...	...	140	111	...	117
Total ...	986	600	5	32	...	7	...	...	11	558	...	...	975	49	5	32

In the above table 3 square miles, 427 acres, appear for the first time in the Naushahro Division. This area is in the Sháhahghardádan forest in the Sehwan Táluka, and through an oversight was omitted from former reports. In the Sukkur Division 6 acres 36 gunthás were added to the Adilpur forest in the Ghotki Táluka. Of the areas excluded during the year under report, 95 acres were transferred from the Gajidero forest to the Public Works Department for a new feeder to the Western Nara. In the Hyderábád Division about 97 acres were excluded, all from the Shah Makai forest; and in the Jerruck Division the whole of the Laikpur forest, 7,406 acres in area, was disforested and handed over to the Revenue

Department, the forest being unirrigated and consequently unproductive. A special Forest and Demarcation Officer was appointed during the year with a view to the selection of additional land for incorporation in the forest areas. Draft notifications with regard to 579 acres of land were issued during the year. The area of land lost and gained by the action of the river was 9,027 and 6,661 acres respectively.

Forest offences.

The number of cases tried by Magistrates during the 15 months ending the 30th June 1893 was 50 as against 35 in 1891-92. The number of convictions obtained was 25 as against 21. The number of cases compounded under section 67 of the Forest Act was 2,427 as against 2,752 in the preceding year, and the amount of compensation received was Rs. 3,085 as against Rs. 3,418.

Fires.

The area traversed by fire during the period under report was 2,239 acres as against 5,539 acres in 1891-92. The number of fires fell from 107 to 53.

Yield of forest.

The quantity of material disposed of at each of the sale depôts of the Sind Circle during the period under reference was as follows: timber 53,274 cubic feet; post and rafters 2,25,350; and fuel 310,394 maunds. The corresponding figures for 1891-92 were 40,033, 1,82,229 and 316,705. The epidemic of cholera which raged throughout the province for three months, and subsequently the heavy rainfall and disastrous floods, were great impediments to the successful carrying out of forest operations.

Financial results.

The total receipts and expenditure are for the period under report as contrasted with those for 1891-92:—

Year.	Receipts.	Expenditure.			Surplus.
		A. Conservancy and Works.	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92	7,74,210	4,10,390	91,546	5,01,936	2,72,274
1892-93	7,91,031	4,19,135	1,25,196	5,44,331	2,46,700
Increase ...	16,821	8,745	34,650	42,395	.....
Decrease ...	.....	.....	.....	.....	25,574

Mines and Quarries.

There is nothing to record under this head.

Manufactures.

Handicrafts. Cotton.

Cotton, which is cultivated throughout the Presidency, including Sind, is manufactured into cloth in every village of any importance. The cotton is cleaned and spun into yarn by nearly every class of people, and some workers are established in each town, partly weavers partly agriculturists, who supply the wants of the community. Most of the lower classes still wear home spun and woven goods. But the cotton mills, erected in Bombay, Ahmedábád, Broach, Surat and elsewhere in the Presidency, have introduced yarn and cloth which find a ready sale.

Dyeing.

Dyeing both of yarn and of cloth is carried on wherever sweet water can be found. The water of Kaira has a special reputation. In the north of Gujarát the favourite colour is red, and in Káthiáwár red, deep brown, and yellow. Blue and green along with red and yellow are more prevalent in south Gjuarát and in the Marátha districts. Besides village dyers about 1,200 persons are employed in three steam dyeworks in Bombay and in one in Ahmedábád, which turn out yearly goods (chiefly turkey red) to the value of 30 lákhs of rupees. The old native vegetable dyes have been superseded by alizarine and similar colours. These new dyes, though cheaper, more easy to apply, and quicker in taking effect, at their best are harsh and glaring and soon fade into hideousness.

Printing.

In the Gujaráti-speaking districts printed cotton goods are extremely popular, whereas Maráthás usually wear plain stuffs of cotton only or of cotton and silk, dyed in the thread, and decorated with metal-leaf, or with a simple border and a fringe (*padar*) of a different colour at one end. In Gujarát few places of importance are without streets of Chhápadias or Bhausáras cotton-printers, whose work is better in proportion to their distance from the railway, which, in the chief towns, has enabled the cheaper and more brilliant Europe cotton goods to undersell the native manufactures. The Sind cotton-printers are the most skilful and tasteful in the Presidency, and those of Dhárwár rank second. Both in Sind and in Dhárwár the goods decorated are large sheets (*razáis*), used as bed-coverings, wall-hangings, and floor and ceiling cloths, and sometimes as clothing in cold weather. The best cotton robes (*sáris*) are printed in Ahmedábád and Surat. Broach comes next and Baroda last. These goods are largely exported to Káthiáwár from Ahmedábád and to a less extent from Surat. Numbers of calico printers are settled in Bombay city and turn out work of fair

quality, which is popular among the Musalmáns of the Dekhan and Konkan. They get their materials from the Bombay mills. HANDICRAFTS.

Chundari or Knotting is another method of decorating cotton and silk goods. The design is first sketched, or printed in outline, on cloth which has been once dyed. Parts of the cloth are picked up and a thin thread twisted round them, a small projection being generally left in the centre. The cloth is then dipped in a dyeing vat of a colour different from that applied in the first instance. When dry, the threads are removed, and the parts previously protected by the threads are exposed in the original colour, the variety thus produced adding much to the value of the cloth. Sind, Cutch, Káthiáwár, north Gujarát, Baroda, and Bombay give employment to a large number of Chundari-workers. Káji Mula Street near Nal Bázár is the centre of the industry in the Presidency town, but the work is carried on in several other places. Knotting.

Various robes (*sáris*), bodices (*cholis*), waistcloths (*dhotars*), and turbans are manufactured for the Marátha castes. Some are all cotton or cotton and silk, some cotton and silk with gold or silver thread, some silk with gold or silver thread. Ahmedábád, Yeola, Ahmednagar, Málegaon, Násik, Poona, and Dhárwár are all famous for their cotton goods. In the more costly fabrics Ahmedábád and Yeola work is superior to any. Poona is celebrated for good substantial plain *sáris* as well as for those of richer material; but most of the artisans of these places are being driven out of the market by cheaper European manufactures. The Bombay hand-loom weavers, a large proportion of whom are Musalmán Juláhás from the North-West Provinces, turn out cheap cotton goods of all sorts to suit the taste and customs of the people whom the railways bring to the city from all parts of India. Woven Goods.

Cotton carpets, rugs, horse-cloths, towels, and napkins are manufactured at the jails in Sind and throughout the Presidency. Ahmednagar was celebrated for the strength and durability of its carpets, but the industry is dying, though an Ahmednagar carpet gained a prize medal at the Antwerp Exhibition in 1885. The flourishing Ahmedábád industry of making carpets for the American market has been almost ruined by the imposition of prohibitive import duties on arrival in America under the Mackinley Tariff Act. Carpets.

The manufacture of yarn and cloth by steam machinery is the most important steam power industry in the Presidency, giving employment to over 82,000 persons in 87 mills, 65 of which are in the Town of Bombay. Ahmedábád and Surat are, next to Bombay, the most important centres of the industry. The outturn, amounting to over 320 millions of pounds, is partly disposed of locally and partly exported to China and Japan. Of the 87 mills 36 produce both yarn and cloth, and 5 yarn only. Some of the larger mills have lately begun to weave the coarser kinds of hosiery, which is also made with English machinery in six small factories in Bombay employing about 500 hands. Cotton Mills.

The raw material used in the silk manufactures of the Presidency is imported from China and Bengal, either in the cocoon, or in skeins, raw or dyed. Silk goods are manufactured in Ahmedábád, Surat, Yeola, Násik, Thána, and Bombay, the material being often decorated with printed or woven designs, knot-work or embroidery, and prepared chiefly for *sáris*, brocades (*kinkhábs*), trouser stuffs, and turbans. As a rule printed silk is most worn in Gujarát, and plain dyed silk in the Marátha districts. Silk.

Brocade or *kinkháb*, the richest woven fabric produced in the Presidency, is either all gold thread and silk, or silver gold and silk. The various patterns and qualities are distinguished by different names. The *kinkhábs* of Ahmedábád and Surat find a ready sale in all parts of India. Yeola, Poona, and Násik have also a great reputation for silk or cotton *sáris* with woven designs, finished with rich gold or silver and silk borders. The Bombay silk is sold chiefly to the people of Gujarát and Upper India for petticoats (*ghágrás*) and bodices (*cholis*). The brocades known as *kinkhábs*, *nenrus*, *masrus*, *lapás*, and *tás* are used for robes, bodices, waistcoats, turbans, shouldercloths, and sashes. The *chundari* and printed stuffs are worn by the high caste Hindu women of Káthiáwár and Gujarát, as also by Memans, Khojás, Bohorás, and other Muhammadan women of Gujarát origin. Owing to the competition of European goods most branches of the industry are declining. Even in Ahmedábád the increase in the popularity of English-made robes is notable. Brocade.

Two silk mills with English machinery were started in Bombay in 1876, and a few years later were amalgamated into one concern, which now employs over 850 hands and pays good dividends. In Poona also a silk and cotton mill has lately opened, but the silk machinery has not yet been set up.

In preparing the gold and silver thread which is so largely used in the silk industry, the metal is first drawn out into a wire, of which one rupee's worth of silver will yield 2,000 yards. This wire is generally twisted with silk before being used in the loom; but in making the fabric known as *tás* the wire is beaten flat and forms the warp to a woof of thin silk or cotton thread. This gold and silver thread is largely used in ornamental edgings for *sáris*, the richest of which are made in Poona and Yeola. In Bombay also gold and silver thread are used for making lace. Wire-Drawing.

Embroidery on silk and cotton cloth in gold silver and silk thread is produced at Hyderábád in Sind, chiefly for the European market. Caps, slippers, cushions, narrow-sleeved (*chogá*) and broad-sleeved coats (*sháyáh*), and waistcoats are made for Muhammadans. The best-worked silk embroidery is produced at Navánagar and Gondal in north Embroidery.

HANDICRAFTS.

Káthiáwár, though Cutch gets the credit of the manufacture. Baroda Surat and Bombay also supply embroidery to Muhammadans and Pársis. Embroidered silks are little worn by Hindus, except by the women of Gujaráti castes.

Woollens.

Woollen goods are in little demand. The only important product is the country blanket made in the Dekhan Karnátak and Konkan by the Dhangars from homegrown wool. In Sind saddle-cloths and blankets and felts are made, and Bombay city has two woollen mills fitted with modern machinery, which turn out country blankets and coarse cloth for soldiers' overcoats. Six steam-power wool-cleaning factories are also at work in Bombay, where wool from Persia Muscat and Kandahár is prepared for export to Europe.

Fibres.

About 60,000 persons in all parts of the Presidency are employed in cutting retting and scutching hemp for export, in twisting and spinning hemp flax and coir into ropes and cordage, and in plaiting and weaving them into mats nets and sacking for export and home use. The yearly outturn may be valued at about 60 lákhs of rupees. The districts of Ahmedábád, Poona, Sátára, Ahmednagar, and Shikárpur are the chief centres of the industry. Two steam-power hemp flax and coir spinning factories with English machinery, one in Bombay and one in Sálsette, employ about fifty hands between them.

Paper.

Coarse paper is made from fibre to supply the local demand in Ahmedábád, Baroda, Surat, Násik, Junnar, Bombay, and Kolhápur. Of these the paper of Ahmedábád and Junnar has a large sale. Three steam-power mills turn out superior qualities of paper to the value of 1½ lákhs of rupees yearly, one in Bombay, one in Poona, and one in Surat. Of these the Poona mill alone works on a large scale. Previous attempts to start paper mills have generally failed owing to the heavy cost of the imported chemicals.

Precious Metals.

The custom of investing savings in gold and silver ornaments gives employment to many goldsmiths throughout the Presidency. The metal is usually supplied by the customer and the goldsmith charges for his labour from 8 annas to Rs. 2 or 3 the *tola*. The poorer classes often wear ornaments of baser metal. Sind goldsmith's work is very beautiful, but is rarely seen outside that province. The well-known Cutch gold and silver work is embossed by hand. After the metal has been cut into the required form, soft lac is run in as a backing, and the design is traced on the surface of the metal. The lines thus marked are then forced with a hammer below the general surface of the metal; and finally the parts standing out in relief are chased and polished. Colonies of Cutch silversmiths have settled in various parts of Gujarát, and the reputation of Ahmedábád silver work is due entirely to the presence of a colony of Cutch workmen. Many Cutch silversmiths have also settled in Bombay and a few in Karáchi. Silver-ware similar to the Cutch work is made in Ahmednagar in the Dekhan, and strong and massive articles of gold and silver are produced in Káthiáwár.

Gujaráti Ornaments.

The special ornaments worn by Gujarát women are square and padlock-looking nose-rings, round and other massive ear pendants, armlets (*karanful*), solid bracelets (*gugra*) either of gold or ivory extending high up the arm, and massive anklets (*kadlaa*) covered with bells, frequently so heavy that the wearers walk with difficulty.

Marátha Ornaments.

The special ornaments worn by the Marátha women of the Dekhan and Konkan are the graceful head ornaments called sweet pandanus (*ketak*), cobra (*nág*), moon (*chánd*), flowers (*phul*), peacock (*mor*), and an armlet of peculiar shape sometimes of gold but more frequently of silver. Their ankles are adorned with a chain-shaped silver ornament seldom so heavy as the anklets worn by Gujaráti women. To a large extent the ornaments worn by the Gujaráti and Marátha-speaking races correspond with their types of form and feature—the slender figures of the Marátha women inclining them to the choice of articles of light and intricate design, while the ample forms of the Gujaráti women harmonize with the plain and massive style of ornament which they have adopted.

Muhammadan and Párai Ornaments.

Muhammadans and Pársis have ornaments peculiar to themselves. Pársis are rapidly giving up the old shapes and metals preferring diamonds and pearls to all other decorations. The women of this race do not wear anklets.

Precious Stones.

Of precious stones carnelians and agates brought chiefly from Ratanpur near Broach and from Kapadvanj are worked in Cambay. In Bombay a brisk trade is carried on in these stones for export to Europe. Except for the decoration of children they are seldom used locally.

Brass and Copper.

Násik and Poona are both celebrated for their brassware and Bombay and Ahmedábád produce large quantities of copper vessels which are sent to almost every part of Western India. The copper is all imported from Europe in sheets and hammered into shape by the local workmen. After several unsuccessful attempts three steam-power factories with metal stamping machinery have lately been started, two in Poona and one in Bombay. Their brass white-metal and copper vessels command a ready sale.

Field Tools.

The cutlery and agricultural implements required by the people are still for the most part made locally by the village Lohár. The only goods that have more than a local reputation are the spear-heads of Ahmednagar, the knives and other tools of A'mod in Broach, and the swords spear-heads and chain armour of Cutch Káthiáwár and Baroda.

Ironwork.

Besides the Government factories and the workshops of the great steamship and Railway Companies, twenty factories in Bombay, fitted with English machinery, turn out iron-work of every description, from railway-girders to bolts and nuts. All the materials are imported from Europe. The indigenous art of hammered iron-work is still carried on in Ahmedábád. The beautiful perforated brass gates of the tomb of Sháh Alam show that the metal workers of Gujarát have not lost their skill.

HANDICRAFTS.

Tin.

Tin foil and gold foil are made in Ahmedábád and are much used at weddings for decorating door-posts. The tinplating of brass and copper vessels for household use is carried on in most towns. Musalmáns Pársis and many Hindus have their cooking vessels tin-plated. The importation of kerosine oil in tins has given rise to a new industry. Enterprising Bohorás in Bombay and up-country buy the empty tin cases at from 2 to 2½ annas each and fashion them into lanterns, kerosine lamps, cash-boxes, travelling trunks, oil and ghi-pots and other cheap articles. Tin kerosine lamps are to be found in almost every house even in the remotest corners of the Presidency.

Electro-plating.

Electro-plating to a small extent is practised in Ahmedábád. The articles made are chiefly horse-trappings of copper plated with silver for use in marriage processions.

Glass.

Glass is made at Kapadvanj in Kaira by Musalmán workmen, who caste beads, bangles, bottles, glasses, and fancy animals chiefly peacocks, which are exported to Káthiáwár and Bombay. In Khándesh a few Musalmán Maniárs follow the same occupation, and in Kolába some Hindus of the Bángadkásár caste make bangles from green glass imported from Bombay which are bought by the poorer classes.

Lac.

Lac is prepared in Khándesh by the forest tribes and lac bangles are fashioned in the Panch Maháls and exported in large quantities to Bombay. In Sind articles of local furniture and toys are beautifully ornamented with lac. Lacquered furniture is also an important product in Ahmedábád Baroda and Surat.

Ivory and Tortoise-shell.

Ivory rings are fashioned into women's bracelets in Bombay and Gujarát and sent in large quantities, chiefly to Rájputana. Tortoise-shell imported from Zanzibar is used for bangles which are worn by the poorer classes in Daman Bulsár and Surat, in rows of rings reaching halfway up the arms. These bangles are made both in Gujarát and in Bombay. Lacquered wooden bracelets are made in Ahmedábád for low class Hindu women.

Pottery.

Though little except the commonest variety is to be met with throughout the Presidency, pottery is manufactured almost everywhere and is in constant demand among the poorer classes who cannot afford copper vessels. Except in one or two localities glazes are seldom used. Litharge is a favourite glaze in Ahmedábád. Clay pots are polished either by the pressure of a stick or by the friction of pebbles attached to a string and applied with the right hand while the vessel is made to revolve with the left. Sind produces the best local pottery of Western India. The art was introduced, or at all events developed, by the Muhammadans, whose chiefs, the Amirs, gave it every encouragement. Magnificent tombs and mosques, now in ruins, testify to the great degree of excellence the potters attained. The art of glazing has been transmitted to the present day, but the work and materials have lost much of their original excellence. The combination of the glazes and the colours of Sind pottery with geometric patterns and traceries and flower and figure designs copied chiefly from the Ajanta cave paintings has, under the direction of Mr. Terry, formerly of the Bombay School of Art, proved one of the most successful and popular revivals of Indian art. Pátan in north Gujarát produces a thin red, white, and black pottery of little use, but delicate in texture and curious in form. The few potters left seem once to have known how to glaze, but seldom attempt to utilize their knowledge, except on toys and bowls for tobacco pipes. In Ahmedábád is found abundance of fine clay, which is worked into common red, black, pink, and dirty-white ware, such as earthen pots (*matkas*), water-jugs (*kujas*), and pipe bowls (*chilams*). These articles are decorated with burnt mica, which when baked looks like bronzed powder. Here too, as elsewhere throughout Gujarát and Baroda, the curious jars known as *kotis*, sometimes as much as seven feet high, which are used for storing grain, are built and baked in great numbers. Large tiles were formerly made by the Muhammadan masters of this city and its neighbourhood and entered largely into the construction of the many mosques and tombs for which Ahmedábád is celebrated. A very poor ware is manufactured in Bombay, but a good stiff clay is found in Alibág. Poona clay works into good common utensils. Pottery from Málwan and Goa meets with a ready market even in Bombay, where it is bought by almost every mariner or labourer who sails from those ports. The Sávda potters in Khándesh have a name for their skill in colouring their wares. Clay figures are made in Poona and sold in large quantities as toys and presents to newly married girls. Steam brick and tile factories have been tried in this Presidency but proved unable to compete with the hand-made articles.

Timber.

Four steam saw mills are at work in the Presidency, two in Bombay, one in Ron in Dhárwár, and one in Kánara which belongs to Government. Two factories produce art furniture, one a private concern in Bombay and the other attached to an industrial school in Ratnágiri.

Furniture.

Blackwood furniture is made in Ahmedábád, Surat, and Bombay, but is not so popular as it used to be. Large quantities of lacquered furniture, including beds, cots, swings, and chairs, are made in Bombay.

Wood Carving.

Ahmedábád and Surat are famous for their carved woodwork. Many of the houses in Ahmedábád are covered with elaborate wood-carving, and several excellent examples exist in Broach, Baroda, Surat, Násik, and Yeola. Samples and photographs of many of these carved house-fronts have been taken for the South Kensington Museum. The centre of the Bombay inlaid box-work, which owes its origin to Shiraz in Persia, is in Surat. Carving in

HANDICRAFTS.

sandalwood ebony and blackwood is also a fairly prosperous industry in Surat and Bombay, and a Pársi firm has established an agency in London for the well-known sandalwood toys of Surat. The best sandalwood carving belongs to Honávar Kumta and other places in Kánara. Carving in ebony and blackwood is carried on at Ahmedábád.

Vehicles.

The G. I. P. and B. B. & C. I. Railway Companies build their own rolling stock in Bombay and country carts are built in every large town. In the north are made long low carts on solid broad wheels fit to plough the deep sandy ruts of Gujarát. These carts, whose upper part is framed with basket-work made from the cotton plant, frequently have a train of six bullocks harnessed by strong leather-plated ropes made of buffalo hide. In other parts of the Presidency both the cattle and the carts are smaller. Excellent carts are made at Taloda in Khándesh and in the municipal and other workshops in Bombay. Throughout the Presidency in all towns of importance light carts known as *rekalas* are manufactured for the conveyance of passengers. These are usually drawn by a pair of bullocks, though horses are in some places employed. Pony tongas are built at many places in the Dekhan.

Boats.

Native boats are strongly and cheaply built at most of the coast ports, especially in Surat and Kánara. Government and the great steamship companies repair their vessels in their dockyards in Bombay and sometimes build steam-launches and other small craft.

Cane Work.

Canes are imported into Bombay from the Straits and are used in making matting and other articles. The lower castes all over the Presidency are expert at making matting and baskets of split bamboos.

Leather.

Shoes, sandals, harness, water-skins, and other leather articles in general demand are made by the local Chámbhár, who is found in every village. He is usually his own tanner and prepares his materials with the aid of the bark of the *bábul* tree. Besides this local industry, large numbers of people are employed in the curing of hides for exportation, of which 60 lákhs of rupees worth are sent to Europe yearly. In four mofussil factories this industry is carried on by the aid of machinery. Bombay has one large steam tannery manned chiefly by Tamil workmen. Although not very well prepared leather is worked into a variety of articles in Sind, Cutch, Káthiáwár, Gujarát, Baroda, Kháudesh, Bombay, Poona, and Sávantvádi. One of the most curious of leather articles is the jar (*dábaro*) used for holding oil and ghi. The *dábaro* is made by stretching a fresh skin over a hollow mould of dry clay. The skin is left stretched over the mould until it has become dry, when the mould is broken and the leather retains the form of the earthen jar. The rim is made by twisting pieces of skin round clay, the clay being left inside. Leather scales are made on circular earthen jars (*matkas*); the best are from Ahmedábád. Surat leather-bottle workers buy up old articles and remodel them. In Sind the chief leather manufactures are saddle-covers for camels and horses, shoes, leggings, and accoutrements. Ahmedábád still keeps up the manufacture of shields. They are now purchased only by Europeans as ornaments, though some thirty years ago the Arab mercenaries commonly used them as weapons of defence. Of women's shoes those made in Ahmedábád are thought the best in Gujarát. Very good boots and shoes, saddles, and bags are made in European fashion by native workmen under European superintendence in Bombay and Poona.

Horn.

Fancy articles of bison and other horn are moulded and carved with considerable skill in Ratnágiri and Kánara.

Bone crushing.

Bone-meal for export to England, where it is used as manure, is made in seven bone-crushing mills, six of which are in Bombay and one in Karáchi. The outturn amounts to 15,000 tons yearly, but chiefly owing to competition from South America the industry does not prosper.

Tobacco.

Country cigarettes (*bidis*) are made on a large scale in Bombay from up-country tobacco, chiefly from Gujarát and the Dekhan. The best snuff comes from Viramgám in Ahmedábád. Attempts have been made at Kaira to manufacture cigars to suit the European taste, but without success.

Sugar.

Sugar is made wherever the cane is grown, and very largely in Thána and Khándesh. Attempts to substitute modern machinery for the primitive country sugar mill have hitherto failed for want of capital.

Oil.

Oil-presses are numerous in every district, and oil is extracted from castor-seed, sesame, rape-seed, poppy-seed, *mhaura* (for soap-boiling), linseed, groundnuts, and cocoanuts. In some branches the local industry has suffered by the competition of kerosine oil. This loss has to a great extent been balanced by the great and growing demand for vegetable oil in oiling machinery. Grass oil is made in Pimpalner and west Khándesh. Eleven steam-power oil-mills are at work in Bombay, Poona, Chiplún, Ahmedábád, and Navsári, which turn out about 1,600 tons of oil annually.

Butter.

The trade in clarified butter is very great and is of special importance in Kaira and Khándesh. Large quantities of ghi, some of which is more or less adulterated with animal fat, are exported to Rangoon.

Soap.

Soap is made in Kapadvanj and Parántij from *mhaura* oil, soda, and lime; soap is also manufactured in small quantities in Bombay and Vengurla. It is in use in Gujarát and Bombay.

HANDICRAFTS.

Salt is made in large quantities in the Government works at Khárágboda and Udu in Ahmedábád, whence it is exported by rail to Gujarát and Central India. It is known as the Bárágara salt; and as in travelling it suffers less than sea salt, it is better suited for export to long distances inland. Sea salt is very largely made at Uran in Thána, and is exported by sea to the Malabár coast and Bengal and by land to the Central Provinces.

Saltpetre. Saltpetre is made in Ahmedábád. The earth of a large tract of country west of Viramgám is also suitable for the manufacture. Saltpetre is much used for fireworks, which are made in Bombay and in most of the native states.

Gunpowder. Gunpowder is manufactured at Baroda; a number of models of breech-loading guns and small arms prepared in that state were exhibited in the Bombay Exhibition. The Government Gunpowder and Small Arms factories at Kirkee are important institutions carried out on a large scale and with all the latest machinery and appliances.

Sulphuric Acid. Sulphuric acid, to the amount of 200 tons a year, is turned out by a factory in Bombay, where Italian sulphur is used. The local product suffers from the competition of imported acid.

Aerated Waters. There are numerous small sodawater factories in Bombay, chiefly owned by Musalmáns.

Ice. Ice factories are at work in the Presidency, including four in Bombay, which supply ice for local consumption and to the shipping.

Rice-husking. Though rice-husking is chiefly carried on without machinery steam rice-husking mills have been started with success at Bulsár, Ahmedábád, and Chinchni in Thána.

Flour. Flour grinding is still in most places a domestic industry. At the same time Bombay has 13 and other large towns 14 factories fitted with English machinery, which turn out over 220 million pounds of flour annually for local consumption and for export to the Red Sea and Mediterranean ports. The demand for flour for sizing purposes in the local cotton mills is also large.

Painting. High art hardly exists. Still the Portuguese Pársis and Hindus have the capacity for becoming useful and clever artisans and original workers in the lower branches of art and art manufactures. They possess great facility for adaptation and are excellent copyists. Independent of their labour in many engineering and architectural offices, their reproduction and copies of the temple of Ambarnáth near Kalyán in Thána and of the paintings of the Ajanta caves are creditable.

Lithography. In lithography the unaided efforts of native artists have resulted in the production of a few outlines of religious subjects, and in the portraying of the inventions of modern science, such as the steam-boat, railway-train, and balloon. So far all such attempts are crude. The only good work of this kind comes from the Government Lithographic Press.

Wood Engraving. The native pupils brought up at the School of Art engrave on wood, and have successfully illustrated elementary educational and medical works.

Printing. Excellent English printing comes from presses managed by Europeans. Vernacular printing is improving, especially in Bombay, where the demand for newspapers and new books is rapidly increasing. Vernacular type-making has attained considerable success in Bombay, where Maráthi Gujaráti and Kánarese types are prepared in the Education Society's Press and the Ganpat Krishnáji press. The Nirnayaságar press also produces equally good types in Maráthi and Gujaráti. The Samáchár press in Belgaum has its own Kánarese type foundry.

Sculpture. Cutch and Káthiáwár stonecutters have a marked talent for sculpture. The art has been transmitted from father to son for many generations. The Muhammadans were not slow in availing themselves of these skilful artisans. At first, especially in Ahmedábád, the Hindu artists influenced the Muhammadan design; and again the taste of their masters, re-acting on the minds of the artists, produced the style of modern Jain architecture, of which the Hatehsingh temple at Ahmedábád is perhaps the best example. The skill of these Cutch and Káthiáwár workers has been found most useful in executing the more elaborate portions of the stone-work of the public buildings constructed in Bombay. With a little training these men render natural objects skilfully and intelligently and accurately reproduce Gothic details. Excellent Cutch sculptors as well as Portuguese modellers have been educated in the School of Art and in the Public Works Department.

Manufactures and Industries.

The chief industries, other than agriculture, in the Bombay Presidency, namely, the cotton mill industry, the manufacture of salt, and the distillation of liquor, are dealt with elsewhere. The remaining industries are comparatively unimportant. In Ahmedábád City, the usual industries of kinkháb, sári and carpet manufacture and of wood-carving, continued and country glass-ware and soap of the usual quality was manufactured at and exported from Kapadvanj, Parántij, and other small towns in Gujarát. Gold and silver lace-making, silk and brocade-making, sandalwood

and ivory-carving continued to prosper at Surat; some encouragement was given to these industries by the collection of a number of samples of the work done for the Chicago Exhibition. The glass industry in the Mahim táluka of Thána district was stationary and the bone mill stopped working; but the silk industry was reported to be improving. In the Násik district metal-ware and silk work continued to be specialities. The quality of the Ahmednagar silver work showed a considerable improvement, and exhibits sent to the Simla Exhibition were awarded the first prize there. The outturn of the Deccan Brewery at Dápuri near Poona increased considerably, mainly owing to the unfavourable rate of exchange, which reduced the imports of beer from foreign countries, and to the extension of the Company's business in the Madras Presidency. The Reay Paper Mills at Poona continued to manufacture that article on a large scale. A new silk mill was started at Poona towards the end of the year. Manufactures and industries in the Southern Marátha Country were generally unimportant. There was a slight improvement in the sandalwood industry in South Kanara. There were but few manufactures of any importance in Sind; some samples of silk goods made at Tatta were, however, sent to the Chicago Exhibition.

THE FACTORIES ACT.

General.

The first Factory Act introduced into this Presidency was Act XV of 1881 which applied only to factories employing more than 100 hands, and, beyond providing for the fencing of machinery and the granting of four holidays a month to the operatives, imposed no restrictions on adult labour. The employment of children under 7 was absolutely forbidden, and the hours of work for children between 7 and 12 years of age were limited to nine hours a day. Under this Act an Inspector from England was employed for several years, but the inspection work was afterwards handed over to the Collectors in the Mofussil and to the First Assistant Collector in Bombay. The amended Act XI of 1891, which came into force on 1st January 1892, extends to all factories employing more than 50 hands. Under it no child under 9 may be employed at all, and no child between 9 and 14 may work for more than 7 hours a day. Women's work is limited to eleven hours between 5 A. M. and 8 P. M., with intervals of rest aggregating 1½ hours.

Factories.

The number of factories in the Bombay Presidency during the year was 253, of which nearly half (119) were situated in the Town and Island of Bombay. All of these with the exception of 9 were inspected by Government officers at least once during the year, most of them oftener. The provisions of the Act relating to the grant of holidays and mid-day rest were generally observed. The total number of hands employed was 1,18,470, of whom 22,844 were women and 5,946 children. The women were chiefly employed in spinning and weaving mills as reelers and winders, and the children as piecers and doffers. The majority of the mill-hands belong to the agricultural classes and take to mill-work for a few years only.

Accidents.

There were 731 accidents reported during the year, of which 13 were fatal and 79 serious. Except in Khándesh the fencing of machinery was generally satisfactory.

Prosecutions.

Two prosecutions were instituted during the year, one for omitting to give the full mid-day rest and working children under 14 as full-timers; the other for employing under-age children in breach of the Act. In the first case the owner of the mill was convicted and fined Rs. 200; in the second the Magistrate convicted the directors of the mill, but the conviction was quashed on appeal.

STEAM BOILER INSPECTION ACT.

General.

The only noticeable events of the year in connection with the working of the Boiler Department were the transfer of the work of inspecting boilers in Sind to the Bombay Boiler Inspection office, and the addition of a Third Inspector to the staff of Inspectors in that Department. The appointment of the Third Inspector enabled the Department to answer irregular calls for inspections in a very satisfactory manner.

Operations of the Department.

At the close of the year there were 813 boilers on the local, and 619 on the Mofussil registers, as compared with 757 and 578, respectively, in 1891-92. The number of regular inspections made during the year was 584 in Bombay, and 438 in the Mofussil, as against 573 and 443, respectively, in the previous year. Out of the 438 inspections in the Mofussil the Senior Inspector made 25 inspections to enable him to supervise the work and proceedings of the Junior Inspectors. Every certified boiler working in Bombay was inspected during the year at least once "under steam" over and above the regular inspection and the same practice was followed in the Mofussil when practicable. Besides these, 28 boilers at Áden, 96 in Sind and 108 in the Berárs were examined during the year. In Aden, 4 boilers were removed from, and an equal number was brought on, the register during the year under report. Of the former, one was condemned and three were put out of use. Of the boilers on the register of the Department at the close of the year, 229 remained uninspected in Bombay and 181 in the Mofussil. During the year under review no appeal was preferred to a commission or prosecution instituted for a breach of the provisions of the Act; nor were there any accidents causing loss of life or injury to any person. The only accident reported by the Political Resident, Aden, was the partial collapse of the furnaces of a new marine-type boiler for the manufacture of ice belonging to the Perim Coal Company. The numbers of candidates examined during the year under report in Bombay and Karáchi were, respectively, 405 and 30, as compared with 518 and

89 during the preceding year, the number of candidates who passed the examination being 216 in 1892-93, as against 231 in 1891-92. The decrease was apparently due to the fact that the number of certified engineers in the Presidency has largely increased, while the opportunities for employing them remain the same.

Financial results.

The total receipts realized under all heads were Rs. 41,882, as compared with Rs. 41,725, while the expenditure was Rs. 25,164, as compared with Rs. 22,824, during the previous year; the increase in expenditure being due chiefly to the creation of the appointment of "Third Inspector." The total balance to the credit of the fund amounted to Rs. 52,895, of which Rs. 30,013 were invested in Government securities.

BOMBAY MILL-OWNERS' ASSOCIATION.

The following information has been extracted partly from the report of the Committee dealing with the year ending 31st December 1892, and partly from a statistical table furnished by them of the cotton spinning and weaving mills working in India on 30th June 1893:—

The Cotton Mill Industry.

In some respects the year 1892 was a disappointing one for those engaged in cotton spinning and weaving in India, the high prices attained by the raw material seriously circumscribing profits. At the same time there was some room for satisfaction in the fact that the consumption of goods and yarns, both locally and in the further East, showed a steady increase, the shipments of yarn to China being 5·68 per cent. and to Japan 96·04 more than in 1891; while in piece-goods there was an increase in the exports to China of 2,852 bales or 63·61 per cent. On the 30th June 1893, the number of mills working in the city and island of Bombay was 67 against 68 on the same date in 1892; two were in course of erection. The number of up-country mills was 29 against 28 last year. The total number of spindles and looms again rose from 2,380,178 and 19,117 to 2,499,211 and 21,425. There was a decline, however, in the quantity of cotton used, the figures for the town and island of Bombay being 728,588 and 724,260 bales, and for the rest of the Presidency 120,902 and 113,008 bales.

Factory legislation.

The amended Factories Act was in force throughout the year, and rules under Sections 9, 13, and 18 of the Act were published and came into force on 22nd June 1892. As far as the Act itself was concerned, no friction arose between the Association and the officials entrusted with the administration of its provisions. Certain points in the rules, however, were considered open to objection by the Association and were under discussion between a committee of that body and the Collector of Bombay at the close of the year.

Labour difficulties.

The increasing frequency and importance of strikes among mill-hands induced the Association during the year to take action with a view to preventing the re-employment of labourers who had struck work on frivolous and insufficient grounds.

Affairs of the Association.

The number of members of the Association on 31st December 1892 was 65 as against 62 on the same day in the preceding year. The balance on 31st December 1891 was Rs. 19,711 and the receipts during the year were Rs. 10,508. The expenditure amounted to Rs. 8,860 and the balance at the end of the year was Rs. 21,359.

Trade.

General remarks, Bombay.

The total value of the sea-borne trade of the Port of Bombay was the largest ever recorded, as it amounted to nearly 105½ crores of rupees or Rs. 6¾ crores more than in the preceding year. This increase, however, was more nominal than real. In the first place, nearly one-fifth of the total represented transactions in treasure which aggregated 20½ crores of rupees or 7 crores more than in the preceding year; and in the second, the extremely low rate of exchange enhanced considerably the value of both imports and exports. As an instance of this it may be noted that while cotton, twist and yarn together showed under export the large increase in value of nearly 2½ crores, the actual quantity shipped was larger by only 90,000 bales and 154 lakhs of pounds respectively, and seeds which showed an improvement of Rs. 48 lakhs were actually forwarded in smaller quantities than in the previous year. For the increase of over 6 crores in foreign trade, the transactions in treasure were entirely responsible, the increase being almost equally distributed between imports and exports. Both imports and exports of merchandise proper showed a falling off in value, which becomes more apparent still when the volume of the trade is examined. The decrease in imports was almost general, the only articles in which there was any improvement being sugar, oils, machinery and mill-work, raw cotton, jewellery, copper and iron. The decline in the imports of cotton piece-goods, twist and yarn was very marked, the value of piece-goods being 9½ per cent. and that of twist and yarn 25 per cent. less than in 1891-92. When it is remembered that the totals for the latter year exhibited a decrease of 10½ per cent. and 17½ per cent. respectively on those for 1891-92, it is evident that there was a very serious diminution in the amount of trade done. Besides these articles, there were large decreases in raw silk, wool manufactures, grain and pulse, spices, provisions, steel, ivory and coal. The chief feature of the export trade was the cessation of the heavy shipments of grain and pulse, which were less by 3 crores than in the previous year. There was an increase as has been mentioned above in the quantity of cotton shipped, but exports of both tea and spices were smaller than in the previous year. The countries with which trade showed improvement were the

United Kingdom, Belgium, Germany, Italy, Austria and Arabia; there was a falling off in the trade with China, France, Persia and Straits Settlements. The value of the trade with the United Kingdom represented 42·49 per cent. of the total foreign trade against 38·62 per cent. in 1891-92. This improvement was, however, entirely due to transactions in treasure. The falling off in merchandise, which has been very noticeable now for several years, still continued, the total value of the trade being 21 crores of rupees against nearly 28 crores in the previous year, a loss of 7 crores in which imports and exports shared to an almost equal extent. Imports of cotton piece-goods alone were less by one crore than in 1891-92; and there were large decreases under steel, woollen manufactures and coal. Exports fell off under grain and pulse, oil-seeds and raw cotton. The improvement in the trade with Belgium was confined entirely to imports, which consisted chiefly of aniline and alizarine dyes, glass, hardware and cutlery. Exports remained stationary, the principal article being seeds of which the quantity exported increased by 24 per cent. There was a decline under wheat; raw cotton, flour and horns. The trade with Germany made great progress during the year, imports being 26 per cent. and exports 54 per cent. above those of the previous year. Under the first head the principal articles were refined sugar and alizarine dyes; under the second, raw cotton, wheat, seeds and myrabolams. The increase in the trade with Italy was entirely confined to exports, imports showing a considerable falling off. Trade with Austria on the other hand showed an improvement which was equally distributed over both imports and exports. The principal articles imported were cotton, silk and woollen piece-goods, glass and dyeing materials; those exported, raw cotton and myrabolams. The improvement in the import trade with Arabia was due to larger receipts of precious stones and pearls, fish-maws and shark-fins. Exports of piece-goods of Indian manufacture, of rice, jowári and bájri exceeded those of the preceding year. The total value of the trade with France declined by 13 per cent., owing to restricted transactions in merchandise, principally in exports. Nearly half the imports consisted of silk goods, the receipts of which were less than in the preceding year. The decline in exports was due to smaller transactions in wheat and oil-seeds, especially the former. The decrease in the China trade was nominal and was due entirely to smaller treasure transactions. Merchandise generally, especially refined sugar and Indian cotton manufactures, showed an improvement; the only falling off of importance was in opium which, as was to be expected after the heavy shipments of the previous year, decreased. A remarkable feature in the returns for the year was that for the first time for fourteen years exports of gold exceeded imports, and the excess which amounted to nearly Rs. 3 crores was more noticeable still. The imports of this commodity were Rs. 135¼ lákhs and the exports Rs. 423½ lákhs against Rs. 315⅗ lákhs and Rs. 158⅗ lákhs respectively in the previous year. Imports of silver showed the enormous increase of Rs. 5⅗ crores, the total being Rs. 13$\frac{1}{10}$ crores against Rs. 7⅖ crores in the previous year. Exports also rose slightly. Imports of coal, which were received almost entirely from the United Kingdom, declined by 12 per cent.; the deficit being made good by increased receipts of country coal from Calcutta. Cotton goods of foreign manufacture, by far the most important article of the import trade, showed a heavy falling off, which was attributable to the low rate of exchange, to the high prices of raw material and to the strikes among the Manchester operatives. The quantity of iron and steel imported showed a falling off, especially the latter, which declined by 30 per cent.; the decrease, however, was almost confined to receipts from the United Kingdom, receipts from Belgium, which appear to be driving the English iron and steel out of the market, remaining practically the same as in the previous year. Copper, quicksilver and tin showed an improvement. There was an improvement in the imports of machinery and mill-works, and railway plant and rolling stock. Imports of kerosine oil improved, especially of the American article, which continued to rise in favour owing to its superior lighting power. There was increased activity in the sugar trade, imports being 8 per cent. above those of the previous year. The decrease in general exports was almost entirely due to the diminished quantity of wheat sent to Europe which was smaller by 43 per cent. than in the previous year. This was only to be expected as the Russian famine of 1891 had largely stimulated exports from this country in that year. Shipments of jowári and bájri for consumption to Abyssinia also showed a heavy decline. Exports of Indian tea were less than what they were in the previous year, owing to the fact that the Persian market, where this article is chiefly consumed, was overstocked. On the other hand there was an increase in the value of exports of raw cotton, seeds and spices. The increase under raw cotton was due to larger receipts of Bengal cotton in Bombay for shipment; that under spices to unusually good crops in this country. The increase under seeds was nominal and due to the low rate of exchange, as the quantity exported was less by 7 per cent. than in the previous year. There was a real and satisfactory increase in the amount of coasting trade, imports of merchandise showing an improvement of Rs. 24⅖ lákhs and exports one of Rs. 30⅕ lákhs. Transactions in treasure diminished by Rs. 4⅓ lákhs. The amount of shipping that visited the port during the year fell off considerably, the number and tonnage of vessels cleared and entered showing a decrease of 119 and 1,25,663 respectively.

Sind.

The total value of the sea-borne trade of the port of Karáchi, excluding Government stores and treasure, amounted to Rs. 1,128½ lákhs against Rs. 1,561 lákhs in 1891-92, or a decrease of Rs. 432½ lákhs which represents 27·70 per cent. of the whole. Three and three-quarter crores of the decrease occurred in foreign and three-quarters of a crore in coasting trade. There was a falling off of nearly 53 lákhs or 12·97 per cent. in the imports

from foreign countries; while there was a still more serious decline of Rs. 319½ lákhs or 43·27 per cent. in foreign exports. The decline in the imports of foreign merchandise not liable to duty was most marked in cotton twist and yarn, grey cotton piece-goods, coal, copper, iron, steel and sugar, the only articles of importance which showed an increase being white and coloured cotton piece-goods, railway plant and rolling stock, hardware and cutlery, cement and brass. Imports of merchandise liable to duty showed a falling off of Rs. 4 lákhs or 13·40 per cent. compared with those of the previous year, the decrease being most marked in ale, beer, and porter, spirits, wines and mineral oil. Imports of treasure rose from Rs. 11⅛ lákhs to Rs. 13¾ lákhs, or an increase of over Rs. 2½ lákhs. The exports of Indian produce and manufactures not liable to duty fell off by nearly Rs. 320 lákhs or 43·11 per cent. The decline was chiefly in wheat, cotton coloured, dyed or printed piece-goods, seeds and tea. The exports of dutiable merchandise, on the other hand, which consist of rice alone, showed an increase of nearly Rs. 3 lákhs or 81·04 per cent., and there was also a rise of Rs. 1½ lákhs or 38·89 per cent. in exports of treasure to foreign countries. Imports from the United Kingdom declined by Rs. 36¼ lákhs or 13·08 per cent., the decrease being noticeable especially under coal, cotton twist and yarn, cotton grey piece-goods, machinery, iron, steel and zinc, though there was some improvement under printed and dyed piece-goods, railway plant and rolling stock, glass and various minor articles. Imports of treasure chiefly silver bullion increased by Rs. 2⅓ lákhs or 21·35 per cent. Exports of Indian produce and manufactures showed an enormous falling of over one crore of rupees, chiefly under raw cotton, wheat, pulse, seeds and tea. A similar decrease was observed in exports to all other foreign countries except in those to Germany, Persia, and Mekrán and Sonmiáni. The increase in the export trade to Germany amounted to nearly Rs. 8½ lákhs or 46·82 per cent., principally under raw cotton, bones, vegetable oils and gingelly seed. Imports from Germany declined by over Rs. 3 lákhs or 15·16 per cent. The value of the entire coasting trade decreased by nearly Rs. 60⅓ lákhs, imports showing a falling off of Rs. 67⅔ lákhs, while exports improved Rs. 7⅓ lákhs.

Aden.

The total value of the trade of Aden amounted to 817½ lákhs of rupees against 753 lákhs in the preceding year, the increase of Rs. 64½ lákhs being due to the continued demand for coffee in Europe, an increase in the quantity of skins exported, and to large imports of grain. The improvement in the trade was common to both the Foreign and Indian trade. There was, however, a falling off of 2 lákhs of rupees in the inland trade. There was a heavy decrease of 15 lákhs in transactions in treasure. The total value of imports from foreign countries was Rs. 296⅓ lákhs against Rs. 267⅓ lákhs in the previous year; while that of exports was Rs. 328⅔ lákhs against Rs. 301⅔ lákhs in 1891-92. The country from which the imports showed the largest increase was Arabia, which exhibited an increase of Rs. 10¼ lákhs, while Austria showed an increase of Rs. 6½ lákhs, East Coast of Africa Rs. 5½ lákhs, the United States Rs. 3⅙ lákhs and the United Kingdom Rs. 2¼ lákhs. The East Coast of Africa too showed an increase of Rs. 9⅓ lákhs under exports, while exports to the United States of America, France, Massowah and Zanzibar were larger by Rs. 8⅔ lákhs, Rs. 6⅔ lákhs, Rs. 2 lákhs and Rs. 2 lákhs respectively. Imports of merchandise from India were valued at Rs. 118⅘ lákhs as against Rs. 93½ lákhs in 1891-92, and imports of treasure at Rs. 6 9/10 lákhs as against Rs. 10⅘ lákhs in 1891-92. Exports of merchandise to India rose from Rs. 8⅔ lákhs to Rs. 10¼ lákhs, but exports of treasure fell from Rs. 18 lákhs to Rs. 12¾ lákhs. Trade with the North-East African ports declined from Rs. 102½ lákhs to Rs. 99 1/10 lákhs owing to smaller transaction with the Italian ports. The import trade with the mainland of Arabia fell off by 10·70 per cent., while the export trade increased 7·75 per cent. Speaking generally there was an increase in nearly all the principal articles of trade, the only decrease being in hides, the trade in which is still affected by the epidemic which decimated the cattle in Somáli land in 1890 and 1891, and in the exports of cotton piece-goods, which were slightly below those of the preceding year.

(1) PRESIDENCY PROPER.

Port of Bombay.

Total Trade

The total value of the sea-borne trade of the Port of Bombay, for the official year ending 31st March 1893, exclusive of Government transactions, amounted to Rs. 1,05,42,72,488, showing rather more than a recovery of the loss of 6 crores noticed during the preceding year. In 1890-91, the value reached nearly 105 crores, the highest amount ever recorded before the period now under review, and although this sum was exceeded during the year under report, it did not necessarily represent that the volume of trade had been larger, as the low rate of exchange ruling during the year considerably enhanced the value of both imports and exports. The following table gives the value of the aggregate sea-borne trade of the Port of Bombay with Foreign Countries and with Indian Ports, exclusive of Government transactions, for the ten years 1883-84 to 1892-93 :—

Year.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
Value ...Rs.	83,27,03,526	84,13,14,160	83,06,78,594	84,55,31,702	91,04,17,831	97,67,87,666	1,01,49,27,049	1,04,82,46,230	98,68,12,016	1,05,42,72,488

The total trade is divided into two classes—1 Foreign Trade, and 2 Coasting Trade.

Foreign trade implies all private trade of the Port of Bombay with Foreign External Countries. The value during the year amounted to Rs. 86,27,77,498, or 81·83 per cent. of the total trade. The percentage in the previous year was 81·11. There was an improvement on the preceding twelve months by over 6 crores, in which both imports and exports shared to an almost equal extent.

The following table shows the value of the trade for each year during the past ten years :—

	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
IMPORTS—										
Merchandise ...	20,75,09,401	21,40,74,393	21,96,64,314	23,42,25,186	25,26,02,607	26,38,38,591	26,34,11,170	27,61,21,600	25,71,63,900	25,22,43,422
Treasure	10,32,19,580	10,70,14,619	12,47,89,349	9,47,61,187	12,16,67,774	12,10,87,779	15,87,18,363	17,58,17,241	11,01,59,503	14,47,37,397
Total ...	31,07,28,981	32,10,89,012	34,44,53,463	32,90,86,373	37,42,70,381	38,49,26,370	42,21,29,533	45,09,38,841	36,73,23,303	39,69,80,819
EXPORTS—										
Merchandise ...	32,59,14,909	32,73,21,488	31,29,79,402	34,22,08,057	34,39,43,254	38,90,84,729	39,40,68,983	37,85,94,093	40,63,56,706	40,45,03,321
Treasure	69,44,209	1,25,02,873	90,32,183	1,24,86,366	1,13,09,162	1,45,48,420	1,56,67,905	1,68,28,786	2,67,11,697	6,12,93,358
Total ...	33,28,59,118	33,98,25,361	32,20,11,585	35,46,89,423	35,52,52,416	40,36,33,149	40,97,36,893	39,54,22,879	43,30,68,403	46,57,96,679
TOTAL OF PRIVATE (IMPORTS AND EXPORTS)—										
Merchandise ...	53,34,54,310	54,22,95,881	53,26,43,616	57,65,28,243	59,65,45,861	65,29,23,320	65,74,80,153	65,47,15,693	66,35,20,506	65,67,46,743
Treasure	11,01,63,789	11,95,17,492	13,38,21,432	10,72,27,553	13,29,76,936	13,56,36,199	17,43,86,268	19,26,46,027	13,68,71,200	20,60,30,755
Total ...	64,36,18,099	66,18,14,373	66,64,65,048	68,37,55,796	72,95,22,797	78,85,59,519	83,18,66,426	84,63,61,720	80,03,91,706	86,27,77,498

Treasure.—The most prominent feature in the trade was the large transactions in treasure. The value reached over 20½ crores of rupees, which was more than the previous year's figures by nearly 7 crores. The excess was equally divided between imports and exports. It is seldom that the exports of gold are in excess of the imports; this, however, happened in the year 1878-79, but since then and up to the end of 1891-92, the balance has yearly been on the other side, the total value of net imports during these thirteen years being over 38 crores. During the year under report, however, there was apparently a reaction, and the exports exceeded the imports by nearly 3 crores in value, and as the net imports in the previous twelve months came to 1½ crores, the total loss in gold was approximately 4½ crores. This large deficiency was fully replaced by receipts of silver, the net importations of which were valued at no less than 11¼ crores, or more than in 1891-92 by close upon 4½ crores. The transactions in gold and silver were carried on almost entirely with the United Kingdom. The actual net receipts of treasure underwent no change and remained at about 8¼ crores, which was considerably below the average of the past ten years. The increase noticeable in the foreign trade was entirely due to the heavier transactions in treasure.

Imports.—The value of the total imports was greater than that of the previous year by nearly 3 crores of rupees, caused entirely by unusually large receipts of silver. Merchandise by itself somewhat declined, and although the value was less by only 49 lákhs, there was apparently a considerable falling off in bulk. Cotton piece-goods, sugar, machinery and mill-work, copper, silk piece-goods, and coal, together represented half the total value of the trade, the first named alone contributing over one-quarter. The decline in the importations of cotton manufactures was large and important; the value of piece-goods was less than in 1891-92 by 71½ lákhs or 9½ per cent., and twist and yarn by 22 lákhs or 25 per cent., and as in the latter year there were smaller receipts in comparison with the year before by 10½ per cent. and 17½ per cent., respectively, the present decline meant a serious check to the trade. Receipts of "raw silk" and "wool manufactures," appeared also to have suffered much, and were valued at less by 26½ lákhs and 12 lákhs, respectively. "Grain and pulse" lost 9 lákhs, spices 6 lákhs, and the following over 4 lákhs each in value, viz., provisions, steel, ivory and ivoryware, and coal. The imports of sugar, oils and machinery and mill-work, which showed a falling off in 1891-92, were larger during the past twelve months, and considerably helped to swell the total value of the trade; there was also a good improvement in silk piece-goods. The increased values credited to these four articles did not, however, together much exceed the loss experienced in cotton manufactures. Cotton raw, jewellery, copper, and iron also helped in a lesser degree to enhance the value, although the latter showed a diminution in quantity.

Exports, Indian Produce.—Exports of Indian produce showed a small decline in value of about 27 lákhs of rupees, but in volume the falling off was, as in the case of imports, more apparent. The bulk of the trade, *i. e.*, about 87 per cent., represented raw cotton, seeds, twist and yarn, grain and pulse, and drugs and medicines (including opium). Although cotton, and twist and yarn, together showed the large increase in value of nearly 2½ crores,

the actual quantity shipped was larger by only 90,000 bales and 154 lákhs of pounds respectively, and seeds, which showed an improvement of 48 lákhs of rupees, were actually forwarded in smaller quantities than during the previous year. The most striking feature, however, in this branch of the exports was the great decline in shipments of "grain and pulse," the quantity having fallen by 66 lákhs of cwts., and the value by over 3 crores of rupees. Drugs and medicines represented a smaller value by 27 lákhs. Amongst minor articles of export, dyeing and tanning materials improved in value by over 23 lákhs, although there was a small decrease in quantity, and tea declined both in quantity and value by 15 lákhs of pounds and nearly 12 lákhs of rupees respectively.

Exports, Foreign Merchandise.—The trade in re-exports of foreign merchandise was carried on chiefly with Mozambique, Zanzibar, Mauritius, Aden, Arabia, Persia, and other countries out of Europe. The value was not quite 9 per cent. of the total foreign export trade. Although shipments of cotton piece-goods fell off this year by over 10 lákhs of rupees, they nevertheless represented nearly one-half of the trade. There was increased activity in the exports of refined sugar to Mozambique, Arabia, Persia, and Turkey in Asia, and the improvement of 13 lákhs of rupees under this head was the chief cause of the increase of 8 lákhs noticeable in the value of the whole trade. Unmanufactured ivory, which formed an important part of the shipments, showed a smaller value by nearly 4 lákhs. Raw wool, iron, and cotton twist and yarn, also represented a considerable portion of the trade; in the first two there was an improvement, and in the latter a falling off.

Exchange.—Exchange averaged 14·9*d.* for the year against 16·7*d.* in 1891-92.

Imports and exports.

The following table shows the value of merchandise and treasure interchanged in the last two years, 1891-92 and 1892-93, with the several countries with which the Port of Bombay has commercial relations :—

Countries.	Imports.		Exports.	
	1891-92.	1892-93.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.
United Kingdom ...	22,37,12,716	26,94,57,436	8,54,16,567	9,72,17,062
Austria	64,26,716	81,07,057	1,35,18,678	1,97,65,582
Belgium	70,00,613	84,92,732	3,14,72,320	3,15,59,796
France	80,38,077	95,24,593	7,21,54,283	5,97,67,505
Germany	56,17,211	71,89,289	1,77,85,580	2,73,91,410
Greece	1,683	1,194	98,956	4,640
Holland	99,761	3,50,213	71,11,105	47,92,012
Italy	28,96,836	30,64,359	2,37,50,226	2,75,31,146
Malta	65,050	32,376	3,94,998	1,19,589
Norway...	3,69,207	2,89,380	...	...
Portugal	5,836	3,098	2,12,765	1,89,000
Russia in Europe ...	147	.....	13,62,433	54,24,009
Spain—Gibraltar ...	90,453	1,16,231	77,520	12,20,022
Spain (excluding Gibraltar)	.....	.....	5,55,231	25,07,768
Sweden...	1,84,930	1,25,407	1,93,626	1,57,950
Turkey in Europe ...	6,932	15,023	25,344	84,969
Abyssinia	1,90,938	79,097	36,07,424	25,59,167
Cape Colony	1,873	250	...	...
Eastern Coast of Africa—				
Mozambique ...	3,98,567	9,84,674	26,66,076	80,79,906
Zanzibar	34,52,662	27,18,307	63,73,410	71,20,127
Other Ports	1,47,498	1,91,794	1,11,957	1,90,882
Egypt	18,40,059	19,51,886	79,04,511	44,15,647
Madagascar	2,11,807	2,62,366	3,650	13,111
Mauritius	1,17,09,008	1,16,18,483	23,90,948	1,16,02,411
Natal	456	1,864	5,20,465	3,69,486

Countries.	Imports.		Exports.	
	1891-92.	1892-93.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.
Reunion (Bourbon) ...	.....	.....	.....	5
Other Countries in Africa	.....	.....	4,000	...
United States... ...	72,67,203	21,47,373	85,596	4,26,874
Aden	33,92,904	16,29,730	80,65,279	84,45,378
Arabia—Muskat ...	30,21,481	35,03,091	57,66,427	63,40,904
" Other States.	42,18,636	47,98,434	29,16,206	30,93,063
Ceylon	10,14,059	7,49,637	69,16,618	49,06,093
China—Hongkong ..	2,83,20,542	2,34,66,839	4,70,35,907	4,99,28,264
" Treaty Ports...	1,61,41,311	98,17,498	4,28,49,815	4,88,16,862
Cochin China	12	.....	.....	114
Japan	4,74,947	7,21,950	1,25,25,845	1,33,55,687
Java	2,18,296	1,15,861	97,992	1,27,861
Maldives (except Minicoy)	.....	616	68,516	29,155
Mekran and Sonmiani	3,58,787	2,48,750	2,61,475	1,90,162
Persia	72,76,061	67,75,636	1,92,99,171	1,78,60,260
Philippines	4,072	22,242	937	.....
Russia in Asia... ...	46,76,613	54,69,672	.....	1,250
Siam	2,17,904	2,33,564	2,09,075	96,935
Straits Settlements ...	41,69,493	32,81,919	43,50,716	43,55,084
Sumatra	.....	.....	5,500	1,660
Turkey in Asia ...	46,27,525	35,87,200	56,71,855	56,57,875
Other Countries in Asia	.....	.....	61,606	14,359
Australia	93,03,891	69,92,999	1,58,864	1,99,478
Total ...	36,73,23,803	39,69,80,819	43,30,63,463	46,57,96,679

United Kingdom.—The value of the trade between Bombay and the United Kingdom was larger during the past year and represented 42·49 per cent. of the total foreign trade, against 38·62 per cent. in 1891-92. The improvement was, however, entirely due to more extensive transactions in treasure. Dealings in merchandise dwindled down from a value of nearly 28 crores of rupees in 1888-89 to 21 crores during the past twelve months. Both imports and exports shared in the loss to an almost equal extent. Cotton piece-goods, and twist and yarn, which represented the bulk of the imports, were taken in much smaller quantities, and showed a fall in value of nearly 1 crore or over 11 per cent., and in comparison with the average of the previous ten years the deficiency was 14 per cent. The trade in steel, iron, woollen manufactures, and coal, also fell off considerably, and the quantities received were less than in 1891-92 by 41, 27, 24, and 12 per cent., respectively. The only improvement of any note in the importations was in machinery and mill-work, the value of which was higher by 36 per cent. The most noticeable fluctuation in exports was a very large fall in the quantity of wheat in comparison with that of the previous twelve months, the deficiency amounting to 36 per cent., but the shipments in 1891-92 were comparatively heavy, and more than in 1890-91 by 72 per cent. Oil-seeds lost 27 per cent., but the exports of these also were very big last year, being more than twice as much as in the year before. Exports of raw cotton amounted to 2,83,556 cwts. only or 22 per cent. less than in the previous year. Exports of indigo were nine times larger. Transactions in treasure showed that gold exports exceeded the imports by over 3¼ crores of rupees, a very unusual occurrence. The net importations of silver came to nearly 11 crores, and more than in 1891-92 by 131 per cent.

The following tables show the value of Total Merchandise, Gold and Silver, also values or quantities of principal articles of Merchandise separately imported and exported from and to United Kingdom since 1887-88 :—

IMPORTS.

Years.	Total Merchandise.	Gold.	Silver.	Cotton—Piece-goods.	Cotton—Twist and Yarn.	Machinery and Mill-work.	Copper.	Coal.	Iron.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Cwts.	Tons.	Cwts.
1887-88	18,00,88,771	88,80,150	6,22,40,991	8,91,05,961	99,55,392	92,97,563	2,50,426	5,64,771	15,57,448
1888-89	18,62,16,663	1,03,00,437	5,90,63,035	8,13,00,602	98,75,569	1,12,31,509	27,571	6,27,238	13,10,036
1889-90	17,64,88,274	2,27,08,817	9,28,69,536	7,96,50,766	94,32,831	1,39,53,421	2,68,587	4,22,941	9,09,125
1890-91	19,50,12,560	3,43,61,667	6,95,52,452	8,33,47,681	1,07,00,464	92,67,963	2,34,472	6,19,965	10,59,025
1891-92	16,23,78,427	1,33,34,391	4,80,09,898	7,35,57,313	88,49,032	88,72,121	2,49,836	5,50,074	8,74,332
Total ...	89,01,54,715	8,95,75,462	32,17,35,912	38,59,70,743	4,88,13,908	5,26,33,577	10,30,892	27,85,789	57,16,966
Average...	17,80,30,943	1,79,15,092	6,63,47,182	7,71,94,149	97,62,782	1,05,34,715	2,06,178	5,57,158	11,43,793
1892-93	15,33,94,031	59,47,363	11,02,16,043	6,63,72,630	85,41,284	1,20,72,209	2,61,671	4,85,628	6,33,118
+ or —	—2,47,36,912	—1,19,67,780	+4,38,68,861	—1,08,21,519	—33,21,498	+15,47,494	+55,498	—71,530	—5,10,675

EXPORTS.

Years.	Total Merchandise.	Gold.	Silver.	Wheat.	Cotton—Raw.	Wool—Raw.	Seeds.	Hides and Skins.	Indigo.
	Rs.	Rs.	Rs.	Cwts.	Cwts.	Lbs.	Cwts.	Cwts.	Cwts.
1887-88	7,64,11,846	10,61,732	2,90,210	20,20,511	12,31,788	1,60,08,776	6,68,813	58,840	3,192
1888-89	9,26,13,726	26,76,207	3,27,246	46,31,166	11,85,331	1,46,52,904	12,59,742	75,073	1,266
1889-90	8,53,05,174	43,43,978	67,045	28,21,283	13,49,011	1,73,55,085	5,33,111	55,706	564
1890-91	8,68,67,690	67,77,681	3,01,304	31,07,119	8,72,425	1,52,37,870	4,58,200	47,622	1,290
1891-92	8,82,95,156	1,56,50,498	8,70,913	54,33,235	3,64,308	1,45,23,004	10,40,392	60,948	1,218
Total ...	39,00,13,602	3,05,10,096	17,56,718	1,84,13,314	51,02,863	7,77,77,639	39,60,318	3,81,188	7,792
Average...	7,80,02,720	61,02,019	3,51,344	36,82,662	10,20,573	1,55,55,528	7,92,044	56,237	1,558
1892-93	5,68,97,900	3,90,21,003	12,98,759	35,40,798	2,33,556	1,44,04,434	7,62,788	46,534	10,956
+ or —	—2,11,04,820	+3,29,18,984	+9,47,415	—1,41,865	—7,37,017	—11,51,094	—29,256	—9,703	—9,398

China.—Next to the United Kingdom, China enjoyed a far greater share in the trade than any other country, *viz.* 14·72 per cent. The Treaty Ports and Hongkong are included in this head. The trade lost in value by 5 per cent., caused entirely by smaller transactions in treasure. Imports contributed largely to the increase noticeable in merchandise, and consisted mainly of silk raw, silk piece-goods, tea, and refined sugar, the value of these four articles alone representing over 86 per cent. of this branch of the trade. The chief improvement was in refined sugar, which is imported entirely from Hongkong, and the quantity increased by 88 per cent. In the other two articles above mentioned there was a comparatively small increase. Over three-fourths of the total imports were from Hongkong. Indian cotton manufactures, consisting for the most part of twist and yarn, took a prominent place in the export trade in merchandise, representing over 62 per cent. of the total value, and an improvement on the previous year by 15 per cent. Exports of piece-goods to the Ports were more in quantity than in 1891-92 by 66 per cent. and than the average of the past five years by 74 per cent. The quantity of opium shipped to Hongkong during the period under review was only 13,021 cwts., which was less than in the previous year by 15 per cent., and than the average of the five years ending 1891-92 by 31 per cent. The shipments of this drug to the Treaty Ports were larger than those to Hongkong by 61 per cent., and although, in comparison with 1891-92, there was a loss of 9 per cent. in the quantity, there was nevertheless an improvement of 10 per cent. on the average of the past five years.

France.—France claimed 8 per cent. of the trade, or about double that of any other country, the United Kingdom and China excepted. The total value declined by 13 per cent. owing to restricted transactions in merchandise, especially in exports, but it was nevertheless larger than the average of the five years ending 1891-92 by 14 per cent. Nearly half of the value of imports represented silk piece-goods, pure and mixed, and the quantity received, although below that of last year, was well up to the average. Cotton piece-goods "coloured" showed an improvement in quantity of 29 per cent., and lead of 59 per cent. There were no fluctuations of any note in other articles. The bulk of the export trade was made up of oil-seeds, and in comparison with the previous year, the quantity was less, but the value was higher. The principal seeds shipped were linseed, groundnut, til or gingelly, rape, and castor. There was a smaller trade in all descriptions with the exception of groundnut, which showed an improvement of nearly 15 per cent. The exports of raw cotton, though nearly 13 per cent. larger than in the previous year, were not much above the average of former years. Wheat shipments fell off in quantity by the large amount of 64 per cent., but in 1891-92 the exports were exceptionally large. In treasure, gold showed lighter imports by nearly 6 lákhs of rupees and larger exports by 2½ lákhs, and the net imports of silver were 19½ lákhs against a net export the year before of 2½ lákhs.

Belgium.—The value of the trade with Belgium was about three-fifths of that with France. Imports consisted entirely of merchandise and continued to show the upward tendency which they have manifested for some years past. The chief articles imported were aniline and

alizarine dyes, sheet and plate glass, hardware and cutlery. There was no falling off anywhere of any importance. The value of exports remained stationary. Seeds took the most prominent position, and in quantity improved by 24 per cent. on last year, and 29 per cent. on the average of the five years ending 1891-92. The shipments of raw cotton were below the average of previous years. The trade in flour fell to 16,56,684 lbs., or 70 per cent. less than the preceding year. There was a very considerable falling off in both wheat and horns, especially in the former.

Germany.—The trade with Germany made great progress during the past twelve months. Imports improved by 26 per cent. and exports by 54 per cent. Refined sugar caused the increase under the first head, the imports being 137 per cent. larger than in 1891-92. There were increases in the alizarine dyes. On the export side raw cotton represented over 63 per cent. of the value of the trade. Shipments of this fibre were larger this year than last by 12 per cent. Wheat showed a large improvement. During the twelve months under review, the quantity shipped reached nearly 5¾ lákhs cwts. The trade in seeds also increased: til or gingelly was larger in quantity than in the previous year by 340 per cent., rape by 250 per cent., castor by 43 per cent., and linseed by 30 per cent., and the quantity of these descriptions forwarded in 1891-92 was considerably more than that of any preceding year. Exports of poppy seed were small, and less than in 1891-92 by 37 per cent. The trade in myrabolams, which sprang up only a few years ago, was represented by 73,961 cwts., or double that of the previous year.

Italy.—The transactions in merchandise with Italy showed an improvement in value of 11 per cent. Importations, however, did not contribute towards this, as there was a fall in them of 28 per cent., due to lighter receipts of various articles such as apparel, clocks and watches, cotton piece-goods, beads and false pearls, and silk piece-goods "pure and mixed." In aniline and alizarine dyes, however, there was an augmentation in the trade since the previous year of 57 per cent., but in nothing else of any note. Raw cotton, wheat, and seeds, represented practically the whole of the exports; nothing else, with the exception perhaps of indigo, was shipped in any appreciable quantities. The value of cotton exported was higher during the year by 38 per cent., but the quantity by only 22 per cent. and to this may be attributed the increased value of total exports; the shipments were, however, smaller than the average of the past five years by 4 per cent. Seeds showed a small improvement in quantity on account of slightly larger exportations of castor, rape, and gingelly; other descriptions such as linseed and groundnut represented a smaller trade. The transactions in wheat were small, and were less in volume than in 1891-92 by 34 per cent.

Austria.—There was a genuine and satisfactory improvement in the trade with Austria, and the value was greater than that of 1891-92 by 39 per cent. Imports of merchandise by themselves increased 23 per cent. in value, due to a larger and more valuable trade in cotton piece-goods "white and coloured," silk piece-goods "pure and mixed," woollen piece-goods, glass and glass-ware, and aniline and alizarine dyes. The receipts of silk goods were also more than twice as heavy as in the previous year. In apparel there was a drop in value of 16 per cent. and in minor articles of trade, such as cabinet-ware and furniture, hardware and cutlery, jewellery, copper, paper and pasteboard, and stationery, there were restricted transactions. On the export side there was an improvement of 24 per cent. Raw cotton represented 95 per cent. of the total value; it was shipped in larger quantities than in the previous year by 13 per cent., but was still below the average of the previous five years by over 9 per cent. Myrabolams increased 19 per cent., and 20,995 cwts. of gingelly seed were exported against nothing the year before. In treasure, silver showed a net import value of 13¾ lákhs of rupees, and gold a net export of 29 lákhs. The gold exports of 1891-92 were almost nil.

Holland.—There was only a small trade with Holland. Imports consisted almost entirely of aniline and alizarine dyes. In 1886-87 the trade in these dyes amounted to only 36,000 ozs., but in the following year the quantity rose to 2,46,400 ozs., and since this receipts have varied considerably, but have never approached those of the year under report when they amounted to 62,31,280 ozs. Exports were represented principally by linseed and wheat, 6,33,129 cwts. and 51,444 cwts. respectively, a falling off from the previous year's shipments of 28 per cent. in the former and 81 per cent. in the latter. No wheat was exported during the three years ending 1890-91, and the average quantity of linseed forwarded during the past five years was 4,43,920 cwts.

Russia in Europe.—There was no import trade with Russia in Europe, but to the port of Odessa there was an export trade valued at 54¼ lákhs of rupees. Raw cotton represented nearly the whole of it, the quantity shipped being 1,83,670 cwts., or nearly four times that forwarded in the previous year, and more than the average of the five years ending 1891-92 by 91 per cent. The export of myrabolams, and oil-seeds, though not large, showed a very considerable improvement on former years.

Persia.—With the exception of China, Persia has a larger share of the trade with Bombay than any other country out of Europe, the percentage being 2·85 out of the total foreign trade. During the year under report transactions with this country were curtailed in all directions. Imports of merchandise receded in value by 3 per cent. Fruits and vegetables "other sorts" represented an important item in this branch of the trade. The total value came to over 11 lákhs of rupees. Raw cotton was also a chief import; it was shipped principally from Bushire, and Bundar Abbas; the quantity received during the year was less than

in the previous year by 3,122 cwts., but the value was greater. Imports of raw wool increased in quantity 12 per cent., dates 24 per cent., precious stones and pearls 23 per cent., but in raw skins, seeds, assafœtida, wool manufactures (carpets, &c.), &c., there was a much smaller trade, and receipts of wheat were practically nil against 75,530 cwts. in the previous year. The export trade fell 7 per cent. It consisted largely of cotton piece-goods "coloured, printed or dyed," "grey," and tea, all foreign merchandise. The two descriptions of piece-goods were forwarded in smaller quantities by 14 and 27 per cent. respectively, whilst tea showed an improvement of 4 per cent. Shipments of foreign refined sugar nearly doubled. Most of the articles of minor importance showed a smaller trade. In exports of Indian produce, tea took the first place, although there was a large fall of more than one-half the quantity shipped in 1891-92. In this latter year shipments were exceptionally large and considerable stocks remained on hand in Persia. In cotton "piece-goods," "twist and yarn," rice and indigo, there was also a restricted trade. Transactions in treasure were not large, and consisted chiefly of silver, the imports and exports of which decreased.

Mauritius.—With the island of Mauritius there was a large import trade in refined sugar, amounting during the year under report to 7,71,923 cwts. or 60 per cent. of the total receipts of this article into Bombay from foreign countries. The imports, however, showed a considerable falling off, and were much smaller than they had been during the previous eight years. The late cyclone caused considerable damage to the crops and interfered much with the exportation of sugar from the island. Imports of cocoanut oil more than doubled and were above the average of the five years ending 1891-92. Nothing else was received of any importance. The chief export was flour, ground presumably in Bombay. The quantity shipped has increased yearly from 58¾ lákhs of pounds in 1887-88 to 147 lákhs in the year under report. Piece-goods "grey, white, and coloured," of foreign manufacture, were forwarded in larger quantities by 22 per cent., and other articles—notably rice, pulse and grain "other sorts"—also showed a bigger trade. There were during the year large exportations of silver, made by a bank in Bombay at the request of the Crown agents for the colonies in London. They were in connection with a loan granted by the Home Government to that of Mauritius at the time of the distress caused by the hurricane.

Arabia.—The trade with Arabia was carried on with the ports of Muskat, Bahrein, Shore, Jedda and Hodeida, but chiefly with the first named. Imports of merchandise were valued at 33½ lákhs of rupees, an improvement of 23 per cent. on 1891-92. The principal articles consisted of precious stones and pearls, fishmaws and shark-fins, dates, and salted fish. Receipts of the first named increased in value by 79 per cent., and of the second by 30 per cent. in quantity; they were considerably above the average of the five years ending 1891-92; in the other two articles the trade was lighter than in the year before, but was about equal to that of previous years. Imports of salted fish were exceptionally heavy in 1891-92. Cotton piece-goods "grey, white and coloured," chiefly of foreign manufacture, took a prominent place in the export trade. The foreign goods were sent principally to Muskat, and the quantity during the year reached 9,355,857 yards, being 6 per cent. less than in the previous year, but nearly 8 per cent. more than the average of the quinquennial period ending 1891-92. Indian manufactured goods were distributed amongst all the ports, and aggregated 3,482,437 yards, an improvement of 9 per cent. in the previous year, and 43 per cent. in excess of the average of the last five years. The quantity of rice, also an important article of export, exceeded that of the preceding year by 18 per cent. Exports of jowári and bájri were nearly double those of 1891-92, but were below the average of the five preceding years. Woollen manufactures also fell off, owing probably to the exceptionally heavy shipments of the previous year. Transactions in treasure were not large, net imports of gold being 20½ lákhs of rupees and of silver 11 lákhs.

Japan.—The import and export trades in merchandise with Japan rose in value over the previous year by 5½ and 6 per cent. respectively, and also showed the very satisfactory improvements on the averages of the quinquennial period ending 1890-91 by 268 per cent. in the imports and 73 per cent. in the exports. Imports have increased of late years owing chiefly to the development of the trade in raw silk, silk piece-goods, apparel, cabinet-ware and furniture, and Chinese and Japanse ware, in all of which, with the exception of the last named, there was a larger trade during the year than in 1891-92. An entirely new trade sprang up during the year in matches, the value of the lot received being Rs. 3,492. Export were made up almost entirely of raw cotton, and cotton twist and yarn, of Indian produce and manufacture. Shipments of the raw material have made rapid strides since 1888-89, but represented a small falling off in quantity in the year under report when compared with 1891-92, although the value was greater. In the manufactured article, the trade improved during the year, but the average of the exports for the three years ending 1892-93 showed the large fall in quantity of 58 per cent. when compared with that of the three preceding years.

Zanzibar.—The whole trade with Zanzibar was valued at little less than 100 lákhs, out of which treasure represented 15 lákhs, and imports and exports of merchandise 22¼ and 60¾ lákhs respectively. Cloves and ivory "unmanufactured" accounted for three-fourths of the importations, but both showed signs of a declining trade, especially the latter, which was less in quantity than in the previous year by 40 per cent., and than the average of the quinquennial periods ending 1891-92 and 1886-87 by 41 and 34 per cent., respectively. Cloves fell 14 per cent. from 1891-92, and were less than the average of the five years ending with that year by 29 per cent. The remaining one-fourth of the imports was made

up of miscellaneous articles, the chief of which were cocoanut kernel or kopra, and horns. The outward trade from Bombay was composed largely of cotton piece-goods of both Indian and foreign manufacture, the latter predominating. Of the foreign goods, "coloured" were by far the most important, the exports amounting to 85½ lákhs of yards, which was rather more than those of the year before and on a level with the average of late years. Indian goods of this description did not appear to be in much request, but, on the other hand, Indian piece-goods "grey" were shipped up to 143 lákhs of yards against only 10 lákhs of the foreign article. Rice, ghee and flour were also exported in comparatively large quantities, the last named having increased much in importance since 1886-87 when the shipments were only 7¾ lákhs of pounds. The trade in ghee also developed greatly, and the transactions in the article during the year were far larger than those of any previous year. Imports of gold were less, and of silver more, but the quantity in each case was small. Net exports of silver came to close upon 6 lákhs.

Turkey in Asia.—There was not much activity in the trade in merchandise with Turkey in Asia during the twelve months under review, and the value was nearly 16 per cent. less than that of the year before. Horses were imported in smaller numbers from Bussorah, but the trade in them has considerably increased of late, the number received during the five years ending 1891-92 was 9,996 against only 3,116 for the five years ending 1886-87. Wheat and dates, which also come from the above port, and form a large part of the trade, were received in smaller quantities by 59 and 12 per cent. respectively. Imports of the former fluctuate very much, in some years they are large and in others insignificant. Receipts of ghee from Bussorah and Bagdad were less than two-fifths of what they were in 1891-92, but in that year they were exceptionally heavy. A new trade sprang up in jowári and bájri with Bussorah in 1891-92, the quantity imported being 63,610 cwts., but this was reduced to 43,060 cwts. during the past twelve months. The exports were composed largely of cotton piece-goods "coloured" and "grey;" the former were almost entirely of foreign manufacture and in the larger quantity; the latter were more evenly divided between foreign and Indian. There was a decline all round, and the trade in foreign goods was below the level of former years. Twist and yarn of Indian manufacture was forwarded in smaller quantities. The average shipments for the quinquennial periods ending 1891-92 and 1886-87 were 6½ lákhs and 1 lákh of pounds, respectively, and the figures for the present year were 7½ lákhs. Exports of tea, both Indian and foreign, dropped very considerably, an occurrence which might have been expected after the big shipments in 1891-92. The number of gunny bags (power-loom) exported, principally to Bussorah, has increased yearly from 55,220 in 1886-87 to 959,850 during the year under review. Transactions in gold were insignificant, and those in silver represented a net export of 11¼ lákhs of rupees.

Straits Settlements.—With the Straits Settlements (Penang and Singapore) there was an import and export trade in merchandise valued in the one case at 32½ lákhs and in the other at 38¾ lákhs of rupees, showing a decline on the year before by 21 and 7¾ per cent. respectively. The fall in imports was due to a restricted trade in betelnuts by 61 per cent., raw silk by 31 per cent, and in coffee and pepper by 59 per cent. in each case. The receipts of the first three articles were unusually heavy in 1891-92, pepper also was double in that year of what it was in the year before, but not above former years. Tin was imported in larger quantities by 10 per cent. Nutmegs improved by 24 per cent. One of the chief exports was cotton piecegoods "coloured" of foreign manufacture, and shipments increased in quantity on 1891-92 by 34 per cent., and on the average of the quinquennial period ending with that year by nearly 6 per cent. The chief export, however, in Indian cotton manufactures was twist and yarn. The quantity shipped in 1891-92 was very heavy, viz. 39 lákhs of pounds, nearly double that of the year before, but the markets seem to have been overstocked, with the result that during the twelve months under review the trade fell off by 57 per cent. The next export in order of importance comes under the heading "books and printed matter," and consisted largely of copies of the Korán and other Muhamadan religious books; the value was put down at 1¼ lákhs of rupees, or little less than the year before. Dealings in gold were very small, silver imports were nil, and exports nearly 3¾ lákhs.

Ceylon.—There was only a small trade with the Island of Ceylon. Imports of merchandise, consisting mainly of tea, cardamoms, cocoanut oil, and coffee, fell in value by 32 per cent. Imports of cocoanut oil were considerably below the average of the previous five years. The increase in the value of exports was 5 per cent. and was due to more activity in shipments of Indian produce, consisting principally of flour, pulse, rice, and gram, which showed a larger trade in quantity than the year before by 16,42,132, and 56 per cent. respectively. In wheat, there was a fall. Exports of cotton piece-goods were confined almost entirely to those of foreign manufacture, and in "grey" only there was a small increase; other descriptions showed a decline. Silk piece-goods, and woollen piece-goods, both of foreign manufacture, were also shipped in lighter quantities. There were no transactions in gold, and silver exports declined by 21¼ lákhs or 46 per cent. Imports were insignificant.

United States.—With the States the transactions in merchandise increased in value from 16 to 22 lákhs of rupees. Imports of kerosine oil improved 79 per cent., but were not above the average of former years; the receipts in 1891-92 were exceptionally light. Cotton piece-goods "grey," tobacco, and clocks and watches, all showed a smaller trade. Exports were generally insignificant, but during the year there were various articles in the trade, such as cabinet-ware and furniture, earthen-ware and porcelain, jewellery, natural curiosities,

toys and requisites for games, &c., which were shipped in connection with the Chicago Exhibition. The following table shows the distribution of the foreign trade in merchandise with the Port of Bombay during the past ten years :—

Countries.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
United Kingdom ...	45·43	44·85	45·57	41·85	43·01	42·71	39·80	38·53	34·86	32·005
China	15·80	16·30	16·53	17·33	16·60	15·58	15·78	17·24	17·12	18·007
France	9·91	9·72	8·15	8·43	6·13	9·09	7·97	7·95	11·84	9·98
Belgium	4·56	4·62	5·18	4·72	4·79	5·76	6·89	6·20	5·80	6·08
Germany	·87	·40	·22	·31	·33	·67	2·25	4·20	3·54	5·27
Italy	4·82	4·86	5·03	7·20	5·83	4·45	5·25	4·51	4·01	4·51
Austria	3·15	3·43	3·10	3·91	3·83	4·02	4·03	3·78	2·86	3·59
Persia...	3·29	3·20	3·27	2·95	3·02	2·99	3·44	3·40	3·73	3·52
Mauritius	·34	3·20	2·28	2·61	2·23	2·10	2·38	2·24	2·07	2·18
Japan	·48	·48	·52	·67	1·18	1·47	1·77	1·13	1·96	2·14
Arabia...	1·38	1·34	1·64	1·75	1·64	1·54	1·51	1·39	1·47	1·69
Aden	1·15	1·16	1·10	1·11	1·37	1·30	1·25	1·14	1·17	1·29
Zanzibar	1·13	1·01	1·15	1·39	1·71	1·54	1·45	1·57	1·33	1·42
Turkey in Asia ...	·79	·76	·80	·76	·93	1·08	1·06	·95	1·38	1·17
Straits Settlements ...	·92	1·04	1·02	·94	1·06	1·16	1·15	1·02	1·26	1·09
Egypt	1·84	·84	1·18	1·48	·77	·85	·57	·79	1·31	·88
Russia in Europe ...	·24	·20	·17	·46	·66	·66	·37	·35	·21	·83
Russia in Asia ...	...	...	...	·11	·17	·74	·74	·79	·70	·82
Holland	·39	·60	·73	·54	·53	·43	·18	·47	1·09	·77
Spain	·40	·24	·46	·29	·32	·29	·20	·29	·11	·59
Mozambique	·39	·29	·35	·34	·44	·41	·45	·42	·43	·55
Ceylon...	·24	·17	·39	·36	·48	·34	·42	·45	·33	·46
Abyssinia	·0085	·06	·10	·19	·16	·07	·20	·41	·40	·40
United States ...	·54	·74	·71	·59	·35	·35	·36	·30	·25	·34
Australia	·12	·06	·18	·10	·76	·06	·10	·06	·08	·11

Articles imported and exported from foreign countries.

The following statement shows the principal articles imported and exported in 1892-93 compared with 1891-92 :—

Articles.	Imports.		Exports.		
	1891-92.	1892-93.		1891-92.	1892-93.
	Rs.	Rs.		Rs.	Rs.
Apparel (including Boots and Shoes and Military Uniforms and Accoutrements) .	52,58,704	49,13,953	Indian ...	4,74,273	5,48,849
			Foreign ...	6,12,486	7,68,171
Articles imported and exported by post ...	23,14,351	24,50,633	Indian ...	14,16,722	15,57,387
			Foreign ...	91,267	85,305
Building and Engineering Materials ...	5,39,190	3,87,092	Indian ..	4,040	5,342
			Foreign ...	9,909	8,931
Cabinetware and Furniture	6,26,843	4,65,947	Indian ...	2,36,144	3,83,437
			Foreign ...	85,571	83,617
Chemical Products and Preparations ...	11,05,810	13,06,743	Indian ...	32,166	14,069
			Foreign ...	73,965	66,493
Clocks and Watches	9,09,670	7,07,460	Indian ...	.....	.....
			Foreign ...	33,761	33,664
Coal	89,92,824	85,28,001	Indian ...	235	144
			Foreign ...	15,566	1,118
Coffee	12,45,755	4,87,698	Indian ...	12,50,358	6,54,461
			Foreign ...	2,47,491	1,51,365
Coir—Manufactures (excluding Ropes)	503	2,182	Indian ...	4,18,150	2,51,084
			Foreign ...	.....	.....
Cotton—Raw	17,72,521	26,08,807	Indian ...	8,53,61,852	10,37,01,509
			Foreign ...	92,469	1,875
Do. Twist and Yarn	89,01,847	66,62,222	Indian ...	5,55,55,451	6,14,08,869
			Foreign ...	9,33,856	8,00,467
Do. Piece-goods	7,58,32,518	6,86,71,624	Indian ...	73,00,109	78,69,227
			Foreign ...	1,68,75,433	1,58,34,128
Drugs, Medicines and Narcotics (including Opium and Tobacco)	24,61,844	24,72,034	Indian ...	3,65,59,599	3,38,50,837
			Foreign ...	3,26,171	3,87,217
Dyeing and Tanning Materials (including Cutch and Gambier and Lac-Dye) ...	47,80,708	53,54,934	Indian ...	42,60,646	65,70,896
			Foreign ...	1,75,204	2,10,729
Glass and Glassware	38,52,200	37,07,168	Indian ...	35,483	51,379
			Foreign ...	3,79,769	3,85,485
Grain and Pulse	19,13,726	9,92,986	Indian ...	8,12,34,880	5,05,62,085
			Foreign ...	15,600	21,030
Gums and Resins (excluding Cutch and Gambier)	8,56,835	8,33,078	Indian ...	7,52,455	7,84,443
			Foreign ...	6,85,282	6,69,482
Hardware and Cutlery (including Plated-ware)...	51,92,543	51,65,239	Indian ...	38,948	44,328
			Foreign ...	5,32,292	5,29,883
Hides and Skins	7,26,960	6,17,610	Indian ...	57,25,846	53,48,092
			Foreign ...	6,990	60
Horns	50,823	31,460	Indian ...	21,70,947	16,29,130
			Foreign ...	45,084	29,909
Ivory and Ivory-ware	27,59,787	23,56,843	Indian ...	.....	.....
			Foreign ...	15,12,800	11,18,655
Jewellery, &c.	19,58,965	26,35,358	Indian ...	1,97,993	2,83,563
			Foreign ...	1,76,467	1,49,963
Leather (excluding Boots and Shoes) ...	11,91,200	10,38,771	Indian ...	12,148	1,73,836
			Foreign ...	32,838	48,989

Articles—*continued.*	Imports. 1891-92.	Imports. 1892-93.	Exports.	Exports. 1891-92.	Exports. 1892-93.
	Rs.	Rs.		Rs.	Rs.
Liquors—Ale, Beer and Porter	11,20,825	8,99,825	Indian ...	.....	.....
			Foreign ...	4,744	2,175
Do. Spirits	20,27,461	19,47,916	Indian ...	.....	210
			Foreign ...	15,140	13,127
Do. Wines and Liqueurs	10,27,614	9,29,966	Indian ...	.....	.....
			Foreign ...	50,573	17,367
Do. Other sorts	1,578	1,609	Indian ...	.....	.....
			Foreign ...	16	30
Machinery and Mill-work	89,56,606	1,21,09,749	Indian ...	570	300
			Foreign ...	50,180	66,930
Manures	13,728	4,837	Indian ...	9,62,047	9,71,046
			Foreign ...	.....	.....
Metals—Brass...	3,36,460	3,23,034	Indian ...	2,04,295	2,19,868
			Foreign ...	21,221	25,321
Do. Copper	1,07,71,079	1,13,21,763	Indian ...	96,364	1,37,701
			Foreign ...	6,51,807	7,65,085
Do. Iron	66,98,396	72,09,991	Indian ...	75,964	81,492
			Foreign ...	6,75,626	8,35,434
Do. Lead	2,56,929	2,27,196	Indian ...	3,105	1,872
			Foreign ...	48,670	63,858
Do. Quicksilver	1,67,776	2,19,188	Indian ...	.....	.....
			Foreign ...	7,137	11,326
Do. Steel...	19,56,582	14,58,271	Indian ...	.....	.....
			Foreign ...	34,395	24,136
Do. Tin	7,46,803	9,79,876	Indian ...	.....	.....
			Foreign ...	1,53,037	2,53,579
Do. Zinc or Spelter	6,37,969	6,54,239	Indian ...	.....	.....
			Foreign ...	5,185	6,241
Do. Other sorts	3,08,876	2,35,081	Indian ...	2,372	1,535
			Foreign ...	8,129	11,940
Oils	62,59,970	76,58,930	Indian ...	3,56,491	5,88,075
			Foreign ...	1,35,383	56,322
Paper and Pasteboard	25,27,432	22,54,598	Indian ...	28	125
			Foreign ...	59,143	73,182
Provisions	69,24,783	64,56,555	Indian ...	47,85,041	46,88,316
			Foreign ...	9,76,765	12,35,815
Railway Plant and Rolling Stock	52,59,707	56,56,130	Indian ...	.....	.....
			Foreign ...	.....	4,365
Seeds	4,34,854	3,40,988	Indian ...	6,64,60,388	7,12,63,858
			Foreign ...	20,766	23,323
Shells and Cowries	2,00,499	4,67,729	Indian ...	62	70
			Foreign ...	1,52,347	3,95,671
Silk—Raw	1,05,71,865	79,16,725	Indian ...	22,512	14'962
			Foreign ...	3,61,535	3,70'784
Do. Piece-Goods (including mixed goods).	94,71,676	1,07,69,554	Indian ...	3,61,517	3,70'621
			Foreign ...	6,02,975	7,10'510
Spices	23,97,126	17,85,242	Indian ...	12,85,041	15,49'980
			Foreign ...	2,63,796	2,75'491
Sugar, Refined and Unrefined	1,41,57,823	1,81,63,786	Indian ...	3,23,389	3,14'207
			Foreign ...	18,54,079	31,87'929
Tea	42,53,588	42,62,049	Indian ...	20,24,945	8,42,859
			Foreign ...	31,56,153	32,79,166
Umbrellas	10,72,790	12,05,773	Indian ...	.....	.....
			Foreign ...	58,884	64,513
Wood—Ornamental—Sandal-wood ...	688	538	Indian ...	4,73,280	2,61,187
			Foreign ...	.....	.....
Wool—Raw	7,25,336	8,50,526	Indian ...	68,50,763	68,58,317
			Foreign ...	8,50,992	8,64,765
Do. Manufactures	72,52,304	60,49,932	Indian ...	3,72,734	6,07,686
			Foreign ...	7,25,734	5,41,105
All other articles	1,73,92,826	1,74,83,786	Indian ...	33,27,230	36,06,667
			Foreign ...	14,25,510	16,08,959
Total ...	25,71,63,036	25,22,43,422	Indian ...	37,10,26,583	36,93,33,816
			Foreign ...	3,53,30,183	3,61,69,505
Treasure.					
Gold	3,15,48,579	1,35,27,484	.....	1,58,66,494	4,23,50,324
Silver	7,86,10,924	13,12,09,913	.....	1,08,45,203	1,89,43,034
Total ...	11,01,59,503	14,47,37,397	.....	2,67,11,697	6,12,93,358
Grand Total ...	36,73,22,539	39,69,80,819	.....	43,30,68,463	46,57,96,679

Apparel.—The imports of apparel decreased in value by 6 per cent. It was received principally from the United Kingdom and in smaller quantities from Austria, France, Egypt, Germany and Hongkong. From the two last named countries alone there was an increase. This heading may be divided into three sub-heads, *viz.*, "apparel proper," "boots and shoes" and "military uniforms." In the first two items there was a fall of 7 and 5 per cent. respectively, and in the last an improvement of 35 per cent. The various articles coming under the heading of "apparel proper" were not registered separately, but it was reported that the decline under this sub-head was caused chiefly by lighter importations of gold thread from Austria and Egypt.

Remarks on Foreign import and export trade.

Coal.—The import trade in coal was carried on almost entirely with the United Kingdom; the only other country from which any was received was Australia, and thence only to a very small extent, *viz.* 1 per cent. of the total imports. The decline of 10 per cent. noticeable in the trade was accounted for principally by heavier receipts of country coal from the port of Calcutta; the quantity received in 1891-92 was only 205 tons, against 50,322 tons during the twelve months under review, the increase being almost equivalent to the lesser imports from foreign countries. The demand for coal was also somewhat reduced on account of factories having, as rule, ceased to work on Sundays throughout the year.

Coffee.—The trade in coffee was not very satisfactory, and imports showed a decline in quantity by 60 per cent. The berry is usually imported into Bombay from the Straits Settlements and Ceylon, but that received from the latter country is yearly falling away on account of planting being discontinued there in favour of tea and cardamoms. Most of the coffee grown in the Settlements was during the year under review sent direct to Europe owing to the favourable prices ruling there, and little only was available for shipment to Bombay. Re-exports also, in sympathy with imports, decreased and were less by 38 per cent. The chief markets were found in Muskat, Persia, Mauritius and Turkey in Asia, all of which countries took less. The exports of Indian coffee were likewise smaller by 27 per cent. The general decline in the trade was attributed to short crops both in India and the Straits Settlements.

Raw Cotton showed a larger trade throughout, and imports by themselves improved in quantity by 31 per cent. The fibre was imported, during the year, chiefly from Persia, and in smaller quantities from Egypt, the United Kingdom, Muskat, and Mekran and Sonmiáni. The quantity received from Egypt was 28,548 cwts., or more than four times that of the year before, and from the United Kingdom (American cotton) 19,550 cwts., an improvement of 84 per cent. The value of cotton exported the during year represented 28 per cent. of the total value of exports of Indian produce, and the quantity was more than that of 1891-92 by 8 per cent., but less than the average of the decennial period ending with that year by 7 per cent. This was mainly due to the increase in the receipts of Bengal cotton into Bombay for subsequent shipment which exceeded those of 1891-92 by over 87,000 bales of 3½ cwts. each. The United Kingdom, Hongkong and Japan took less cotton than in the previous year by 22, 67, and 8 per cent. respectively. Nearly all other countries received more, particularly Russia in Europe (Odessa), which took nearly three times as much. Italy, Germany and Austria improved their trade in the staple by 22, 12, and 13 per cent. respectively.

Cotton Piece-goods.—The most important of all imports are cotton piece-goods. During the year under review they represented a value of 27 per cent. of the total imports, which was exactly the same percentage that raw cotton took amongst the exports. The trade was dull, and lacked activity throughout the year. In value there was a fall of 71 lákhs of rupees, or 9 per cent. in comparison with that of 1891-92, and in this latter year the value was again less than that of the preceding year by nearly 91 lákhs; thus in two years the imports have declined by about 162 lákhs. During the twelve months under review there were several causes at work to disturb the trade, the chief of which was the continued fall in the rate of exchange, the strike of the mill operatives in Manchester, and a sudden rise in the rates of the raw material in the latter part of the year. All these had the effect of raising the prices of the goods and placing them beyond the means of consumers. "Grey," and "white goods" arrived in smaller quantities by 11 and 4 per cent. respectively, but "coloured" showed a larger trade by 8 per cent. The falling off in imports restricted the re-exports, which became smaller in value by 6 per cent., but the deficiency was made up in larger exports of Indian piece-goods by 7 per cent. Coloured goods of foreign manufacture were re-exported in much larger quantities than any other foreign description, for the reason before stated that the manufacture in Bombay was limited. Persia took a far larger quantity than any other country, not only of "coloured" but of "grey" and "white" also. Of the Indian made fabrics "grey sheetings" were exported in the largest quantities; but they showed a falling off during the year of 10 per cent. The principal markets were found in Zanzibar and Mozambique. Grey T cloth, which was also largely shipped, improved 23 per cent.; it was taken chiefly by the Treaty Ports, Zanzibar and Mozambique; the first two took more by 37 and 18 per cent. respectively, and the last less by 13 per cent.

Cotton Twist and Yarn.—The receipts of cotton twist and yarn fell off in quantity by 24 per cent. owing to the same causes which influenced the imports of piece-goods. Dyed yarn likewise showed a much smaller trade, caused no doubt, to some extent, by the process of dyeing being carried on with more activity locally. Re-exports were not large, and were less than the year before by 19 per cent.; more than one-half was taken by Persia, and smaller quantities by Muskat, Aden, and Zanzibar. The quantity exported increased by 9 per cent., and was nearly all forwarded to China ports. The shipments to Japan fell very considerably, owing, it is believed, to the construction of spinning mills there.

Dyeing and Tanning Materials.—Aniline and alizarine dyes represented a value of 43¾ lákhs of rupees, or 81 per cent. of the total imports of dyeing and tanning materials. They were received chiefly during the year under review from Belgium to the extent of 561 lákhs of ounces, or twice the average of the quinquennial period ending 1891-92. From Austria 89 lákhs were imported, or six times the average for the same period, and the United Kingdom forwarded 73 lákhs, or only one-half of the above average. The receipts

from Holland rose from 8 lákhs in 1891-92 to 62 lákhs in the period under review. The re-exports of these dyes, although considerably larger than during the previous year, were still small. They were sent chiefly to Turkey in Asia. Exports of Indian materials consisted principally of myrabolams, which represented in quantity 92 per cent. of this trade. The shipments were smaller than in 1891-92 by 7 per cent. The United Kingdom took the largest quantity, but less than in the previous year by 26 per cent. Germany received twice as much, and Austria more by 19 per cent. Other countries took smaller quantities, but there was an improvement in every case.

Grain and Pulse.—The importations of grain and pulse are not, as a rule, large, and compared with the previous year there was a falling off by 46 per cent. Wheat, forwarded chiefly from Turkey in Asia and in smaller quantities from Persia, generally represents the bulk of the trade. The former country sent less by 59 per cent. during the year than in 1891-92, but considerably more than the average of the five years ending 1890-91. The imports in 1891-92 were exceptionally large owing to the favourable prices obtainable in Bombay on account of the good demand for the cereal in Europe. In the export trade of Indian wheat there was a large drop of 43 per cent. in quantity when compared with 1891-92, but in this latter year shipments had been much stimulated on account of the failure of the Russian crops. On comparing the exports of the year under report with the average of the quinquennial periods ending 1890-91 and 1885-86, a deficiency of 5 and 12 per cent. respectively is perceptible. Shipments of jowári and bájri fell away by about one-half. The chief markets for this grain are found in Abyssinia, but less went there during the year under review by 19 per cent. The United Kingdom and Germany also took a smaller quantity, whilst with Belgium, France, and Italy, the trade ceased.

Liquors.—The trade in liquors may be divided into three sub-heads—(1) ale, beer and porter, (2) spirits, (3) wines and liqueurs. *Ale, beer, and porter* showed a fall in quantity of 19 per cent. They are received principally from the United Kingdom, and to a small extent from Germany. From the former country less in quantity was received than in 1891-92 by 19 per cent., but more than the average of the quinquennial period ending with that year by 25 per cent. From the latter country receipts were smaller by 23 per cent., but on the above average they represented an improvement of 19 per cent.

Spirits.—Whisky is now imported in larger quantities than any other spirit; the total for the year was 117,469 gallons, or more than in 1891-92 by nearly 7 per cent., and than the averages of the quinquennial periods ending with that year and 1886-87 by 16 per cent. respectively. It was nearly all received from the United Kingdom.

Brandy showed an import of 100,346 gallons, or a fall of 4 per cent., and less than the averages of the above periods by 18 per cent. and 21 per cent. respectively. Receipts of rum were 3,349 gallons or smaller by 13 per cent., and also less than the averages of the periods mentioned by 53 per cent. and 79 per cent.

Wines and Liqueurs.—Beverages coming under this sub-head showed a decline all round, more particularly champagne, claret, and sherry, which were imported in decreased quantities by 23 per cent., 31 per cent., and 11 per cent. respectively, but in all of these there was an increase in 1891-92 on the imports of the preceding year. In port wine, and liqueurs, the fluctuations were very small.

Machinery and Mill-works.—The receipts of machinery and mill-work into Bombay increased in value since the previous year by 35 per cent. Nearly the whole of it was received from the United Kingdom.

Metals.—The most important of the metals imported are iron, steel, copper, tin, and quicksilver. There was a decline in quantity in the trade of the first two by 1 per cent. in the one case and 30 per cent. in the other, and an improvement in the latter three by 3, 10 and 40 per cent. respectively.

Iron was imported chiefly from the United Kingdom and in smaller quantities from Belgium, but the latter country, with a metal somewhat inferior in quality and cheaper in price, is rapidly driving the English iron out of the market. In 1882-83, or ten years ago, the United Kingdom forwarded 11¼ lákhs cwts. against Belgium's 11,000 cwts., and for the year under review, the former country sent 6¼ lákhs or little more than half the above, and the latter 4¾ lákhs or forty times as much.

Steel was received from the United Kingdom and Belgium in almost equal quantities. Ten years ago the first-named country forwarded forty-one times as much as the latter, and although since then the United Kingdom has slightly improved her exports, she has not made nearly such rapid progress in the trade as Belgium has. During the period under review the receipts from the United Kingdom fell by 41 per cent., whilst those from Belgium receded by only 1 per cent.

Copper.—Nearly the whole of this metal is imported from the United Kingdom; the fluctuation was small, and calls for no special remarks.

Tin.—Imports improved in quantity by 10 per cent., and were about equal to the average of the past five years. Nearly the whole quantity was received from the Straits Settlements.

Quicksilver.—The United Kingdom was the principal country from which this metal is drawn, and although receipts from that country, this year, improved by 3 per cent., they were still below the average of former years.

A quantity of iron, equal to 23 per cent. of the imports, was re-exported, chiefly to Persia, Turkey in Asia, and Hongkong. Copper also to the extent of 17,697 cwts. was re-exported, principally to Persia, Arabia, and Turkey in Asia. Re-exports of tin represented in quantity more than one-fourth of the imports; it was taken to a large extent by Persia and Turkey in Asia.

Oils.—There was an improvement in the importation of oils by 18 per cent. in quantity. Kerosine oil represented 94 per cent. of the trade, and continued to find favourable markets on account of its cheapness and superior illuminating power. The Russian oil is inferior to the American, but owing to its cheapness it was taken in much larger quantities. The latter country increased her exports to Bombay during the year by 79 per cent. against an improvement in the Russian oil of only 11 per cent.

Railway Plant and Rolling Stock.—The whole of the imports of railway plant and rolling stock came from the United Kingdom. The value was registered at 56¼ lákhs, or more than the year before by nearly 4 lákhs. The increase was due chiefly to larger receipts of rails, fish plates and sleepers, a quantity of which was required for the Godhra-Rutlam Railway, which was still under construction.

Seeds.—The total trade in seeds aggregated over 99¾ lákhs cwts., out of which exports represented nearly 99½ lákhs. Imports consisted of sahjira, poppy, and gingelly, received chiefly from Persia; the last description only came in small quantities from Turkey in Asia and Zanzibar. Exports of Indian seeds showed a small decline in quantity, and an improvement in value of 7 per cent. They were made up principally of linseed, rapeseed, gingelly, and groundnuts.

Of *Linseed*, France took the largest quantity, *viz.*, 42 per cent. of the total exports, less than in the previous year, but more than the average of the five years ending 1891-92 by 30 per cent. Less was sent to the United Kingdom than in 1891-92 by 37 per cent., but in this latter year exports to this country were exceptionally heavy.

Rapeseed.—Exports to Belgium came to nearly 8 lákhs cwts., larger than those to any other country and double of what they were in 1891-92. France took 7 lákhs, or less by 3 per cent. Germany took nearly 4 lákhs more than in 1891-92. The reason assigned for the increased demand on behalf of Germany and Belgium was the failure of the crops in Europe.

Gingelly.—France received nearly 60 per cent. of all the exports of this seed, but less than in the previous year by 18 per cent. Italy came next with a trade of 3½ lákhs cwts., or 1 lákh more than in 1891-92. Other countries took only small quantities, but in the majority of cases showed improvements.

Groundnuts.—The total shipments came to 11¾ lákhs cwts., or more than in 1891-92 by 1 lákh. France took over 9 lákhs, and this, with the 8 lákhs of the year before, makes more than 17 lákhs for the past two years, or an average of about 8½ lákhs, which is nearly twice as much as that of any previous year.

Silk—Raw.—China is the principal market from which supplies of raw silk are drawn, and imports therefrom depend much upon the crops in that country and the demand existing in European countries. Receipts during the year dropped in quantity by 18 per cent., but were less than the average of the five years ending 1891-92 by only 5 per cent. The imports in this latter year were exceptionally heavy. Re-exports of silk represented, in quantity, about 5 per cent. of the imports; the chief markets were found in Egypt, Arabia, and France.

Silk Piece-goods.—Under the heading silk piece-goods are comprised goods made solely of silk, and goods made partly of silk and partly of some other substance. The total trade improved in quantity by 11 per cent. The pure silk goods are imported largely from Hongkong, and of late years the quantity has increased considerably; it amounted to 57 lákhs of yards during the year under report, which is an improvement on the preceding year by 17 per cent. France is making rapid progress in this trade, and forwarded 6½ lákhs yards, or more by 10 per cent, than in 1891-92, in which the receipts were greater than the average of the five preceding years by no less than 133 per cent. The Treaty Ports sent 4¾ lákhs yards, or an increase of 48 per cent., and considerably more than the average of the previous five years. Mixed goods are received chiefly from France, and the quantity from that country came to 19¼ lákhs yards, or less than in 1891-92 by 17 per cent. Austria sent 3½ lákhs yards or more by nearly 90 per cent., and considerably in excess of the average of the past five years. Receipts from Germany were 1¼ lákhs yards, or more by 130 per cent. than in 1891-92, and than the average of the quinquennial period ending with that year by 147 per cent.

Spices.—There was a decline in the imports of spices of 35 per cent. Cloves, represented about one-half of the trade, and nearly the whole quantity, *i.e.*, over 48 lákhs lbs., was imported from Zanzibar; there was, however, a falling off since the previous year of 14 per cent.; and compared with the average of the five years ending 1891-92 there was a deficiency by 29 per cent.; this was said to be due partly to shorter crops, and partly to increased demand for direct shipments to European countries. Betelnuts made up more than one-fourth of the imports, and were received principally from the Straits Settlements. There was a decline in quantity of 59 per cent. when compared with 1891-92 and with the average of the quinquennial period ending with that year of 29 per cent., but on comparison with the average of the preceding five years there was an improvement of 8 per cent. Pepper

also was received in smaller quantities by 59 per cent. Re-exports of spices consisted almost entirely of cloves amounting to over 9 lákhs of pounds, more than half of which was taken by China, and smaller quantities by the United Kingdom, Straits Settlements, Arabia, and Aden.

Exports of Indian spices came to 60 lákhs lbs. and were larger by 16 per cent. Pepper accounted for nearly 36 lákhs, and was forwarded chiefly to Persia, Aden, United Kingdom, Egypt, Turkey in Asia, and Arabia, each country taking more than in the preceding year, especially the United Kingdom, which increased her imports by 642 per cent. The augmentation in shipments was stated to be due to the good crops in the country, and to the cheap rate at which the spice was being offered. Dry ginger was exported to the extent of nearly 16 lákhs lbs. or less by 10 per cent.; it went principally to Aden, Arabia, Persia, and Turkey in Asia.

Sugar.—There was increased activity in the sugar trade, and both imports and re-exports improved in quantity by 8 per cent. in the one case and 44 per cent. in the other. Imports were equal to the average of former years, but re-exports were larger than the average of the quinquennial period ending 1891-92 by 36 per cent. Supplies were drawn principally from Mauritius, Hongkong and Germany. From the first-named country less was imported by 17 per cent. and from the other two more was received by 89 per cent. and 137 per cent. respectively. As has been previously stated in this review, the late cyclone in Mauritius caused an interruption in the trade, and fearing short supplies from that country, both Hongkong and Germany forwarded larger quantities to Bombay, but the receipts from Mauritius did not fall so low as was anticipated, and the market in consequence became somewhat overstocked, with the result that prices fell, and caused a greater demand to set in for re-exports to Persia, Turkey in Asia, and Arabia.

Tea.—Although there was a decline of 5 per cent. in the imports of tea compared with 1891-92, they were nevertheless larger than the averages of the quinquennial periods ending with that year, and 1886-87, by 22 per cent. and 80 per cent. respectively. It was imported in two descriptions, *i. e.*, black and green, the latter predominating. About 74 per cent. of the imports came from the Treaty Ports, the remainder being drawn principally from Hongkong, Ceylon, Java, and Straits Settlements. Nearly the whole quantity from the ports was green tea, and that received from other countries, with few exceptions, was black tea. A large quantity, *i. e.*, 33 lákhs lbs., or close upon three-fifths of the total imports, and consisting almost entirely of green, was re-exported to Persian ports, whence it is said to find its way into the interior. Small quantities of black tea were also forwarded to Turkey in Asia, Arabia and the Eastern Coast of Africa. A large fall occurred in the exports of Indian tea amounting to 58 per cent. The principal demand for this description also comes from Persia, and the decline was attributed to large stocks remaining on hand from the excessive shipments made to this country in 1891-92, which were larger than those of the year before by 257 per cent.

Wool.—Imports of wool were small in comparison with the exports. The quantity received during the year under report was 29½ lákhs lbs., the average receipts for the quinquennial periods ending 1891-92 and 1886-87 being 28 lákhs and 15½ lákhs respectively. Nearly the whole was imported from Persia. This wool was generally re-exported to the United Kingdom. In exports of Indian wool there was a small decline of 1 per cent. on the previous year, and 7 per cent. on the average of the last five years. It was nearly all taken up by the United Kingdom only, small quantities going to Japan and France.

Woollen Piece-goods.—The quantity of woollen piece-goods imported during the year came to 54¼ lákhs yards and showed a smaller trade than in 1891-92 by 15 per cent., but it was about equal to the average of former years. The decline was caused by lighter importations from the United Kingdom and Germany. Re-exports represented in quantity little more than 7 per cent. of the imports, and were 16 per cent. less than the shipments in the previous year. The principal markets were found in Ceylon and Persia.

The gross amount of customs duty collected on imports and exports amounted to Rs. 23,52,279 and Rs. 2,30,687 as against Rs. 22,51,579 and Rs. 1,79,100 in the previous year. This was distributed as follows:— Customs receipts.

Imports.

Articles.	1891-92.	1892-93.	Increase or decrease in 1892-93.
	Rs.	Rs.	Rs.
Arms, Ammunition, &c....	84,825	78,215	—6,610
Liquors—			
Ale, Beer and Porter ...	54,417	44,199	—10,218
Spirits ...	15,29,511	16,03,323	+73,812
Wines and Liqueurs ...	1,68,642	1,43,632	—25,010
Other sorts ...	28	31	+3
Oils—Mineral—Petroleum	3,94,244	4,65,569	+71,325
Opium ...	161	477	+316
Salt ...	18,429	15,669	—2,760
All other articles ...	1,322	1,164	—158
Total ...	22,51,579	23,52,279	+1,00,700

Exports.

Article.	1891-92.	1892-93.	Increase or decrease in 1892-93.
	Rs.	Rs.	Rs.
Grain and Pulse—Rice and Paddy	1,79,100	2,30,687	+51,587

Foreign Trade: Entries and clearances with cargoes.

The following statement exhibits the total number and tonnage of vessels (steam and sailing) which entered and cleared with cargoes from and to foreign external ports :—

	1891-92.		1892-93.		Increase or decrease in 1892-93.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Entered	1,020	11,33,894	978	11,40,713	—42	+6,819
Cleared	1,005	12,19,055	928	10,86,573	—77	—1,32,482
Total ...	2,025	23,52,949	1,906	22,27,286	—119	—1,25,663

The number of vessels entered was smaller by 42 during 1892-93, but the tonnage was larger by 6,819 tons. Of the vessels cleared, the number was smaller by 77 and the tonnage by 1,32,482 tons. In the total shipping, the number and tonnage both showed a decrease of 119 and 1,25,663 respectively.

The proportion of steam to sailing vessels entered and cleared with cargoes in the year 1892-93 was as follows :—

	Steam.		Sailing.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Entered	604	10,83,797	374	56,916	978	11,40,713
Cleared	578	10,45,132	350	41,441	928	10,86,573
Total ...	1,182	21,28,929	724	98,357	1,906	22,27,286

Nationality of vessels.

The nationality of vessels (steam and sailing) entered and cleared with cargoes was as follows :—

Nationality.	Number of vessels entered.	Number of vessels cleared.
British	521	484
Austrian	36	38
Dutch	.....	1
French	7	7
German	28	26
Greek	.....	1
Italian	26	26
Norwegian...	2	3
Portuguese...	9	13
Swedish	1	.....
American	1	.....
Arab	145	155
Persian	1	2
Turkish	18	14
Native Craft	183	158
Total ...	978	928

Entries and clearances in ballast.

Under entries and clearances in ballast the number of vessels entered was less by 76 with a diminution in tonnage of 1,38,206 tons, while the number of vessels cleared was the same as last year with a falling off under tonnage of 2,137 tons. In the total, the number of vessels entered and cleared was less by 76 and the tonnage by 1,40,343 tons. Of the total number of vessels entered, 57 were British, 1 Dutch, 1 Norwegian, 1 Greek, 8 Arab, 1 Turkish, and 2 Native craft; of those cleared, 20 were British, 1 American, 3 Arab and 2 Native craft. There were this year 382 arrivals and 346 departures of steamers *viâ* the Suez Canal against 602 arrivals and 442 departures in 1891-92.

Total Coasting Trade export and import.

The Coasting Trade is divided into two sub-heads—

(1) Trade between the Port of Bombay and other ports on the continent of India.

(2) Trade of the Subordinate Ports of the Presidency.

The total figures of the Coasting Trade of the Port of Bombay are noted below :—

	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
Imports—				
Merchandise	9,95,88,724	10,20,32,981	24,44,257	.....
Treasure	10,07,117	3,82,739	.....	6,24,378
Total ...	10,05,95,841	10,24,15,720	18,19,879	.....
Government Stores	5,75,763	4,89,301	.....	86,462
Do. Treasure	1,99,249	20,236	.....	1,79,013
Exports (including Re-exports)—				
Merchandise	8,09,96,527	8,40,78,232	30,81,705	.....
Treasure	48,27,882	50,01,038	1,73,156	.....
Total ...	8,58,24,409	8,90,79,270	32,54,861	.....
Government Stores...	16,74,402	15,77,121	.....	97,281
Do. Treasure	1,17,61,000	1,22,87,000	5,26,000	.....
Total Trade—				
Merchandise	18,05,85,251	18,61,11,213	55,25,962	.....
Treasure	58,34,999	53,83,777	.....	4,51,222
Total ...	18,64,20,250	19,14,94,990	50,74,740	.....
Government Stores and Treasure ...	1,42,10,414	1,43,73,658	1,63,244	.....

The total coasting trade, imports and exports, of the Port of Bombay, exclusive of Government transactions, was valued at Rs. 19,14,94,990 against Rs. 18,64,20,250 in 1891-92, showing an improvement of Rs. 50,74,740. Contrasted with the average of the preceding five years, there was an augmentation in the trade of 34 lákhs, or about 1·8 per cent. Under imports, merchandise represented a value of Rs. 10,20,32,981, showing an increase of Rs. 24,44,257 over the preceding year, while transactions in treasure amounted to Rs. 3,82,739 and showed a falling off of Rs. 6,24,378. Under exports, merchandise was valued at Rs. 8,40,78,232 and treasure at Rs. 50,01,038, showing an improvement of Rs. 30,81,705 and Rs. 1,73,156 respectively. The import coasting trade of the Port of Bombay represented for the most part shipments from coast ports of country produce for subsequent exportation to foreign countries, while the export coasting trade comprised principally foreign merchandise sent from Bombay to the interior *viâ* the coast ports.

Import coasting trade.

The import coasting trade is recorded under two divisions:—(1) Imports of Indian produce, and (2) imports of foreign merchandise. The former was valued at Rs. 10,00,45,975 against Rs. 9,77,77,801 and the latter at Rs. 19,87,006 against Rs. 18,10,923, both showing larger transactions by Rs. 22,68,174 and Rs. 1,76,083 respectively. Under imports of Indian produce, the principal articles of trade were coal, coffee, coir, cordage and rope, raw cotton, cotton twist and yarn, dyeing and tanning materials (chiefly indigo, myrabolams and turmeric), cocoanuts, cocoanut kernel, grain and pulse, skins, gunny bags, gunny cloth, spirits, cocoanut oil, seeds (castor, groundnut, rape, and til or gingelly), spices, sugar, tea, teakwood, and raw wool. Of the articles noted above, coal, coffee, cordage, raw cotton, dyeing and tanning materials, skins, gunny cloth, seeds, spices, sugar, and teakwood showed larger transactions in the year under review, while the remainder exhibited a falling off. The imports of foreign merchandise were comparatively small, the principal articles being cotton piece-goods (grey, white and coloured), refined sugar, dried fruit (chiefly dates), and raw wool; in the first three named there was a larger trade, and in the last a diminution. In the imports of treasure, gold was valued at Rs. 15,070 and silver at Rs. 3,67,669 against Rs. 6,570 and Rs. 10,00,547, respectively, of the previous year. The import coasting trade with each Presidency or Province, and with Indian Ports, not British, is exhibited in the subjoined statement:—

	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
British Ports in other Presidencies—				
Bengal Presidency	1,86,94,682	1,33,48,502	.....	53,46,180
Madras Presidency	1,25,23,316	1,11,55,653	.....	13,67,663
British Burma	30,52,972	52,20,903	21,67,931	.....
Sind	99,10,376	1,03,12,367	4,01,991	.....
Total ...	4,41,81,346	4,00,37,425	.....	41,43,921
British Ports within the Presidency	2,19,98,167	2,23,51,872	3,53,705	.....

	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
Indian Ports not British—				
Cutch	16,82,626	18,28,712	1,46,086	.....
Kathiáwár	1,90,61,963	2,81,68,392	91,06,429	.....
Foreign Konkan...	3,06,036	2,51,092	.....	.....
Gaikwár's Territory	5,48,421	5,26,547	.....	54,944
Cambay	1,99,473	2,10,104	10,631	21,874
State of Travancore	31,71,441	32,00,391	28,950	.....
State of Cochin	49,735	93,696	43,961	.....
Goa	92,07,342	56,16,564	.....	35,90,778
Daman	10,777	11,933	1,156	.....
Diu	62,620	78,180	15,560	.....
Pondicherry	1,04,025	30,635	.....	73,390
Mahé	11,869	10,177	.....	1,692
Total ...	3,44 16,328	4,00,26,423	56,10,095	.....
Total of all Ports ...	10,05,95,841	10,24,15,720	18,19,879	.....

Export coasting trade.

Like the import, the export coasting trade is also divided into two classes :—(1) Exports of Indian produce and (2) exports of foreign merchandise; the former were valued at Rs. 3,97,90,252 against Rs. 3,79,30,958 and the latter at Rs. 4,42,87,980 against Rs. 4,30,65,569 in 1891-92, showing an improvement of Rs. 18,59,294 and Rs. 12,22,411, respectively. Exports of treasure showed a value of Rs. 50,01,038 against Rs. 48,27,882 in 1891-92, the transactions in gold being valued at Rs. 1,29,760 against Rs. 1,32,961 and those in silver at Rs. 48,71,278 against Rs. 46,94,921 last year. The principal articles of Indian produce exported from Bombay were cotton, cotton twist and yarn, cotton piece-goods, cocoanuts and cocoanut kernel, grain and pulse, gunny bags and gunny cloth, metals, vegetable oils, flour, seeds, spices, sugar, and teakwood. With the exception of cotton twist and yarn, cotton piece-goods and oils, which showed a decline, the trade in all the other articles enumerated was well maintained, and in many cases there were satisfactory improvements. Of foreign merchandise exported, the principal articles were apparel, cotton twist and yarn, cotton piece-goods, aniline and alizarine dyes, hardware and cutlery, liquors, metals, paper and pasteboard, silk, and silk piece-goods, spices, sugar, woollen piece-goods, kerosine oil, dried fruit (chiefly dates), glass and glassware, and matches. As in the case of articles of Indian produce, there was no decline to report in any of the particular goods exported, with the exception of cotton twist and yarn, and piece-goods.

The export coasting trade with each Presidency or Province, and with Indian Ports not British, is noted in the following statement :—

	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
British Ports in other Presidencies—				
Bengal Presidency	1,15,60,026	1,16,11,384	51,358	.....
Madras do.	1,68,21,587	1,99,71,438	31,49,851	.....
British Burma	39,09,513	43,31,306	4,21,793	.....
Sind	2,49,58,938	1,89,45,560	.....	60,13,378
Total ...	5,72,50,064	5,48,59,688	.....	23,90,376
British Ports within the Presidency ...	93,84,126	98,22,949	4,38,823	.....
Indian Ports not British—				
Cutch	28,39,334	28,48,592	9,258	.....
Kathiáwár	1,05,69,695	1,48,73,392	43,03,697	.....
Foreign Konkan	2,16,050	2,20,702	4,652	.....
Gáikwár's Territory	5,46,851	6,72,470	1,25,619	.....
Cambay	1,84,687	1,80,717	.....	3,970
State of Travancore...	9,92,832	9,75,248	.....	17,584
State of Cochin	5,784	9,762	3,978	.....
Goa	36,83,010	44,36,844	7,53,834	.....
Daman	23,565	18,144	.....	5,421
Diu	69,742	68,809	.....	933
Pondicherry	58,669	90,853	32,184	.....
Mahé	.....	1,100	1,100	.....
Total ...	1,91,90,219	2,43,96,633	52,06,414	.....
Total of all Ports ...	8,58,24,409	8,90,79,270	32,54,861	.....

Coasting Shipping.

The following statement shows, in comparison with the previous year, the number of coasting and tonnage of vessels which entered and cleared with cargoes from and to coast ports :—

	1891-92.		1892-93.		Increase or decrease in 1892-93.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Entered—						
British	586	5,70,144	553	5,64,069	—33	—6,075
British Indian...	3	347	.....	.....	—3	—347
Foreign	388	23,186	337	32,215	—51	+9,029
Native Craft	44,680	7,07,544	45,700	7,36,503	+1,020	+28,959
Total ...	45,657	13,01,221	46,590	13,32,787	+933	+31,566
Cleared—						
British...	586	5,54,532	565	5,71,138	—21	+16,606
British Indian	3	358	.....	.....	—3	—358
Foreign	289	47,643	276	46,988	—13	—655
Native Craft	10,859	2,85,718	10,897	2,84,703	+38	—1,015
Total ...	11,737	8,88,251	11,738	9,02,829	+1	+14,578

Summary of trade and shipping of the Port of Bombay.

The entire trade and shipping of the Port of Bombay are summarised and compared with the results of last year in the subjoined statements :—

Trade.

Details.	1891-92.	1892-93.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Imports—				
Merchandise	35,67,51,760	35,42,76,403	.....	24,75,357
Treasure	11,11,66,620	14,51,20,136	3,39,53,516	.....
Government Stores	80,95,117	97,26,747	16,31,630	.....
Do. Treasure	1,90,249	20,236	.....	1,79,013
Total ...	47,62,12,746	50,91,43,522	3,29,30,776	.....
Exports (including Re-exports)—				
Merchandise	48,73,53,293	48,85,81,553	12,28,260	.....
Treasure	3,15,39,579	6,62,94,396	3,47,54,817	.....
Government Stores	25,59,632	18,59,774	.....	6,99,858
Do. Treasure	1,31,61,000	1,24,92,000	.....	6,69,000
Total ...	53,46,13,504	56,92,27,723	3,46,14,219	.....
Total—				
Merchandise	84,41,05,053	84,28,57,956	.....	12,47,097
Treasure	14,27,06,199	21,14,14,532	6,87,08,333	.....
Government Stores	1,06,54,749	1,15,86,521	9,31,772	.....
Do. Treasure	1,33,60,249	1,25,12,236	.....	8,48,013
Total ...	1,01,08,26,250	1,07,83,71,245	6,75,44,995	.....

Shipping.

Details.	1891-92.		1892-93.		Increase or decrease in 1892-93.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Entered—						
With cargoes	46,677	24,35,115	47,568	24,73,500	+891	+38,385
In ballast...	3,092	3,38,585	1,120	1,94,046	—1,972	—1,44,539
Total ...	49,769	27,73,700	48,688	26,67,546	—1,081	—1,06,154
Cleared—						
With cargoes	12,742	21,07,306	12,666	19,89,402	—76	—1,17,904
In ballast	28,162	5,51,477	28,775	6,48,325	+613	+96,848
Total ...	40,904	26,58,783	41,441	26,37,727	+537	—21,056
Grand Total—						
With cargoes	59,419	45,42,421	60,234	44,62,902	+815	—79,519
In ballast	31,254	8,90,062	29,895	8,42,371	—1,359	—47,691
Total ...	90,673	54,32,483	90,129	53,05,273	—544	1,27,210

SUBORDINATE PORTS OF THE PRESIDENCY PROPER.

Trade of the subordinate Ports of the Presidency Proper.

The aggregate value under all heads of the trade of the continental ports of the Bombay Presidency, exclusive of Government stores and treasure, amounted to Rs. 6,93,96,462 for the year 1892-93, showing a decline of Rs. 4,35,927, or about 6 per cent. on the trade of the previous year. Compared with the average of the preceding five years the value was smaller by Rs. 8,63,401.

The whole trade is compared with that of the preceding year as follows :—

Names of Divisions.	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
Foreign External Ports	4,45,685	4,56,009	10,324	.....
Foreign Indian Ports	82,52,375	83,04,209	51,834	.....
British Ports in other Presidencies	96,29,193	94,17,128	.....	2,12,065
Do. in the Bombay Presidency... ...	5,15,05,136	5,12,19,116	.....	2,86,020
Total ...	6,98,32,389	6,93,96,462	.....	4,35,927

Foreign Trade.

The following table shows separately the value of imports and exports in the trade with foreign countries during the years 1891-92 and 1892-93 :—

		1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
		Rs.	Rs.	Rs.	Rs.
Imports ...	Merchandise...	4,43,023	4,52,376	9,353	.....
	Treasure	.....	1,000	1,000	.....
	Total ...	4,43,023	4,53,376	10,353	.....
Exports ...	Merchandise...	137	333	196	.....
	Treasure	2,525	2,300	.....	225
	Total ...	2,662	2,633	196	225
Total ...	Merchandise	4,43,160	4,53,709	9,549	.....
	Treasure	2,525	3,300	775	.....
	Grand Total ...	4,45,685	4,56,009	10,324	.....

The foreign trade at the coast ports is not large, and as mentioned in previous reports represents chiefly cargoes brought direct by Arab and other vessels from the Persian Gulf, Mekran and Sonmiáni, &c., as well as transhipments made at Bombay of merchandise from these and other foreign ports. The imports of merchandise were valued at Rs. 4,53,376, nearly the same as in 1891-92, and the exports at Rs. 333 against Rs. 137 of the preceding year. The transactions in treasure amounted to Rs. 1,000 and Rs. 2,300 under imports and exports respectively.

Foreign Imports.

The following table shows the distribution of the foreign import trade according to countries :—

Countries.	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
United Kingdom	1,82,735	1,59,384	.....	23,351
France—Marseilles	.....	1,440	1,440	.....
Eastern Coast of Africa—				
Zanzibar	447	.....	.....	447
Other Ports	.....	75	75	.....
Arabia—Muskat...	23,305	23,773	468	.....
Mekran and Sonmiáni	30,384	30,050	.....	334
Turkey in Asia—Bassorah	2,06,152	2,38,654	32,502	.....
Total ...	4,43,023	4,53,376	10,353	.....

United Kingdom.—The falling off in the trade with the United Kingdom was chiefly due to smaller importations of coal at Bombay for subsequent transhipment.

France.—This trade represented a transhipment of a quantity of bricks and tiles direct from the importing vessels at Bombay to Trombay in the Thána District.

Eastern Coast of Africa : Zanzibar.—The imports of oil-cake noticed last year were no repeated.

Eastern Coast of Africa : Other Ports.—The imports comprised a small quantity of limestone received from Socotra and transhipped at Bombay for Surat.

Arabia : Muskat.—As mentioned in previous reports, the principal article received from Muskat was limestone pebbles, the imports of which were valued at Rs. 19,960 against Rs. 17,572 in 1891-92.

Mekran and Sonmiani.—The trade was nearly the same as last year, and comprised principally salted fish, and kappatas or mat-wrappers.

Turkey in Asia.—Dates were imported from Bassorah at Honore, Broach, and Dholera in larger quantitie.

The following statement shows (1) the countries to which goods were exported and (2) the various articles of export :— Foreign Exports.

Countries to which exported.

Countries.	1891-92.	1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.
Mekran and Sonmiani	2,662	2,633	29
Total ...	2,662	2,633	29

Articles.

Articles.	Quantities.		Increase or decrease in 1892-93.	Value.		Increase or decrease in 1892-93.
	1891-92.	1892-93.		1891-92.	1892-93.	
Indian Produce—						
Fruits and Vegetables ... ...Value.	...	...	.....	...	1	+1
Grain and Pulse ... ... Cwt.	35	31	—4	133	114	—19
Hemp—Raw ... ... ,,	...	1	+1	...	5	+5
Jute—Twist and Yarn ... ... Lbs.	...	168	+168	...	24	+24
Mowa or Mowra Flowers ... Cwt.	1	1	.....	2	5	+3
Provision ... ... ,,	...	1	+1	...	3	+3
All other articles of merchandise . Value.	...	...	.....	2	181	+179
Treasure—Silver ... ... Tolas.	2,444	2,230	—214	2,525	2,300	—225
Total ...	...	...	.....	2,662	2,633	—29

The following table shows the total number and tonnage of vessels which entered and cleared with cargoes from and to foreign ports during the years 1891-92 and 1892-93 :— Foreign Shipping.

Details.	1891-92.		1892-93.		Increase or decrease in 1892-93.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Entered	80	4,356	102	5,784	+22	+1,428
Cleared	23	2,430	47	5,786	+24	+3,356
Total ...	103	6,786	149	11,570	+46	+4,784

Of the 102 vessels that entered, 48 were foreign, 27 being Arab, 20 Portuguese, and 1 Persian, and the remaining 54 Native craft. Of the 47 vessels that cleared, 36 were Arab, 2 Portuguese, and 1 Persian, the remaining 8 being Native craft.

The value of the total coasting trade of the continental ports including merchandise and treasure, exclusive of Government transactions, amounted to Rs. 6,89,40,453, against Rs. 6,93,86,704 in 1891-92, showing a falling off of Rs. 4,46,251. Under merchandise the imports were valued at Rs. 2,30,23,620 and showed a smaller trade by Rs. 5,78,592, while the exports amounted in value to Rs. 4,51,87,971, exhibiting an improvement of Rs. 2,35,724 as compared with the previous year. The transactions in treasure amounted to Rs. 5,37,350, and Rs. 1,91,512, under imports and exports respectively, and showed a decline, in each case, of about half a lákh over the previous year. Imports and exports of Government stores and treasure were valued at Rs. 7,79,875, against Rs. 10,06,271 in 1891-92. Coasting Trade.

Imports.

The following table shows the value of private merchandise and treasure imported by coast ports from all ports in India, whether British or Foreign :—

	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
British Ports in other Presidencies—				
Madras Presidency	22,87,317	17,90,283	.....	4,97,034
Sind	1,61,005	92,389	.....	68,616
Total ...	24,48,322	18,82,672	.....	5,65,650
British Ports in the Bombay Presidency ...	1,91,89,649	1,91,47,329	.....	42,320
Indian Ports, not British—				
Goa	9,01,815	8,11,417	.....	90,398
Daman	19,769	5,730	.....	14,039
Diu	97,775	66,804	.....	30,971
Mahé	8,020	5,368	.....	2,652
Foreign Konkan	1,20,685	1,12,449	.....	8,236
Cutch	21,093	11,051	.....	10,042
Káthiáwár	10,82,026	11,74,727	92,701	.....
Gaikwár's Territory	2,07,567	2,61,664	54,097	.....
Cambay	78,531	81,759	3,228	.....
State of Travancore	18,170	.....	.....	18,170
Total ...	25,55,451	25,30,969	1,50,026	1,74,508
Net Decrease ...	.....	.....	.....	24,482
Total of all Ports ...	2,41,93,422	2,35,60,970	.....	6,32,452

Exports.

The following table shows the value of exports of private merchandise and treasure from one coast port to another, including Bombay and the rest of India :—

	1891-92.	1892-93.	Increase in 1892-93.	Decrease in 1892-93.
	Rs.	Rs.	Rs.	Rs.
British Ports in other Presidencies—				
Bengal Presidency	18,28,941	15,89,210	.....	2,39,731
Madras Presidency	51,62,389	57,27,325	5,64,936	.....
Sind	1,89,541	2,17,921	28,380	.....
Total ...	71,80,871	75,34,456	5,93,316	2,39,731
Net Increase ...	.....	.....	3,53,585	.....
British Ports in the Bombay Presidency ...	3,23,15,487	3,20,71,787	.....	2,43,700
Indian Ports not British—				
Goa	8,50,500	9,32,283	81,783	.....
Daman	29,437	6,387	.....	23,050
Diu	60,189	64,814	4,625	.....
Foreign Konkan	84,037	87,174	3,137	.....
State of Cochin	4,21,230	3,88,331	.....	32,899
State of Travancore	13,02,848	11,00,327	.....	2,02,521
Cutch	5,90,146	7,75,473	1,85,327	.....
Káthiáwár	21,72,905	21,35,047	.....	37,858
Gáikwár's Ports	88,118	1,52,782	64,664	.....
Cambay	97,514	1,30,622	33,108	.....
Total ...	56,96,924	57,73,240	3,72,644	2,96,328
Net Increase ...	.....	.....	76,316	.....
Total of all Ports ...	4,51,93,282	4,53,79,483	1,86,201	.....

Continental Customs.

The following table shows the actual gross collections of the Customs revenue at the continental ports of the Presidency of Bombay, during the years 1891-92 and 1892-93 :—

Items.	Realized in 1891-92.	Realized in 1892-93.	Increase or decrease in 1892-93.
Continental Ports.	Rs.	Rs.	Rs.
Import Customs	1,060	1,604	+544
Export do.	9,260	17,578	+8,318
Miscellaneous	8,006	7,833	—173
Total ...	18,326	27,015	+8,689

LAND TRADE OF THE PRESIDENCY PROPER.

The extent of the Rail-borne Trade of the Presidency proper as compared with that of the previous year is given below :— Rail-borne Trade.

	Average of 5 years ending 1891-92.	1891-92.	1892-93.
	Lákhs of Maunds.		
Imports	302	383	342
Exports	98	118	112
Local Trade	294	333	300
Grand Total ...	694	834	754

The volume of trade was 9·59 per cent. below that of the previous year but 8·64 per cent. above the average. The external trade, made up of the imports (45·35 per cent.) into the Bombay Presidency (exclusive of Sind), and of exports (14·85 per cent.) to external blocks, accounts for 60 per cent. of the total. The remainder (39·80 per cent.) was local trade or trade between the several internal blocks of the Presidency—export and import. The decrease in volume as compared with 1891-92 was due to the absence of the special causes which led to an unusual activity in the wheat and food-grain trade in that year. Imports, exports and local trade fell respectively by 10·8, 5·08 and 9·1 per cents., but were nevertheless 13·24, 14·29 and 2·04 per cent. above average. The value of the trade, however, rose by 3·01 per cent. above that of the previous year, which may be partly accounted for by the quantitative fall having taken place mainly in wheat, while cotton transactions increased, the value of the latter being, bulk for bulk, much the higher of the two. The higher prices ruling for important trade staples, such as oilseeds and other food-grains, also contributed to the rise in value. Values showed improvement all round except in exports.

The next table gives an analysis of articles of import and export showing variations :—

IMPORTS.			EXPORTS.		
Articles.	1891-92.	1892-93.	Articles.	1891-92.	1892-93.
	Thousands of maunds.	Thousands of maunds.		Thousands of maunds.	Thousands of maunds.
Coal and Coke	2,386	2,262	Coal and Coke	975	1,066
Cotton (raw)	2,718	2,971	Cotton, Manufactured—		
Dyes and Tans	496	507	European	800	742
Wheat	18,430	10,983	Indian	295	375
Food-grains other than Wheat ...	3,609	5,672	Jute (Gunny Bags and Cloth) ...	236	193
Metals	47	35	Liquors	86	87
Oil-seeds	7,956	8,673	Metals	1,210	1,144
Opium	63	56	Oils (Kerosine)	359	379
Provisions (Ghee)	100	126	Provisions (Dried Fruits and Nuts)...	629	510
Spices	154	167	Salt	3,350	3,370
Stone and Lime	258	296	Spices	262	295
Sugar	765	836	Sugar	537	279
Wool (raw)	90	104	Tobacco	204	188
Others	1,277	1,477	Others	2,840	2,592
Total ...	38,349	34,165	Total ...	11,783	11,220

There was a decrease of 5·2 per cent. in the imports of coal and coke chiefly due to shorter receipts into Poona and Sholápur block from the Nizam's territory. Imports of cotton (raw) increased by 9·3 per cent. and values by 22·9 per cent., showing that cotton commanded a better price than in 1891-92. The American cotton crop was short and the consequent demand for Indian cotton sent up prices and attracted imports from the North-West Provinces and Oudh, Rájputána and Central India, the Punjáb and the Central Provinces. This increase was to a certain extent counterbalanced by smaller receipts from Berár where late rain did considerable injury to the cotton crop. Of the total imports under cotton, Bombay Port received 96·09 per cent. The imports under wheat exhibited a marked decline (40·4 per cent.), but were nearly up to the average. Over 98 per cent. of the decrease took place in receipts into the Port of Bombay. The stimulus which the export received in the previous year owing to the partial failure of the wheat and rye crops in Europe was absent in the year under review and the contraction of supplies to the port of shipment was added to by an unfavourable season. In the Central Provinces, the principal wheat field of the Bombay market, sowings were deficient owing to want of rain, and owing to other unfavourable climatic conditions the outturn was greatly reduced. In the North-West Provinces and Oudh, which come next as wheat producers for Bombay Port, the winter rains came late, and hot winds in March and April injured the grain. The Punjáb had one of the worst harvests the province has had for years, the failure of the winter rains and the abnormally high temper- Imports.

ature of March and April causing serious damage. The Berár crop suffered in much the same way as that of the Central Provinces; Rájputana and Central India also felt the effects of the prevalent drought.

There was an increase of 20¾ lákhs of maunds or 57·1 per cent. over last year and 65·2 per cent. above average, except under rice in husk as shown in the margin. The increase was chiefly credited to the North West Provinces and Oudh, the Punjáb, the Central Provinces and Rájputána and Central India, in all of which the crops of these food-grains were good. Of the total increase nearly 12 lákhs of maunds were taken up by the Port of Bombay for increased coast-wise export, notably to Madras Ports, which took over 4 lákhs of maunds of gram and pulse and over 3 lákhs of maunds of rice. At the same time exports to Europe, which, as in the case of wheat, had risen abnormally in the previous year, declined notably in jowár and bájra; France, Belgium and Italy closing their imports under these heads altogether. Exports to African and Asiatic ports improved except to Abyssinia. The port of Bombay also consumed locally a part of the increased import, receiving short supplies from the internal blocks of the Presidency and from Berár where owing to excessive rain the season was was anything but favourable for early crops. The remainder was taken up by the other internal blocks, notably by Gujarát and Káthiáwár, where the rainfall was somewhat injuriously heavy for the early crops, this block receiving something over 7 lákhs of maunds in excess over last year. The net increase (23·2 per cent. above average and 9 per cent. above previous year) under oil-seeds would have been much higher, but for the fall of 11½ lákhs of maunds under linseed due to shorter receipts from the Central Provinces, the North-West Provinces and Oudh and Berár. In the North-West Provinces and Oudh and Berár the season was favourable to linseed, and in the Central Provinces the crop was, on the whole, good. The decline may be accounted for by assuming that a considerable portion of the crop of 1891-92 was exported in the same year where harvested sufficiently early, thus causing smaller imports in the year under review. The linseed exports from the Central Provinces were also diverted to Bengal to an extent of 110,000 maunds. Imports of rape and mustard exceeded those of the previous year by 14¾ lákhs of maunds, the North-West Provinces and Oudh and the Punjáb, owing to a favourable season, contributing respectively 7¼ and 5½ lákhs of maunds to the increase. Imports of til or gingelly rose by 4 lákhs of maunds, Rájputána and Central India contributing the bulk. Receipts under poppy-seed declined owing to shorter supplies from all the external blocks, except the North-West Provinces and Oudh and the Punjáb. Those under castor-seed improved owing to larger supplies from the North-West Provinces and Oudh, the Nizam's Territory and Mysore. Under other heads, metals and opium fell both below average and last year's figures. In the case of the former the decrease was confined to iron transactions and in the latter it was due to shorter receipts into Bombay Port from Rájputána and Central India. Other heads showed an improvement. Sugar rose by over 9 per cent., the "unrefined" alone taking up 88 per cent. of the increase, chiefly due to increased imports from Bengal into the Port of Bombay, Gujarát and Káthiáwár and Khándesh, Násik and Ahmednagar blocks. Stone and lime increased by 14·7 per cent. mainly through larger receipts into the Poona and Sholápur block from the Nizam's Territory. An increase of 8·4 per cent. under spices was made up of equal contributions from Madras, the Central Provinces and Rájputána and Central India. Ghee (under Provisions) showed an increase of 26 per cent. on account of higher receipts, chiefly from the North-West Provinces and Oudh and Rájputána and Central India, the usual sources of ghee supply, into Gujarát and Káthiáwár, South of Narbada and below the Gháts and into Bombay Port to satisfy the demand of a specially busy marriage season. Wool (raw) exhibited a rise of 16 per cent. over past year's transactions, due to a larger import into Bombay Port from the Punjáb.

Exports.

The exports of coal and coke rose by 9·3 per cent. above last year through higher despatches into Rájputána and Central India, probably from the previous year's stock of Gujarát and Káthiáwár block and from Bombay Port. There was on the other hand a falling off in the exports from the Port of Bombay to Berár which imported about 61,000 maunds of coal and coke from Bengal.

The net increase of 22,000 maunds under cotton, manufactured, was due to larger exports of Indian piece-goods as shown in the margin. There was a decrease under European twist and yarn and piece-goods but only by comparison with the unusually heavy exports of the previous year, the figures for the year under review comparing very favourably with those for the five years ending 1890-91. The decrease was most noticeable in exports to the Central Provinces, which, perhaps, took less owing to a larger stock on hand from the previous year. The Punjáb curtailed its demand by about 22,000 maunds without making up the deficiency from other sources. This was possibly due to the existence of a large balance from the previous year's receipt. Indian piece-goods showed a marked increase, all provinces except the Central, taking more than in the previous year. The North-West Provinces and Oudh showed a

(Figures in thousands of maunds.)

Articles.	Exports of		Increase or decrease.
	1891-92.	1892-93.	
Cotton Piece-goods (European)	673	635	−38
Do. do. (Indian) ...	164	245	+81
Twist and Yarn (European) ...	126	107	−19
Do. do. (Indian) ...	131	129	−2
Total ...	1,094	1,116	+22

strong preference for Indian made cloth, increasing their imports by about 70,000 maunds, the bulk being from Gujarát and Káthiáwár and presumably the product of Ahmedábád mills. Fluctuations under Indian twist and yarn were small and call for no remark. A small increase under copper and brass, wrought and unwrought, was more than counterbalanced by a large decrease under iron. Transactions in iron fell off by 68,000 maunds, chiefly due to smaller exports from Bombay Port to the Central Provinces, which obtained a considerable portion of its iron from Bengal. The chief article of export trade under oils was kerosine, in which there was an improvement of 5·5 per cent. The increase occurred chiefly through higher consignments from the West India Portuguese Railway and South of Narbada and below the Gháts blocks to the Central Provinces, Berár, Mysore and Madras. This increase more than covered decreased exports from the Port of Bombay to the Central Provinces where a large quantity was imported from Eastern Bengal, in part, no doubt, the product of Burmese oil-wells. The increase under salt is chiefly traceable to a large export from Bombay Port to Mysore, which took nearly 1 lákh of maunds more than last year. This counterbalanced reductions in other directions. Sugar declined both below the previous year's total and average, being only half of the former. The decrease occurred under both heads, "refined" and "unrefined" and in the case of "refined" occurred notably in transactions from Bombay Port to Rájputána and Central India, the decrease amounting to one lákh of maunds.

Local Trade.

The chief articles of local trade were coal and coke, cotton (raw), wheat and other food-grains, oil-seeds, salt and sugar. The volume, though less than that of the preceding year, was above the average, the decrease which amounted to 9·8 per cent. of the total, being almost entirely due to the cessation in the abnormal exports of grain noticed in the previous year.

Road-borne Traffic.

Under the rotation system sanctioned by Government, the road-borne traffic was registered during the year at six selected nákas as noted below:—

Nákas.	*District.*
1. Dohad	Panch Mahále.
2. Wákad	Khándesh.
3. Wári...	Ahmednagar.
4. Halatkatta	Kánara.
5. Sholápur	Sholápur.
6. Ilkal	Bijápur.

The trade registered only records a portion of the total Road-borne Traffic of the Presidency and a detailed reveiw is, therefore, unnecessary. The cost of registration of the traffic at Sholápur and Ilkal was, as usual, borne by the municipalities of those places; elsewhere the expenditure was met from the annual grant of Rs. 2,000. Road traffic was also registered in the Panch Mahále District and on the Dákor-Kapadvanj Road in the Kaira District by the Public Works Department on behalf of the Local Boards. The total Panch Mahále Road-traffic was larger than that of 1891-92 by 59,000 maunds; this increase, though small, forming part of a general increase throughout the district and being noticeable, as a portion of the trade was carried by the first section of the Godhra-Rutlám Railway which opened in January 1893. The traffic registered on the Dákor-Kapadvanj Road, as compared with that of the past year, remained steady.

(2). SIND.

Chief Port—Karáchi.

Total private trade.

The value of the sea-borne trade of the Port of Karáchi, *viz.*, imports and exports of merchandise and treasure, from which Government stores and treasure are excluded, amounted during the year under review to Rs. 11,28,48,968 against Rs. 15,61,01,689 in the preceding year, being a decline of Rs. 4,32,52,721, or 27·70 per cent., of which three and three-quarter crores occur in foreign and about three-quarters of a crore in coasting trade. The following table shows the value of the trade of the port of Karáchi for the five years ending 1892-93 with foreign countries and coast ports, separately, exclusive of Government stores and treasure:—

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Increase or decrease in 1892-93 compared with 1891-92.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Foreign Trade—						
Imports	3,73,94,520	3,50,39,710	3,78,71,673	4,08,41,299	3,55,46,125	−52,95,174
Exports	3,88,91,020	5,06,89,398	4,72,43,937	7,37,90,312	4,18,54,753	−3,19,35,559
Total ...	7,62,85,540	8,57,29,108	8,51,15,610	11,46,31,611	7,74,00,878	−3,72,30,733
Coasting Trade—						
Imports	2,14,65,102	2,25,62,883	2,61,98,893	2,88,15,797	2,20,72,812	−67,42,985
Exports	1,40,59,436	1,40,30,410	1,29,25,915	1,26,54,281	1,33,75,278	+7,20,997
Total ...	3,55,24,538	3,65,93,293	3,91,24,808	4,14,70,078	3,54,48,090	−60,21,988
Grand Total ...	11,18,10,078	12,23,22,401	12,42,40,418	15,61,01,689	11,28,48,968	−4,32,52,721

There was a falling off to the extent of Rs. 52,95,174, or 12·97 per cent. in imports from foreign countries in comparison with the year 1891-92, when they amounted to Rs. 4,08,41,299 against Rs. 3,55,46,125 in the year under report. Exports to foreign countries exhibited a decline to the extent of Rs. 3,19,35,559, or 43·27 per cent. contrasted with the year 1891-92. The trade fell from Rs. 7,37, 90,312 in 1891-92, to Rs. 4,18,54,753 in the year under review. Compared with the year 1891-92, a decline to the extent of Rs. 67,42,985, or 23·40 per cent., was noticeable in imports from coast ports. The figures were Rs. 2,20,72,812 for the year under report against Rs. 2,88,15,797 in the preceding year. Exports to coast ports amounted, during the year under review, to Rs. 1,33,75,278, against Rs. 1,26,54,281 in the previous year, showing an improvement of Rs. 7,20,997, or 5·69 per cent.

Chief features of the foreign trade. Imports:

There was a falling off to the extent of Rs. 51,50,421, or 14·03 per cent. in merchandise not liable to duty imported from foreign countries in comparison with the year 1891-92. The figures were Rs. 3,15,55,707 for the year under review against Rs. 3,67,06,128 in the previous year. Imports of dutiable merchandise exhibited a decline to the extent of Rs. 4,04,288, or 13·40 per cent. compared with the year 1891-92, when it amounted to Rs. 30,16,266, against Rs. 26,11,978 in the year under review. The decrease was chiefly in ale, beer and porter, spirits and wines and wines and liqueurs and mineral oil. In firearms and gunpowder, common, trade improved. The value of treasure imported from foreign countries amounted, during the year under report, to Rs. 13,78,440, against Rs. 11,18,905 in the previous year, being an improvement of Rs. 2,59,535, or 23·19 per cent.

Exports.

Compared with the year 1891-92 a falling off to the extent of Rs. 3,19,97,093 or 48·11 per cent. was noticeable in exports of Indian produce and manufactures not liable to duty, in comparison with the year 1891-92. The trade fell from Rs. 6,65,01,843 in 1891-92 to Rs. 3,45,04,750 in the year under review. The decline was principally in cotton coloured, dyed or printed piece-goods, wheat, seeds and tea. In exports of dutiable merchandise, rice, to foreign countries, there was an improvement amounting to Rs. 2,95,860, or 81·04 per cent. in comparison with the year 1891-92. The trade rose from Rs. 3,65,064 in 1891-92 to Rs. 6,60,924 in the year under report. The value of foreign merchandise exported to foreign countries amounted, during the year under report, to Rs. 61,29,557 against Rs. 65,20,555 in the preceding year, showing a decrease of Rs. 3,90,998, or 5·99 per cent. An advancement of Rs. 1,56,672 or 38·89 per cent occurred in exports of treasure to foreign countries compared with the year 1891-92 when it amounted to Rs. 4,02,850 against Rs. 5,59,522 in the year under report.

Government transactions.

The following statement shows the entire transactions on Government account, both with foreign countries and coast ports, for the five years ending 1892-93:—

	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.	Increase or decrease in 1892-93 compared with 1891-92.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
From Foreign Countries.						
Imports.						
Stores	74,50,732	79,45,433	96,86,446	60,75,329	57,54,777	−3,20,552
Treasure	.....	2,000	1,50,000	.....	.....	.....
Total ...	74,50,732	79,47,433	98,36,446	60,75,329	57,54,777	−3,20,552
To Foreign Countries.						
Exports.						
Stores ... Foreign... ..	34,853	62,313	54,118	1,46,237	1,20,433	−25,804
Stores ... Indian	1,170	7,328	4,643	7,019	4,181	−2,838
Treasure	35,500	44,020	26,220	35,000	94,295	+59,295
Total ...	71,523	1,13,661	84,981	1,88,256	2,18,909	+30,653
From Coast Ports.						
Imports.						
Stores ... Foreign... ...	7,47,649	4,60,797	6,42,825	10,85,923	6,10,943	−4,74,980
Stores ... Indian	2,69,087	2,95,911	2,77,716	2,72,155	3,11,541	+39,386
Treasure	63,000	61,35,000	76,05,000	1,12,80,000	57,17,000	−55,63,000
Total ...	10,79,736	68,91,708	85,25,541	1,26,38,078	66,39,484	−59,98,594
To Coast Ports.						
Exports.						
Stores ... Foreign ..	1,13,570	1,09,119	4,11,492	2,23,555	1,62,349	−61,206
Stores ... Indian	5,665	18,377	27,170	28,368	33,487	+5,119
Treasure	2,892	.....	8,000	.....	3,563	+3,563
Total ...	1,20,127	1,27,496	4,46,662	2,51,923	1,99,399	−52,524

In 1891-92 a decrease of Rs. 86,11,117, or 37·28 per cent., was recorded in imports of stores from foreign countries, in comparison with the previous year. A further decline to the extent of Rs. 3,20,552, or 5·27 per cent., was noticeable under this head in comparison with the year 1891-92. The figures were Rs. 57,54,777 for the year under report, against Rs. 60,75,329 in the preceding year. The falling off was chiefly in imports of materials by the North-Western Railway. Exports of both foreign and Indian stores to foreign countries declined to the extent of Rs. 28,642 in comparison with the year 1891-92. The figures were Rs. 1,24,614 for the year under report, against Rs. 1,53,256 in the previous year. The decline was chiefly in ale, beer and porter to Aden. The value of treasure exported to foreign countries, during the year under review, amounted to Rs. 94,295, against Rs. 35,000 in the preceding year, being an improvement of Rs. 59,295, which was due to specie exported by the Telegraph Department to the Mekran Coast for payment to their establishment, &c. Imports of foreign stores from coast ports fell from Rs. 10,85,923 in 1891-92 to Rs. 6,10,943 in the year under report, the decrease being Rs. 4,74,980 principally in arms and ammunition, drugs other sorts, metals, military uniforms, and telegraph materials, whereas in exports of Indian Stores an improvement amounting to Rs. 39,386 was noticeable in comparison with the year 1891-92. Compared with the year 1891-92 there was falling off in imports of treasure from coast ports (wholly from Bombay) to the extent of Rs. 55,63,000. The figures were Rs. 57,17,000 for the year under report against Rs. 1,12,80,000 in the previous year. In exports of foreign stores to coast ports there was a decrease to the extent of Rs. 61,206 compared with the year 1891-92 when they amounted to Rs. 2,23,555, against Rs. 1,62,349 in the year under report, but exports of Indian stores to coast ports showed an advancement of Rs. 5,119 contrasted with the year 1891-92. Treasure consisting of uncurrent and defaced coin exported to Bombay amounted, during the year under report, to Rs. 3,563. None was exported in 1891-92.

Private trade with Foreign Countries: United Kingdom.

There was a falling off to the extent of Rs. 36,26,015, or 13·08 per cent., in imports of merchandise from the United Kingdom, both free and dutiable, in comparison with the year 1891-92. The trade fell from Rs. 2,78,74,878 in 1891-92 to Rs. 2,42,48,863 in the year under review. The decline was principally in military uniforms, art works, clay, alum, clocks and watches, coal, cotton twist and yarn, cotton grey piece-goods, aniline and alizarine dyes, earthenware and porcelain, flax manufactures, hops, ivory unmanufactured, jewellery, plate, spirits, wines and liqueurs, mineral oils other sorts, machinery and millwork, copper, iron, lead, steel, zinc or spelter, linseed oil, writing paper, printing and lithographing materials, sugar, wood, manufactures, woollen piece-goods, woollen shawls and wool, manufactures other sorts. There was, however, an improvement in horses, animals other kinds, apparel, gunpowder, common, books printed, &c., cement, candles, sulphur (brimstone), coke, cotton white and coloured, printed or dyed piece-goods, cotton hosiery, cotton thread, drugs other sorts, glass, bottles common, glass otherware, musical instruments, photographic instruments, ivory manufactured, perfumed spirits, matches, brass wrought, oils mineral other kinds, other kinds of paper, pitch, tar and dammer, provisions other sorts, railway plant and rolling stock, silk mixed piece-goods, soap, stationery, toys, umbrellas, wood other timber, and raw wool. The value of treasure imported from the United Kingdom amounted, during the year under report, to Rs. 13,12,400, against Rs. 10,81,500 in the previous year, showing an improvement of Rs. 2,30,900, or 21·35 per cent., chiefly in silver bullion. Exports of Indian produce and manufactures exhibited a decline to the extent of Rs. 1,03,11,394, or 46·32 per cent, in comparison with the year 1891-92 when they amounted to Rs. 2,22,60,979 against Rs. 1,19,49,585 in the year under review. The falling off was principally in cotton raw, wheat, pulse, bajri and jowari, barley, grains other sorts, and tea. There was an improvement in apparel, cabinetware and furniture, indigo, lac dye, hides and skins raw, animal bones, copper, natural curiosities, oils vegetable, not essential other kinds, fishmaws, sharkfins, &c., rags, saltpetre, rapeseed, wood, other timber and raw wool. In exports of foreign merchandise a decrease to the extent of Rs. 3,47,056, or 6·15 per cent., was noticeable contrasted with the year 1891-92. The trade fell from Rs. 56,34,891 in 1891-92 to Rs. 52,87,835 in the year under review. The decline was chiefly in musical instruments and wool raw. In apparel, candles, clocks and watches, flax manufactures, saddlery, ale, beer and porter, dried fruits, &c., and provisions other sorts, trade improved.

France.

An improvement amounting to Rs. 13,752 was noticeable in imports of both free and dutiable merchandise from France in comparison with the year 1891-92. The trade rose from Rs. 83,502 in 1891-92 to Rs. 97,254 in the year under review. The rise was principally in apparel, silk piece-goods, and woollen piece-goods. In brandy and claret trade declined. Exports of Indian produce and manufactures exhibited a falling off to the extent of Rs. 47,12,760, or 56·18 per cent., contrasted with the year 1891-92. The trade fell from Rs. 83,87,473 in 1891-92 to Rs. 36,74,713 in the year under report. The decline was chiefly in cotton raw, wheat, skins raw, rapeseed and wool raw. In hides raw, and til or gingelly seed, trade improved.

Belgium.

In imports of both free and dutiable merchandise from Belgium there was a decrease to the extent of Rs. 3,53,830, or 22·32 per cent., in comparison with the year 1891-92, when they amounted to Rs. 15,84,844 against Rs. 12,31,014 in the year under report. The principal articles in which there was a decrease were art works, books printed, &c., bricks and tiles, cotton twist and yarn, cotton thread, aniline and alizarine dyes, earthenware and porcelain, champagne, iron, steel, oils essential, and woollen piece-goods. In candles, drugs other sorts, dyes other sorts, fireworks, ivory unmanufactured, brandy, matches, lametta, lead, paints and

colours, and sugar, trade advanced. There was a falling off to the extent of Rs. 58,24,359, or 42·20 per cent. in exports of Indian produce and manufactures in comparison with the year 1891-92. The trade fell from Rs. 1,37,99,724 in 1891-92 to Rs. 7,975,365 in the year under review. The decline was principally in wheat, bájri and jowári, grains other sorts, and rapeseed. There was, however, an improvement in cotton raw, gum arabic, hides and skins raw, oils vegetable not essential other kinds, til or gingelly seed and wool raw.

Austria.

The value of both free and dutiable merchandise imported from Austria amounted, during the year under report, to Rs. 2,14,205 against Rs. 1,15,274 in the preceding year, being an increase of Rs. 98,931, or 85·82 per cent., chiefly in apparel, clocks and watches, cotton handkerchiefs, glass beads and false pearls, hops, paints and colors, soap and toys. In art works, musical instruments and woollen piece-goods trade declined. Exports of Indian produce and manufactures exhibited a decline to the extent of Rs. 3,887 compared with the year 1891-92 when they amounted to Rs. 27,437 against Rs. 23,550 in the year under report. The falling off was chiefly in wool raw. In hides raw, trade advanced.

Italy.

There was an improvement, amounting to Rs. 4,378 in imports of both free and dutiable merchandise contrasted with the year 1891-92. The trade rose from Rs. 18,910 in 1891-92 to Rs. 23,288 in the year under report. The rise was principally in apparel, sulphur (brimstone), and clocks and watches. Exports of Indian produce and manufactures exhibited a falling off to the extent of Rs. 75,333, or 43·60 per cent., in comparison with the year 1891-92. The figures are Rs. 97,442 for the year under report against Rs. 1,72,775 in the previous year. The decline was principally in cotton raw and wool raw. In hides raw, trade improved.

Germany.

Imports of both free and dutiable merchandise fell from Rs. 19,90,619 in 1891-92 to Rs. 16,88,691 in the year under review, the decrease being Rs. 3,01,928, or 15·16 per cent., principally in cabinetware and furniture, musical instruments, ivory manufactured, ale, beer and porter, brandy, gin, steel, sugar, woollen piece-goods, and woollen shawls. There was, however, an improvement in apparel, cotton manufactures other sorts, drugs and medicines other sorts, fireworks, glass beads and false pearls, scientific instruments, whisky and matches. The value of Indian produce and manufactures exported to Germany amounted, during the year under report, to Rs. 26,64,532 against Rs. 18,14,826 in the previous year, being a rise of Rs. 8,49,706, or 46·82 per cent., chiefly in cotton raw, hides raw, animal bones, oils vegetable not essential other sorts, and til or gingelly seed. In rapeseed trade declined.

Egypt.

Imports of merchandise rose from Rs. 3,582 in 1891-92 to Rs. 8,000 in the year under review, the increase being Rs. 4,418, chiefly in tobacco manufactures other sorts, and hardware and cutlery. In exports of Indian produce and manufactures a decline to the extent of Rs. 1,21,47,534 or 68·90 per cent. was noticeable in comparison with the year 1891-92, when they amounted to Rs. 1,76,29,297 against Rs. 54,81,763 in the year under report. The falling off was principally in wheat, barley, rapeseed and til or gingelly seed. As stated in previous year's report the export trade was not in reality with Egypt. The vessels carrying the goods were in all cases consigned to Port Said "for orders." The goods on arrival of the steamers at Port Said were either transhipped or carried in the same bottom to some continental ports.

Mauritius.

There was a falling off to the extent of Rs. 13,36,829 or 36·32 per cent. in imports of merchandise from Mauritius in comparison with the year 1891-92. The trade fell from Rs. 36,80,472 in 1891-92 to Rs. 23,43,643 in the year under report. The decrease was chiefly in sugar refined. Exports of Indian produce and manufactures amounted during the year under review to Rs. 31,762. There were no exports in the previous year.

Persia.

Compared with the year 1891-92 imports of merchandise exhibited a decline to the extent of Rs. 4,365. The figures were Rs. 8,42,633 for the year under report against Rs. 8,46,998 in the preceding year. The falling off was chiefly in wheat grains other sorts, mats other sorts, and ghi. There was, however, an improvement in apparel, cotton raw, drugs other sorts, dyes other sorts, dates, dried fruits, &c., shells and cowries, silk piece-goods and wool raw. An improvement amounting to Rs. 10,750 is noticeable in imports of treasure (chiefly Persian coins) in comparison with the year 1891-92, when it amounted to Rs. 11,350 against Rs. 22,100 in the year under review. The value of Indian produce and manufactures exported to Persia amounted during the year under report to Rs. 8,70,620 against Rs. 6,67,028 in the previous year, the rise being Rs. 2,03,592 or 30·52 per cent., chiefly in wheat, bájri and jowári, rice, barley, hides raw, til or gingelly seed, oil, oils vegetable not essential and other kinds, and flour. In cotton grey and coloured, dyed or printed piece-goods, indigo and tea trade declined. Exports of foreign merchandise fell from Rs. 3,21,191 in 1891-92 to Rs. 3,02,107 in the year under review, the decrease being Rs. 19,084, principally in cotton coloured, dyed or printed piece-goods, brandy and kerosine oil. There was an increase in candles, cotton grey and white piece-goods, whisky, matches, provisions other sorts and sugar. In exports of treasure there was an improvement amounting to Rs. 1,13,447 or 34·56 per cent., compared with the year 1891-92, when it amounted to Rs. 3,28,225 against Rs. 4,41,672 in the year under report.

Arabia.

There was a falling off to the extent of Rs. 65,931 or 26·91 per cent. in imports of merchandise in comparison with the year 1891-92. The figures were Rs. 1,79,053 for the year under review against Rs. 2,44,984 in the previous year. The decline was principally in wheat, skins raw, and dates. In chalk and lime trade advanced. The value of treasure

imported from Arabia during the year under review amounted to Rs. 13,880 against Rs. 4,300 in the preceding year, showing an increase of Rs. 9,580. An improvement amounting to Rs. 52,999 or 56·59 per cent. was noticeable in exports of Indian produce and manufactures contrasted with the year 1891-92. The trade rose from Rs. 93,641 in 1891-92 to Rs. 1,46,640 in the year under review. The advancement was principally in vegetables fresh, bájri and jowári, rice and dried-fish not salted. Compared with the year 1891-92 exports of foreign merchandise exhibited an increase of Rs. 39,366 or 67·92 per cent., contrasted with the year 1891-92 when they amounted to Rs. 57,955 against Rs. 97,321 in the year under review. The rise was chiefly in cotton grey, white and coloured, dyed or printed piece-goods, matches, kerosine oil, dried fruits, &c., and sugar. In exports of treasure a decline to the extent of Rs. 12,950 was noticeable in comparison with the year 1891-92. The trade fell from Rs. 16,050 in 1891-92 to Rs. 3,100 in the year under review.

Turkey in Asia.

Compared with the year 1891-92 there was a decrease to the extent of Rs. 10,742 in imports of merchandise. The figures were Rs. 10,38,921 for the year 1892-93 against Rs. 10,49,663 in the previous year. The falling off was chiefly in wheat, ghi and dates. In pulse, grains other sorts, and til or gingelly seed trade improved. Imports of treasure amounted in 1892-93 to Rs. 11,125. In 1891-92 there were no imports of treasure from Turkey in Asia. The value of Indian produce and manufactures exported to Turkey in Asia amounted during the year under review to Rs. 64,071 against Rs. 56,449 in the preceding year, being a rise of Rs. 7,622, chiefly in iron nails. Exports of foreign merchandise fell from Rs. 1,24,535 in 1891-92 to Rs. 60,732 in the year under report, the decline being Rs. 63,803 or 51·23 per cent. chiefly in kerosine oil and sugar. In matches trade advanced. The aggregate value of exports of treasure amounted during the year under report to Rs. 1,06,550 against Rs. 54,600 in the preceding year, an improvement of Rs. 51,950 or 95·14 per cent.

Mekrán and Sonmiani.

There was an improvement amounting to 87,809 or 12·53 per cent. in imports of merchandise in comparison with the year 1891-92. The trade rose from Rs. 7,00,503 in 1891-92 to Rs. 7,88,312 in the year under report. The rise was principally in cotton raw, hides and skins raw, ghi, salted fish and rapeseed. In pulse, grains other sorts, mats other sorts, fish-maws, sharkfins, &c., and raw wool trade declined. Imports of treasure declined to the extent of Rs. 2,820 compared with the year 1891-92, when they amounted to Rs. 21,755 against Rs. 18,935 in the year under report. The aggregate value of exports of Indian produce and manufactures amounted during the year under report to Rs. 3,71,172 against Rs. 3,19,416 in the preceding year, being an improvement of Rs. 51,756 or 16·20 per cent. principally in cotton grey piece-goods, wheat, bájri and jowári, and wood other timber. In cotton, coloured, dyed or printed piece-goods trade declined. Exports of foreign merchandise exhibited a decline to the extent of Rs. 32,591 or 12·40 per cent. contrasted with the year 1891-92. The trade fell from Rs. 2,62,732 in 1891-92 to Rs. 2,30,141 in the year under report. The falling off was chiefly in hardware and cutlery, brandy, provisions other sorts, and sugar. In cotton white piece-goods, trade improved.

Trade *vid* the Suez Canal.

In the import trade which passed through the Suez Canal there was a falling off to the extent of Rs. 42,85,481 or 12·93 per cent. in comparison with the year 1891-92 when it amounted to Rs. 3,31,38,682 against Rs. 2,88,53,201 in the year under review. An improvement amounting to Rs. 2,30,900 or 21·34 per cent. was noticeable in imports of treasure passing through this route contrasted with the year 1891-92. The figures were Rs. 13,12,400 for the year 1892-93 against Rs. 10,81,500 in the previous year. The export trade passing through the Suez Canal exhibited a decline to the extent of Rs. 3,22,71,389 or 45·58 per cent. in comparison with the year 1891-92. The trade fell from Rs. 7,07,88,767 in 1891-92 to Rs. 3,85,17,378 in the year under report. Government stores imported *vid* Suez Canal amounted during the year under review to Rs. 57,52,141 against Rs. 59,53,918 in the preceding year, the decrease being Rs. 2,01,777 or 3·38 per cent.

Foreign Trade: Merchant Shipping.

The number of steamers entered with cargo was the same as in the year 1891-92, but the tonnage was in excess by 581 tons, *viz.*, 151 steamers of 2,09,483 tons for the year under report against 151 steamers of 2,08,902 tons in the preceding year. The total number and tonnage of steamers entered in ballast amounted during the year under report to 32 and 52,995 tons against 94 and 1,66,240 tons in the preceding year or 62 steamers and 1,13,245 tons less, which was owing to absence of demands for tonnage for conveyance of wheat to the Continent of Europe, the wheat crop being below that of the previous year. Arrivals of sailing vessels with cargo were less by 32 and 2,461 tons contrasted with the year 1891-92, when they amounted to 348 vessels and 26,152 tons against 316 vessels and 23,691 tons in the year under report. The decline was due to smaller imports of dates, wheat and ghi from the Persian Gulf ports. Clearances of steamers with cargo amounted during the year under review to 135 of 1,96,649 tons against 246 of 3,81,789 tons in the previous year, the decrease being 111 steamers of 1,85,140 tons, which was mainly due to the unsatisfactory export trade in wheat and rapeseed with the Continent of Europe. Sailing vessels cleared with cargo were less by 22 vessels, but there was an increase in tonnage by 518 tons in comparison with the year 1891-92 when they amounted to 276 vessels and 16,512 tons against 254 vessels and 17,030 tons in the year under report.

Customs Revenue.

There was a falling off to the extent of Rs. 61,202 or 8·08 per cent. in the gross import duty collections in comparison with the year 1891-92. The revenue fell from Rs. 7,57,297 in 1891-92 to Rs. 6,96,095 in the year under report. The decline was chiefly in ale, beer

and porter, spirits, wines and liqueurs and mineral oil. In arms, ammunition, &c., revenue improved. There was an improvement amounting to Rs. 9,002, or 17·53 per cent., in the gross export duty collections contrasted with the year 1891-92. The revenue rose from Rs. 51,348 in 1891-92 to Rs. 60,350 in the year under report. The rise was due to the good rice crop in Sind combined with greater demands in the United Kingdom, Persia and the Mekrán Coast. The amount on account of refunds and drawbacks of import duty paid was less by Rs. 14,683 or 48·39 per cent. compared with the year 1891-92, when it amounted to Rs. 30,341 against Rs. 15,658 in the year under report. The amount of refunds of import duty on goods, principally wines and spirits transmitted under bond, to the territory of His Highness the Mahárája of Cashmere and Jammu under the operation of the Government of India's orders of 1881 was Rs. 5,536 against Rs. 13,139 in 1891-92. The total amount on account of drawbacks on kerosine oil re-exported to foreign ports during the year under report was Rs. 7,585 against Rs. 14,613 in the previous year, or Rs. 7,028 less.

Coasting Trade.

The total value of foreign merchandise and Indian produce and manufactures imported from and exported to coast ports amounted during the year under report to Rs. 3,53,54,650 against Rs. 3,78,14,151 in the preceding year, the decline being Rs. 24,59,501 or 6·50 per cent. There was a falling off to the extent of Rs. 4,70,555 or 53·09 per cent. in imports of both foreign merchandise and Indian produce and manufactures from Bengal in comparison with the year 1891-92. The trade fell from Rs. 8,86,304 in 1891-92 to Rs. 4,15,749 in the year under review. The decline was chiefly in jute gunny bags and cloth, rope and twine, betelnuts and sugar refined. There was, however, an improvement in apparel, cordage, hardware and cutlery, machinery and millwork, ghi and tea. The total value of foreign merchandise imported from Bombay amounted during the year under report to Rs. 1,29,55,794, against Rs. 1,59,42,689 in the previous year, the falling off being Rs. 29,86,895 or 18·73 per cent., principally in arms, ammunition, &c. other sorts, candles, twists and yarn, cotton grey, white and coloured, printed or dyed piece-goods, cotton handkerchiefs, dyeing and colouring materials, hardware and cutlery, ale, beer and porter, machinery and millwork, brass, iron, lead, steel, tin, zinc or spelter, paper and pasteboard, silk raw, spices other sorts, sugar refined, and woollen piece-goods. In gunpowder, dynamite and other explosives, drugs and medicines, brandy, spirits other sorts, wines and liqueurs, copper and silk piece-goods, trade advanced. Compared with the year 1891-92 imports of Indian produce and manufactures from Bombay exhibited a decline to the extent of Rs. 3,48,025 or 4·96 per cent. The figures were Rs. 66,67,882 for the year 1892-93, against Rs. 70,15,907 in the previous year. The decrease was chiefly in live animals, apparel, boots and shoes, cordage, cotton twists and yarn, cotton coloured, printed or dyed piece-goods, tobacco unmanufactured, cocoanuts, cocoanut kernel, rice, jute gunny bags, leather unmanufactured, iron, castor oil, oil other sorts, fruits and vegetable, dried, etc., rapeseed, til or gingelly seed, silk piece-goods, betelnuts, pepper, sugar refined and unrefined, and teak wood. There was, however, an improvement in coffee, coir, cotton grey piece-goods, pulse, jowári and bájri, grains other sorts, jute gunny cloth, rope and twine, spirits other sorts, ghi, provisions other sorts, seeds other sorts, cardamoms, and spices other sorts. There was a slight rise amounting to Rs. 625 in imports of both foreign merchandise and Indian produce and manufactures from Madras, contrasted with the year 1891-92, when they amounted to Rs. 2,78,934 against Rs. 2,79,559 in the year under report. The increase was principally in coir manufactured, cordage, cotton coloured, printed or dyed piece-goods, cocoanut kernel, hardware and cutlery, fruits and vegetable, dried, &c., pepper, and sugar unrefined. In cigars, cocoanuts and other timber trade declined. An improvement amounting to Rs. 4,58,131, or 240·81 per cent. was noticeable in imports of both foreign merchandise and Indian produce and manufactures from British Burma in comparison with the year 1891-92, when they amounted to Rs. 1,90,238 against Rs. 6,48,369 in the year under review. The rise was chiefly in teak and other timber. In imports of both foreign merchandise and Indian produce from British ports within the province a decline to the extent of Rs. 75,120 or 21·16 per cent. was noticeable in comparison with the year 1891-92. The trade fell from Rs. 3,54,979 in 1891-92 to Rs. 2,79,859 in the year under review. The articles in which trade declined were chiefly chemicals, cotton raw, tobacco unmanufactured, rice not in the husk, pulse, jowári and bájri, hides and skins raw, and rapeseed. In ghi, til or gingellyseed and wool raw, trade advanced. Contrasted with the year 1891-92 imports of both foreign merchandise and Indian produce and manufactures from Indian ports not British, exhibited an advancement amounting to Rs. 2,45,002 or 49·37 per cent. The trade rose from Rs. 4,96,189 in 1891-92 to Rs. 7,41,191 in the year under review. The rise was principally in cocoanuts, jowári and bájri, til or gingellyseed, pepper and other timber. In cotton, coloured, printed or dyed piece-goods, cocoanut kernel, wheat, jute gunny bags, ghi, betelnuts and spices other sorts, trade declined. In 1891-92 an improvement amounting to Rs. 7,606 or 76·90 per cent., was recorded in exports of both foreign merchandise and Indian produce and manufactures to Bengal. A further improvement amounting to Rs. 12,570 or 71·84 per cent. was noticeable under this head in comparison with the year 1891-92. The figures were Rs. 30,066 for the year 1892-93 against Rs. 17,496 in the previous year. The rise was chiefly in cotton grey and white piece-goods, hides raw, wines and liqueurs, machinery and millwork and sugar refined. In drugs and medicines trade declined. The total value of foreign merchandise exported to Bombay amounted during the year under report to Rs. 15,93,882 against Rs. 14,87,820 in the previous year, the increase being Rs. 1,06,062 or 7·12 per cent., chiefly in candles, cotton twists and yarn, cotton grey, white and coloured,

printed or dyed piece-goods, hardware and cutlery, sugar, refined, and woollen piece-goods. In apparel, ale, beer and porter, machinery and millwork, brass, copper and iron trade declined. There was an improvement amounting to Rs. 7,31,921, or 8·22 per cent. in exports of Indian produce and manufactures to Bombay in comparison with the year 1891-92. The trade rose from Rs. 88,98,273 in 1891-92 to Rs. 96,30,194 in the year under review. The advancement was principally in apparel, cotton raw, indigo, dyes other sorts, jowári and bájri, hides and skins raw, salted fish, provisions other sorts, linseed, til or gingellyseed and seeds other sorts. In chemicals, drugs and medicines, gram, rice, wheat, pulse, grains other sorts, gums other sorts, mustardseed, rapeseed and wool raw, trade declined. In exports of both foreign merchandise and Indian produce and manufactures to Madras a decline to the extent of Rs. 3,523 or 1·62 per cent. was noticeable compared with the year 1891-92, when they amounted to Rs. 2,17,187, against Rs. 2,13,664 in the year under report. The falling off was chiefly in skins raw, and seeds other sorts; there was, however, an improvement in chemicals, drugs and medicines, gram, pulse and mustardseed. Compared with the year 1891-92, exports of both foreign merchandise and Indian produce and manufactures to British Burma exhibited a rise amounting to Rs. 40,005 or 106·00 per cent. The figures were Rs. 77,745 for the year under report, against Rs. 37,740, in the preceding year. The increase was chiefly in apparel, dried fish not salted, salted fish and sugar refined. There was a falling off to the extent of Rs. 43,060, or 12·83 per cent., in exports of both foreign merchandise and Indian produce and manufactures to British ports within the province in comparison with the year 1891-92. The trade fell from Rs. 3,35,507 in 1891-92 to Rs. 2,92,447 in the year under report. The decline was principally in cotton grey, white and coloured, printed or dyed piece-goods, rice, pulse, jowári and bájri, grains other sorts, hides raw, rapeseed and wool raw. There was, however, an improvement in ghi and til or gingellyseed. Exports of both foreign merchandise and Indian produce and manufactures to Indian ports not British exhibited a decline to the extent of Rs. 1,26,639 or 7·65 per cent. contrasted with the year 1891-92, when they amounted to Rs. 16,54,888, against Rs. 15,28,249 in the year under report. The falling off was principally in gram, rice, wheat, pulse, jowári and bájri, til or gingellyseed and seeds other sorts. In apparel, dyes other sorts, jute gunny bags, ghi and sugar refined trade advanced.

Merchant shipping.

The number of steamers entered with cargo from coast ports during the year under report was 192 and 1,91,063 tons against 209 and 2,00,486 tons in the previous year or 17 steamers of 9,423 tons less. Entrances of steamers in ballast were less by 15 steamers of 27,584 tons in comparison with the year 1891-92 when there were 24 steamers of 42,176 tons against 9 steamers of 14,592 tons in the year under review. The decrease was on account of smaller demands for tonnage for conveyance of wheat and rapeseed to the Continent of Europe. The number of sailing vessels entered with cargo from coast ports during the year under report was 1,099 and 51,757 tons against 1,369 and 62,196 tons in the previous year or 270 vessels and 10,439 tons less, which was due to the unsatisfactory condition of the import coasting trade. Clearances of steamers with cargo during the year under report were 233 in number and 248,421 tons, against 225 in number and 222,221 tons in the preceding year, being 8 steamers and 26,200 tons in excess, which is due to more steamers having cleared with cargo to foreign ports *viâ* Bombay. In such cases these vessels are classed as coasting steamers under the orders of the Government of India. The number of sailing vessels cleared with cargo was less by 168 vessels of 8,669 tons in comparison with the year 1891-92, when they were 1,032 vessels of 54,340 tons, against 864 vessels of 46,671 tons.

Subordinate Ports of Sind.

Keti Bandar.

The value of foreign trade with Mekrán and Sonmiáni amounted during the year under report to Rs. 494, against Rs. 809 in the preceding year. There was a falling off to the extent of Rs. 13,100 or 6·59 per cent. in imports of foreign merchandise in comparison with the year 1891-92. The trade fell from Rs. 1,98,857 in 1891-92 to Rs. 1,85,757 in the year under review. The decline was principally in cotton, grey and coloured, printed or dyed piece-goods, and sugar refined. In apparel, brandy and iron trade advanced. Imports of Indian produce and manufactures exhibited a decline to the extent of Rs. 3,941 or 4·27 per cent. contrasted with the year 1891-92, when they amounted to Rs. 92,089 against Rs. 88,148 in the year under report. The articles in which the decrease occurred were cotton grey piece-goods, cocoanut kernel, jute gunny bags, salt, silk piece-goods, betelnuts and pepper. There was, however, an improvement in cotton, coloured, printed or dyed piece-goods, cotton, canvas, drugs other sorts, pulse, iron, and sugar refined. The value of treasure imported, during the year under report, amounted to Rs. 2,369, against Rs. 6,012 in the year 1891-92, the decline being Rs. 3,643. Contrasted with the year 1891-92, a decline to the extent of Rs. 3,16,740 or 41·47 per cent. was noticeable in exports of both foreign merchandise and Indian produce and manufactures. The trade fell from Rs. 7,63,761 in 1891-92 to Rs. 4,47,021 in the year under report. The falling off was principally in chemicals other sorts, cotton raw, tobacco unmanufactured, rice, pulse, jowári and bájri, grains other sorts, hides raw, and rapeseed. In dyes other sorts, ghi, til or gingellyseed, seeds other kinds and wool raw, trade improved. Customs revenue on account of export duty on rice fell from Rs. 13,163 in 1891-92 to Rs. 6,740 in the year under report being a decrease of Rs. 6,423, due to favourable crops at Cutch owing to abundance of rain.

Sirganda.

There was no trade with foreign countries at this port, but with coast ports only, viz. Karáchi and Cutch. In imports of both foreign merchandise and Indian produce and manufactures there was a falling off to the extent of Rs. 30,227 or 31·49 per cent., in comparison with the year 1891-92, when they amounted to Rs. 95,964 against Rs. 65,737 in the year under review. The decline occurred chiefly in cotton twists and yarn, cotton grey, white, coloured, printed or dyed piece-goods, cocoanut kernel, salt, betelnuts and pepper. In apparel, iron, silk piece-goods and sugar refined, trade advanced. Compared with the year 1891-92 imports of treasure exhibited a decline to the extent of Rs. 11,167, having fallen from Rs. 53,531 in 1891-92 to Rs. 42,364 in the year under review. The aggregate value of both foreign merchandise and Indian produce exported, during the year under report amounted to Rs. 2,64,390 against Rs. 2,85,940 in the previous year, the decline being Rs. 21,550 or 7·53 per cent. chiefly in rice in the husk, jowári and bájri, grains other sorts, hides raw, and rapeseed. In rice not in the husk, til or gingelly-seed and wool raw, trade improved. Compared with the year 1891-92 there was a falling off to the extent of Rs. 3,900 in customs revenue, *i. e.*, in export duty on rice. The figures were Rs. 15,505 for the year 1892-93 against Rs. 19,405 in the previous year. The decline was due to smaller shipments of rice to Cutch, where the rice crop was favourable.

SIND EXTERNAL LAND TRADE.

Sind External Land Trade.

The following table shows the entire value of the External Land Trade of the Province of Sind and British Baluchistán with countries external to British India and British Baluchistán, *viz.*, Afghánistán and Baluchistán, both by road and railway, during the year 1892-93, compared with the preceding years :—

	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.
Imports	36,39,440	57,76,340	35,40,611
Exports	1,56,78,258	63,30,056	39,43,707
Total ...	1,93,17,698	1,21,06,396	74,84,318

The total value of the external land trade amounted during the year under report to Rs. 74,84,318 against Rs. 1,21,06,396 in the previous year, being a decrease of Rs. 46,22,078 or 38·17 per cent.

The subjoined statement exhibits the extent of the External Import Land Trade with foreign countries for the year 1892-93, contrasted with the year 1891-92 :—

IMPORTS.	1890-91.	1891-92.	1892-93.
From Afghánistán.	Rs.	Rs.	Rs.
From Kandahar	1,29,274	46,92,536	23,94,284
„ Zhob and Loralai	.....	1,57,942	1,16,898
„ Khorásán	9,120	.....	.....
„ Kabul	12,580	.....	.....
„ Girishk	.....	9,990	.....
„ Herát	.....	40,182	5,610
„ Gurmsel	.....	.....	97,458
From Baluchistán.			
From Kelát Territory	3,30,880	4,37,843	5,71,233
„ Las Beyla Territory	4,87,868	4,37,847	4,05,128
Total ...	9,69,722	57,76,340	35,40,611
By Railway ...	26,69,718	.....	.....
Grand Total ...	36,39,440	57,76,340	35,40,611

There was a falling off in the value of the import trade both by road and railway, to the extent of Rs. 22,35,729 or 38·70 per cent., in comparison with the year 1891-92, when it amounted to Rs. 57,76,340 against Rs. 35,40,611 in the year under review, chiefly in sheep and goats, assafœtida, fruits and nuts, wheat, other spring crops, iron, provisions other sorts, spices other sorts, timber and raw wool. There was, however, an improvement in horses, ponies and mules, cattle, cotton raw, indigo, gums and resins, ghi, other saline substances, mustard and rape seeds, tobacco and woollen manufactures. Imports from Kelát Territory were more by Rs. 1,33,390 in the year under report.

The following table shows the extent of the external export land trade with foreign countries for the year 1892-93 compared with the preceding years:—

EXPORTS.	1890-91.	1891-92.	1892-93.
To Afghánistán.	Rs.	Rs.	Rs.
To Kandahár	56,914	52,61,910	29,76,569
„ Herát	.....	24,450	.....
„ Gurmsel	.....	.....	1,380
„ Zob and Loralai	.....	7,00,720	4,82,855
To Baluchistán.			
To Kelát Territory	3,39,703	1,06,546	2,04,809
„ Las Beyla Territory	2,85,914	2,36,430	2,78,094
Total ...	6,82,531	63,30,056	39,43,707
By Railway ...	1,49,95,727	.....	.....
Grand Total ...	1,56,78,258	63,30,056	39,43,707

In exports, both by road and railway, a decrease to the extent of Rs. 23,86,349, or 37·69 per cent., was noticeable contrasted with the year 1891-92. The figures were Rs. 39,43,707 for the year 1892-93 against Rs. 63,30,056 in the previous year. The decrease was principally in animals, Chinese and Japaneseware, coal and coke, cotton twist, both European and Indian, cotton piece-goods, European drugs and medicines, indigo, earthenware, and porcelain, jute gunny bags and cloth, wheat, gram and pulse, hides and skins, leather manufactured, wines, brass and copper, iron, petroleum, other kinds of oils, provisions other sorts, spices other sorts, sugar unrefined, Indian and foreign tea, timber and woollen piece-goods. In cotton piece-goods, Indian, other fibre, manufactured, rice unhusked, other rain crops, spirits, silk manufactured, Indian, sugar refined, and wool raw, trade improved. Exports to Baluchistán, both to Kelát and Las Beyla Territories, exceeded previous years' figures by Rs. 1,39,927.

Imports.

There was an improvement in imports of horses, ponies and mules to the extent of 103, value Rs. 35,623, in comparison with the year 1891-92. In imports of animals, other than horses, ponies and mules, a decline to the extent of 9,936, value Rs. 29,245, was noticeable contrasted with the year 1891-92. The figures were 12,507, value Rs. 53,649, in the year under report against 22,443, value Rs. 82,894, in the preceding year. The falling off was chiefly in sheep and goats from Afghánistán. There was an increase in imports of sheep and goats from Las Beyla Territory, which was attributed to the favourable prices obtaining in Karáchi, which induced the people to import a larger number of sheep and goats from Las Beyla Territory. Imports from parts of Sind into Karáchi were considerably less during the year under report owing to abundance of pasturage everywhere, the rainfall throughout Sind having been plentiful. Imports of fruits and nuts fell from maunds 119,566, value Rs. 13,27,059, in 1891-92, to maunds 83,025, value Rs. 9,86,271, in the year under review, being a decrease of maunds 36,541, value Rs. 3,40,788, which was due partly to short crops and partly to His Highness the Amir having prohibited the imports of these commodities into Chaman during a greater part of the year. The total quantity of grains imported during the year under report amounted to maunds 66,645, value Rs. 2,11,663, against maunds 117,287, value Rs. 3,18,639 in the year 1891-92, the falling off being maunds 50,642, value Rs. 1,06,976. Compared with the year 1891-92, there was an improvement to the extent of maunds 1,688, value Rs. 8,625, in imports of gums and resins, but they were much below the figures of the year 1890-91. The trade rose from maunds 650, value Rs. 2,986, in 1891-92, to maunds 2,338, value Rs. 11,611, in the year under review. A large improvement amounting to maunds 2,505, value Rs. 1,15,976, was noticeable in imports of ghi in comparison with the year 1891-92, when it amounted to maunds 5,434, value Rs. 1,47,964, against maunds 7,939, value Rs. 2,63,940, in the year under review. The increase was attributed to greater demand in the Karáchi market for exportation by sea which led to larger imports of ghi from Afghánistán. Imports of ghi from Las Beyla Territory diminished greatly owing to the prevalence of disease amongst cattle. Imports of mustard and rape seeds amounted, during the year under report, to maunds 31,369, value Rs. 1,45,762, against maunds 24,733, value Rs. 1,10,004, in the preceding year, showing an improvement of maunds 6,636, value Rs. 35,758, due partly to good crops and partly to greater demand for exportation by sea, which induced holders to dispose of the previous year's stock. There was a decline to the extent of maunds 5,603, value Rs. 78,074, in imports of spices other sorts, in comparison with the year 1891-92. The trade fell from maunds 7,747, value Rs. 1,05,907, in 1891-92, to maunds 2,144, value Rs. 27,833, in the year under report. The falling off was owing to overstocks of the preceding year when the imports were much above the average. The total quantity of wool raw imported, during the year under review, amounted to maunds 1,10,071, value Rs. 12,50,476, against maunds 221,323, value Rs. 27,08,935 in the previous year, the decrease being maunds 111,252, value Rs. 14,58,459, due partly to diminished demand in Europe and America and partly to considerable exports of this article from Afghánistán to Russia instead of to India.

Exports.

There was a falling off to the extent of maunds 720, value Rs. 18,758, in exports of cotton twist and yarn, Indian, in comparison with the year 1891-92, when they amounted to maunds 1,375, value Rs. 35,856, against maunds 655, value Rs. 17,098, in the year under report. The decline was owing to over-stocks of the previous year, when the exports were much above the average. Exports of cotton piece-goods, European, fell from maunds 29,850, value Rs. 22,77,072 in 1891-92, to maunds 8,209, value Rs. 6,81,664 in the year under report, the decrease being maunds 21,641, value Rs. 15,95,408. But exports of cotton piece-goods, Indian, rose from maunds 34,256, value Rs. 13,56,413 in 1891-92, to maunds 39,642, value Rs. 16,15,296 in 1892-93, being an improvement of maunds 5,386, value Rs. 2,58,883. The decrease in piece-goods, European, and the increase in piece-goods, Indian, were attributed to preference being given to the latter on account of its durability. Compared with the year 1891-92, exports of indigo exhibited a falling off to the extent of maunds 1,421, value Rs. 1,05,640. The figures were maunds 1,063, value Rs. 65,319, for 1892-93, against maunds 2,484, value Rs. 1,70,959, in the preceding year. The decline was due to greater demand in the Karáchi market for exportation by sea to Europe and Bombay. Exports of rice amounted during the year under report to maunds 34,904, value Rs. 1,27,224, against maunds 33,896, value Rs. 1,16,065, in the previous year, showing an improvement of maunds 1,008, value Rs. 11,159, which occurred chiefly in exports of rice unhusked, to Las Beyla Territory, where the rice crop was unfavourable. In exports of grains, other than rice, there was a decline to the extent of maunds 2,896, value Rs. 19,638, in comparison with the year 1891-92. The figures were maunds 37,473, value Rs. 1,05,806, for 1892-93, against maunds 40,369, value Rs. 1,25,444, in the previous year. This decline occurred chiefly in wheat and gram and pulse to Afghánistan. There was a vast improvement in jowári exports to Las Beyla territory. In 1891-92, a decrease of maunds 14,163, value Rs. 1,26,910, was recorded in exports of iron. A further decrease of maunds 15,668, value Rs. 1,35,086, was noticeable under this head in comparison with the year 1891-92, when they amounted to maunds 25,614, value Rs. 2,20,228, against maunds 9,946, value Rs. 85,142, in the year under report. As stated in previous year's report the trade under this head has been gradually declining since the year 1887-88. Exports of sugar, refined, exhibited an improvement of maunds 5,181, value Rs. 57,360, in comparison with the year 1891-92, chiefly in exports to Afghánistán. In sugar, unrefined, there was a falling off to the extent of maunds 9,964, value Rs. 48,994. The total exports of sugar amounted to maunds 22,044, value Rs. 2,21,064, in 1892-93, against maunds 26,827, value Rs. 2,12,698, in the preceding year. Compared with the year 1891-92, there was a falling off to the extent of maunds 979, value Rs. 87,773, in exports of tea, Indian and foreign. The trade fell from maunds 2,311, value Rs. 1,86,553 in 1891-92, to maunds 1,332, value Rs. 98,780, in the year under report. The decline was said to be due to the levy of duty in Afghánistán on tea.

(3) ADEN.

Total Trade.

The total value of the sea-borne and inland trade for the year 1892-93, exclusive of Government stores and Government treasure, and also cargo manifested for direct transhipment on importation without invoice, amounted to Rs. 8,17,55,104, showing an increase of Rs. 64,50,019 or 7·88 per cent. over that of the year previous. Of these 55¾ lákhs came under the head of foreign trade, and 10¾ lákhs under Indian trade. There was a decrease, however, of 2 lákhs in the inland trade. The cause of the increase was partly the continued demand for coffee in European markets which forced up the price, and consequently the value of the article imported. There was a largely increased demand for grain imports rising by 10½ lákhs and exports by 7 lákhs. The quantity of skins imported rose largely owing to the Aden trading firms having largely extended their agencies at the various ports along the gulf. There was a rise of 4 lákhs also in the trade done in ambergris and shells, owing to large finds of these articles along the coast. The green Arabian tobacco having largely risen in price, owing to its having been monopolised by a company, there was a large increase (2¾ lákhs) of the cheaper Indian tobacco to meet the wants of the lower classes of the community. Trade in sugar and spices also increased by 3 lákhs. At the same time, notwithstanding the receipt of 6 lákhs of dollars from Austria, there was a heavy decrease (15 lákhs) in the movements of treasure; and a still further falling off in the amount of hides imported, due to the fact that the cattle disease in 1890-91 and 1891-92 carried off almost all the cattle in the country. The decline of 2 lákhs in the inland trade was almost entirely due to diminished transactions in treasure.

The trade of Aden is divided into Foreign, Inland and Indian. The following is a comparative table of the trade under the three heads during the past two years:—

Divisions.	1891-92.	1892-93.	Increase or Decrease.
	Rs.	Rs.	Rs.
Foreign Trade	5,68,98,424	6,24,72,004	+55,73,580
Indian do.	1,31,17,688	1,41,96,168	+10,78,480
Inland do.	52,88,973	50,86,932	−2,02,041
Total ...	7,53,05,085	8,17,55,104	+64,50,019

Foreign Trade: Imports.

Merchandise imported showed an increase of Rs. 39,88,918 or 15·20 per cent., treasure a decrease of Rs. 11,17,735 or 33·00 per cent., or taking both together an increase of Rs. 28,71,183 or 9·69 per cent. The following table shows imports distributed according to countries as compared with the trade of the previous year :—

Countries.	1891-92.	1892-93.	1892-93. Increase.	1892-93. Decrease.
	Rs.	Rs.	Rs.	Rs.
United Kingdom...	40,33,209	42,58,300	2,25,091	.....
Austria	7,07,661	13,69,386	6,61,725	.....
France	2,24,596	3,20,159	95,563	.....
Italy...	97,140	1,23,210	26,070	.....
Other countries in Europe	94,115	1,17,950	23,835	.....
United States of America	18,47,897	22,33,549	3,85,652	.....
Egypt	10,48,515	4,55,895	.....	5,92,620
East Coast of Africa. Massowah	9,28,414	10,29,505	1,01,091	.....
East Coast of Africa. Suakin	1,96,197	3,21,836	1,25,639	.....
East Coast of Africa. Other Ports	42,79,977	48,36,678	5,56,701	.....
East Coast of Africa. Zanzibar—Island and Mainland ...	4,85,704	3,52,968	.....	1,32,736
Mauritius and Mahé	98,098	2,37,853	1,39,755	.....
Arabia	1,11,96,268	1,22,19,716	10,23,448	.....
Perim Island	35,267	28,034	.....	7,233
Turkey in Asia	8,13,367	8,71,628	58,261	.....
Persia	1,37,765	2,15,968	78,203	.....
Straits Settlements	2,45,601	3,27,522	81,921	.....
China (Hongkong)	1,74,693	2,56,774	82,081	.....
Other countries in Asia	99,429	51,817	.....	47,612
Australia	14,088	436	.....	13,652
Total ...	2,67,58,001	2,96,29,184	36,65,036	7,93,853
Net Increase ...				28,71,183

United Kingdom.—The imports increased by 2¼ lákhs or 5·28 per cent., chiefly in chemical products, coals, cotton piece-goods, liquors, millwork and machinery, provisions, ships and parts of ships, and sugar. Decreases occurred in apparel, books and other printed matter, candles, metals and wood.

Austria.—There was an increase of 6½ lákhs or 48·31 per cent., noticed chiefly in apparel, chemical products, cotton twist, lamps, jewellery, metals, paper and pasteboard, pipes and articles for the consumption of tobacco, sugar and treasure.

France exhibited an increase of about a lákh of rupees or 29·85 per cent., chiefly in candles, coffee, cotton twist, fruits and vegetables, metals and sugar.

Italy showed an increase of a little over ¼ lákh or 21·15 per cent. in treasure.

All other Countries in Europe also showed an increase of about ¼ lákh or 20·20 per cent., chiefly in amber beads, machinery and millwork, metals, sugar and tobacco.

United States of America showed an increase of 3¾ lákhs or 17·26 per cent., chiefly in cotton piece-goods and timber.

Egypt.—There was a decrease of about 6 lákhs in treasure. The trade proper, however, increased by about Rs. 32,000 or 22·53 per cent. in drugs and medicine, fruits and vegetables, provisions and tobacco, and the decreases in cotton piece-goods, metals, telegraph materials and treasure.

Massowah.—The trade with this port increased by over a lákh of rupees or 9·82 per cent. chiefly in grain, gums, skins, jute bags and shells. There was a large decrease, however, in treasure.

Suakin exhibited an increase of 1¼ lákhs or 39·04 per cent. observed chiefly in gums, skins and shells.

East Coast of Africa, Other Ports, showed an increase of 5½ lákhs or 11·51 per cent. in animals living, feathers, skins, ivory, mats and shells, but there were decreases under coffee, gums, hides, perfumery, provisions and treasure.

Zanzibar and the Mainland.—There was a decrease of over 1¼ lákhs, but this was entirely due to decreased remittances of treasure. The trade proper increased by over 1¾ lákhs or 56·13 per cent., observed chiefly in articles by post, cotton piece-goods, feathers, seeds and sugar.

Mauritius and Mahé increased by Rs. 1,39,755 or 58·76 per cent. due entirely to increased imports of sugar.

Arabian Ports.—The trade increased largely during the year by about 10¼ lákhs or 8·37 per cent. in coffee, cotton piece-goods, gums, skins, jewellery (pearls), jute bags, mats, perfumery, shells, sugar and tobacco, but decreased in drugs and medicines, grain, oil, provisions, seeds and largely in treasure.

Turkey in Asia.—There was an increase of a little more than ½ lákh or 6·68 per cent. in fruits and vegetables, grain, soap and tobacco.

Persia showed an increase of ¾ lákh or 36·26 per cent. in gums, wet dates and tobacco, but there were decreases in cotton raw, fruits and vegetables, grain and treasure.

Straits Settlements exhibited an increase of over ¾ lákh or 25·01 per cent. due to cotton piece-goods, drugs and medicines, earthenware, gums, metals, sugar and treasure; there was a decrease, however, in coffee and spices.

China, Hongkong, showed an increase of over ¾ lákh or 31·96 per cent. in fireworks, spices and sugar.

Other Countries in Asia decreased by about ½ lákh or 91·88 per cent. in oil and indigo, but increased in tea, jewellery and treasure.

Foreign Trade: Exports.

Merchandise export exhibited an increase of Rs. 26,89,731 or 9·30 per cent.; treasure also increased by Rs. 12,666 or 0·32 per cent. Taking merchandise and treasure together an increase is observed of Rs. 27,02,397 or 8·23 per cent. The distribution of exports contrasted with that in 1891-92 is shown below :—

Countries.	1891-92.	1892-93.	1892-93. Increase.	1892-93. Decrease.
	Rs.	Rs.	Rs.	Rs.
United Kingdom	21,91,895	21,98,667	6,772	.....
Austria	10,34,300	11,01,758	67,458	.....
France	34,04,792	40,45,379	6,40,587	.....
Italy	3,33,219	2,56,400	.....	76,819
Turkey in Europe	1,18,124	53,238	.....	64,886
Other Countries in Europe	3,00,717	4,02,106	1,01,389	.....
United States of America	67,72,682	76,07,052	8,34,370	.....
Egypt	8,68,132	5,35,550	.....	3,32,582
East Coast of Africa. Massowah	9,04,289	11,00,341	1,96,052	.....
East Coast of Africa. Suakin	1,74,628	1,25,892	.....	48,736
East Coast of Africa. Other Ports	41,40,436	50,75,269	9,34,833	.....
East Coast of Africa. Zanzibar—Island and Mainland ...	5,76,888	7,70,717	1,93,829	.....
Mauritius and Mahé	94,003	52,638	.....	41,365
Arabia	87,91,690	88,58,497	66,807	.....
Perim Island	1,68,988	2,63,811	94,823	.....
Turkey in Asia	62,395	1,40,008	77,613	.....
Persia	82,738	88,379	5,641	.....
Straits Settlements	78,350	95,893	17,543	.....
Australia	5,628	25,902	20,274	.....
Java	1,012	3,580	2,568	.....
China (Hongkong)	25,325	18,402	.....	6,923
Japan	6,286	15,765	9,479	.....
Other Countries in Asia	3,906	7,576	3,670	.....
Total ...	3,01,40,423	3,28,42,820	32,73,708	5,71,311
Net Increase ...				27,02,397

United Kingdom showed an increase of Rs. 6,772 or 0·30 per cent., but really the trade proper increased by Rs. 65,000, as remittances in treasure, to the extent of Rs. 59,000, were made in 1890-91; the increases were chiefly under arms, coffee, ivory, perfumery and shells, but decreases were observed in drugs and medicine, feathers and skins.

Austria increased by Rs. 67,458 or 6·12 per cent., due to coffee, feathers, gums, shells and treasure, but there was a decrease in hides.

France.—There was an increase of Rs. 6,40,587 or 15·83 per cent. in coffee, gums and ivory. There were decreases, however, in skins, shells and treasure.

Italy decreased by about ¾ lákh or 29·95 per cent. in coffee, hides and natural curiosities; there was an increase under the head of skins.

Turkey in Europe decreased by Rs. 64,886 or 121·86 per cent. in cotton piece-goods and hides, but there was an increase in the export of skins.

Other Countries in Europe showed an increase of one lákh or 25·21 per cent. in coffee, gums and skins, but a decrease in hides.

United States of America increased by Rs. 8,34,370 or 10·96 per cent. chiefly in coffee, skins, ivory, perfumery, shells, spices and wool. There was, however, a decrease in hides.

Egypt exhibited a large decrease of Rs. 3,32,582 or 62·10 per cent. under coffee, fibre, hides, seeds, silk and treasure; but increase was observed in drugs and medicine and gums.

Massowah showed an increase of about 2 lákhs or 17·81 per cent. in cotton, oil, spices, sugar, tobacco and treasure; but a decrease in coffee, gums and provisions.

Suakin decreased about ½ lákh or 38·71 per cent. in animals living, grains, oils, provisions, spices and tallow.

East Coast of Africa, Other Ports, showed an increase of Rs. 9,34,833 or 18·42 per cent. in cotton piece-goods, grains, skins, provisions, sugar and tobacco; there was a decrease, however, in apparel and treasure.

Zanzibar and the Mainland.—An increase of about 2 lákhs or 25·13 per cent. was noticed, due to coffee, cotton piece-goods, spices, tobacco and treasure; but there were decreases in carriages and carts and provisions.

Mauritius and Mahé exhibited a decrease of Rs. 41,365 or 78·58 per cent. in coffee and treasure; but there was an increase in provisions and salt.

Arabia.—The increase was Rs. 66,807 or 0·75 per cent., but really the increase in the trade was Rs. 2,94,000 (as treasure decreased by 2¼ lákhs), which was noticed under the principal articles of trade, *viz.*, apparel, candles, chemical products, drugs and medicine, earthenware, fireworks, fruits and vegetables, glass, grains, metals, paper, perfumery, silk, spices, sugar and wool. There was a decrease, however, in coffee, cotton, gums, leather, liquors, provisions, tobacco and treasure.

To *Turkey in Asia* exports increased by Rs. 77,613 or 55·43 per cent. due to coffee, glass, grains, gums, lamps, provisions and soap; decrease was observed in cotton piece-goods.

Perim showed an increase of about Rs. 94,823 or 35·94 per cent. in fruits and vegetables, grains, liquors, oils, provisions, sugar, tobacco and treasure.

In other cases the differences were small and do not need remark.

Indian Trade: General.

Trade in general increased by Rs. 10,78,480 or 7·59 per cent. Merchandise increased by Rs. 19,95,118 or 1·59 per cent., whilst treasure decreased by Rs. 9,16,638 or 46·38 per cent.

Imports.

The total imports of merchandise from British India were valued at Rs. 1,18,81,413, of which amount Rs. 1,11,83,384 represented merchandise, and Rs. 6,98,029 treasure. There was an increase of Rs. 18,29,114 or 16·35 per cent. under the former, and a decrease of Rs. 3,90,277 or 55·91 per cent. under the latter. Imports from Bombay increased from Rs. 87,47,727 to Rs. 92,72,505, and those from Bengal from Rs. 12,39,653 to Rs. 20,98,930, the latter due to a large increase in the imports of rice and sugar. Imports from Karáchi also increased from Rs. 3,29,490 to Rs. 3,98,448, while those from Madras fell of.

Exports.

The total exports were valued at Rs. 23,14,755 or Rs. 3,60,357 less than in the previous year. The decrease was however entirely confined to treasure, the exports of which fell 41·17 per cent. The exports of merchandise proper increased by Rs. 1,66,004 or 16·01 per cent.

North-East African Trade.

Under this head are included all ports on the coast of Africa from Massowah to Rás Hafun comprising the ports in the protectorate of the Italian, French and British Governments, and those belonging to the Mijjertain and Danákil. The total value of the trade was Rs. 99,11,947 as against Rs. 1,02,53,116 in the previous year. There was an increase of Rs. 95,053, Rs. 9,72,636, and Rs. 1,03,502 respectively in the trade with the French, British custom, and British free ports on the Somáli Coast; while there was a fall of over 14 lákhs in the trade with the Italian ports.

Inland Trade: Import and Export.

During the year under report the number of camel-loads of produce brought into Aden decreased by 17,470 or 10·59 per cent., due to diminished imports of coffee, fruits and vegetables, fodder, grains and miscellaneous articles. The value of the land import trade was Rs. 32,32,347, a decrease of Rs. 3,45,928 or 10·70 per cent. The value of the land export trade with the mainland of Arabia was Rs. 18,54,585, an increase of Rs. 1,43,887 or 7·75 cent. under the cotton piece-goods, oils, miscellaneous articles and treasure.

General Trade: Principal fluctuations.

Taking the whole trade of Aden, the following are some of the most notable fluctuations of the principal articles of import and export in comparison with the previous year. The figures given are in lákhs of rupees :—

		Coals.	Coffee clean.	Cotton piece-goods.	Raw Hides.	Raw Skins.	Grains & Pulse.	Gums & Resins.	Shells.	Tobacco.	Treasure.
Imports.	1892-93 ...	26	89¼	57	½	32	32½	7¼	6½	16½	40¼
	Increase or decrease.	+½	+7¼	+8½	−1	+11	+10¼	+¾	+3¼	+4¾	−15

		Coffee clean.	Cotton piece-goods.	Raw Hides.	Raw Skins.	Grains & Pulse.	Gums & Resins.	Shells.	Treasure.	Tobacco.
Exports.	1892-93	109	40½	¾	33½	25¼	9¼	6¾	51¾	9¾
	Increase or decrease.	+4½	−1½	−2¾	+5¾	+6¼	+¾	+2¼	−6	+¾

Merchant Shipping.

The total number and tonnage of merchant vessels which entered the port of Aden for the past two years are given in the following table :—

Description.		1891-92.		1892-93.		Increase or Decrease.	
		No.	Tons.	No.	Tons.	No.	Tons.
Entered ...	Steam...	1,572	582,221	1,359	2,212,476	−213	−369,745
	Sailing	...	...	3	2,463	+3	+2,463
	Country Craft	1,367	49,264	1,338	48,627	−29	−637
	Total ...	2,939	2,631,485	2,700	2,263,566	−239	−367,919
Cleared ...	Steam...	1,573	2,585,808	1,360	2,213,887	−213	−371,921
	Sailing	...	...	3	2,463	+3	+2,463
	Country Craft	1,343	49,977	1,344	49,873	+1	−104
	Total ...	2,916	2,635,785	2,707	2,266,223	−209	−369,562

This showed a decrease of 213 in the number or 15·69 per cent., and 369,745 in the tonnage or 17·61 per cent. of merchant steam vessels that entered the port during the year under notice. Three sailing ships of 2,463 tons entered the port; there were no sailing ships the year previous. There was also a decrease in the number of country craft that entered the port, *viz.* 29 or 2·16 per cent. of 637 tons or 1·31 per cent. Of the total number of vessels that entered the port during the year under report, 356 called for or discharged coals, 854 called for or landed cargo, 33 called for water or provisions, 87 called for mails, 12 called for telegrams, orders or letters, 1 called for bill of health, 11 called for or landed passengers, 5 called for repairs, 1 called to land sick, and 2 called but had no communication with the port.

Public Works.

Civil Works.

The total expenditure of the year on Civil Works was Rs. 56,14,161 as below:—

Outlay in India.		Rs.	Rs.
Imperial ...		...	2,62,269
Provincial		34,44,404	
Suspense ...		35,558	
			34,79,962
Contributions	Imperial	5,160	
	Provincial	1,36,848	
	Excluded Local Funds	4,47,706	
			5,89,714
Incorporated Local Funds		12,82,198	
Suspense ...		18	
			12,82,216
Grand Total ...			56,14,161

In round figures the expenditure on new works was Rs. 24½ lákhs; on repairs 19½ lákhs; on establishment 11½ lákhs; and on tools and plant about ¾ lákh. The corresponding expenditure in the previous year was 31 lákhs, 19½ lákhs, 11½ lákhs and 1 lákh.

The gross outlay under the head Civil buildings was Rs. 24,28,388 of which Rs. 2,67,429 were on buildings classed under Imperial Services and Rs. 21,60,959 on those classed under Provincial Services. Under the former no new important works were undertaken, the principal of those in progress being the erection of offices and quarters for the Customs and Salt Departments at Castle Rock and the construction of various buildings on the Somáli Coast. Under the latter new offices were constructed for the Revenue Department at Broach, Alibág and other places; a large distillery was completed at Surat; and good progress was made with the Central Jails at Ahmedábád and Hyderábád. A large number of educational institutions were constructed and enlarged. The St. George's Hospital at Bombay was completed and a large number of improvements carried out at various medical institutions throughout the Presidency. The gross outlay on original works falling under the head Communications from Provincial and Local Funds and Contributions amounted to Rs. 6¾ lákhs. The most important work completed was the new iron bridge over the Sábarmati at Ahmedábád. The gross outlay under the head Miscellaneous Public Improvements on original works was Rs. 3½ lákhs, the most important being the Dhulia water works and Hubli water scheme. The actual cost of establishment of all classes was Rs. 18,18,828 as against Rs. 17,59,349 in the previous year, the percentage on outlay being 28·8 as against 25·2 in 1891-92. The revenue realized during the year was Rs. 15,39,018 as against Rs. 14,30,419; of this Rs. 5,21,046 were under the head of Irrigation Major Works and Rs. 7,99,954 under the head of Civil Works. Toll revenues yielded Rs. 6,36,051 as against Rs. 5,82,654 in 1891-92.

Civil Buildings.

Imperial Services.

The expenditure under Imperial Services was Rs. 2,67,429, sub-divided as under:—

	Rs.
Original Works ...	1,25,994
Repairs ...	91,426
Establishment ...	47,313
Tools and Plant ...	2,696
Total ...	2,67,429

The expenditure in 1891-92 was Rs. 2,95,920.

Forest.

Minor additions and alterations were carried out during the year to the Forest Rangers' offices at Nandurbár, Navápur and Sindkheda, in the Khándesh Collectorate, and an old building in the fort at Dhadgaon was adapted for use as the Forest Ranger's office, at a cost of Rs. 829.

Salt.

The roads at Bombay in connection with the Mátunga Salt Pans, mentioned in the last report, were in progress. In the Thána Collectorate, a Customs office at Manori was completed at a cost of Rs. 2,968; also the road from Umela to Pápdi, described in the last report, the total outlay on which was Rs. 14,308, and that of the year

Rs. 6,826. In the Surat Collectorate, the quarters for the Sir-Kárkún and his establishment at Dharásna, in progress in the past year, were completed at a total outlay of Rs. 3,385 and Rs. 8,591, respectively. In the Ahmedábád Collectorate, the breaches which occurred in the water-supply tank at Khárághoda, mentioned in the last report, were filled in, and a puddle wall carried through the centre of the new bank, and through the old bank up to the flanking wall of the south waste weir, the latter being extended up to a distance of 800 feet; further progress was stopped owing to the heavy rainfall, which filled the tank, but no accident occurred, and it will probably be necessary to carry on the puddling process still further when the season permits; the outlay of the year was Rs. 9,102, and the total outlay Rs. 14,198, against the sanctioned estimate of Rs. 30,636. In the Dhárwár Collectorate, at Castle Rock, a station on the Southern Marátha Railway, the work of constructing offices and quarters for the Customs and Salt Departments, the sanctioned estimates for which amounted to Rs. 91,171, was commenced and in progress during the year, and Rs. 9,734 expended up to its close. Estimates for a shed, platform and sidings, amounting to Rs. 50,872, to be constructed by the Railway Company, were also sanctioned, and an allotment of Rs. 37,500 made, but no outlay was incurred during the year. In the Kánara Collectorate, a pier, preventive office, and weighing shed at Sánikatta, in progress since 1890-91, were completed during the year at an outlay of Rs. 12,349, against the estimate of Rs. 14,626. In the Kolába Collectorate, the peons' lines at Panvel, Agar, Sonagar and Chikhli, and also at Malekhind near Karanja, for the Sir-Kárkún's office, and at Garthana for the Daroga's office at Karanja, commenced last year, were completed at a cost of Rs. 7,899, Rs. 5,175, Rs. 5,535, and Rs. 2,494, respectively; and an approach road from the Uran-Karanja Road to the Sir-Kárkún's new office at Malekhind, was completed at a cost of Rs. 3,324, and opened for traffic in November 1892. In the Karáchi Collectorate, the náiks' and peons' quarters at the Maurypur Salt-works were extended, at a cost of Rs. 2,267, to give additional accommodation.

Additions and alterations were in progress at the Post Office stables at Bombay, and completed at a cost of Rs. 2,721. **Post Offices.**

The special repairs to Barracks Nos. 8 and 9, occupied by the Telegraph Department at Sukkur, described in the last report, were completed at a total cost of Rs. 18,404, of which Rs. 1,495 were expended during the year. Some minor additions and alterations to the Indo-European Telegraph buildings at Karáchi were completed at a total cost of Rs. 1,180. **Telegraphs.**

At Baroda, a spiral iron staircase was provided to the Residency building, and special repairs to the building and compound railing carried out at a total cost of Rs. 2,710; and a new record-room and tent-room completed at a cost of Rs. 3,763. **Administration.**

The budget grant for works on the Somáli Coast for the year was Rs. 81,500, and the principal works carried out were as follows: A civil dispensary was commenced at Zaila, and completed at an outlay of Rs. 3,467. A guard-room and prison at Dubar were commenced, and completed at an outlay of Rs. 5,438. A guard-house at Ambos was completed during the year at a cost of Rs. 3,458; and Camel Savárs' lines, with stables, at Dubar were in progress, and Rs. 10,193 expended up to the close of the year. A payment of Rs. 5,506, on account of outstanding liabilities in connection with the defensible quarters at Karam, which were practically completed in the past year, was made during the year. The enlargement of the goods zariba at Bulhar was commenced, and completed at a cost of Rs. 2,946. Under Communications improvements were effected to the Rugger, Shaik Jarato, and Dari passes at an outlay of Rs. 8,723. **Somáli Coast Works.**

The expenditure from Provincial and Local Funds, and Contributions, and including the outlay on Forest and Customs buildings, was Rs. 21,60,959, subdivided as under:— **Provincial Services.**

	Rs.
Original Works	12,48,487
Repairs	3,65,375
Establishment	5,18,699
Tools and Plant	28,398
Total ...	21,60,959

The expenditure in the previous year was Rs. 25,79,392.

Mámlatdárs' kacheris, on the standard plan, in progress in the past year, were completed at Erandol, in the Khándesh Collectorate, for Rs. 28,641; at Igatpuri in the Násik Collectorate, at a total cost of Rs. 29,101; and at Hubli in the Dhárwár Collectorate, for Rs. 28,838, excepting a portion of the paving and a few minor items; and the work of protecting the sides of the hillock on which the Mámlatdár's kacheri and Police lines at Ron stand, was completed at a cost of Rs. 3,034. Minor additions and alterations were carried out to the Mámlatdárs' kacheris at Bhusával, Sháháda, Páchora, Dhulia, Sindkheda, Chálisgaon, and Shirpur, in the Khándesh Collectorate. In Sind, in the Hyderábád Collectorate, the new mukhtyárkarate at Kandiaro, commenced last year, was completed at a cost of Rs. 18,603, and that at Nausháhro, also in progress from the last year, was not quite finished, the total outlay to the close of the year being Rs. 18,528, leaving work to the extent of Rs. 3,966 to be done. In the Karáchi Collectorate the two new mukhtyárkarates at Ladium and Kotri Allah Rakhia Shah, mentioned in the last report, **Administration.**

PRODUCTION AND DISTRIBUTION.

were completed for Rs. 16,157 and Rs. 15,488, respectively. The work of re-roofing and making additions and alterations to the mukhtyárkarate at Tando Mahomad Khán, in the Hyderábád Collectorate, was completed at a total cost of Rs. 5,257; as also the additions and alterations to the kardarate at Lárkhána, on which the total outlay amounted to Rs. 2,458. Record accommodation was provided at the Collector's kacheri at Kárwár, at a total cost of Rs. 6,232, inclusive of the outlay on record-stands for the new Survey record-room. In the Ratnágiri Collectorate, a general record-room for the Collector's kacheri at Ratnágiri was in progress, and Rs. 7,824 expended; also record-stands estimated to cost Rs. 4,399; and the record-room with stands for the Survey records were completed at a total cost of Rs. 8,277. The new Revenue offices at Broach, described in the report for 1887-88, were completed during the year at a total cost of Rs. 56,644. New offices for the Collector of Dhárwár, commenced last year, were nearly completed, with the exception of a few minor items; the total outlay was Rs. 26,958, against the revised estimate of Rs. 31,662. In the Kolába Collectorate, at Alibág, offices for the Collector and Assistant Collectors, &c., which were in progress last year, were completed at a total cost of Rs. 21,000. Special repairs to the Assistant Collector's bungalow at Tando Mahomed Khan, commenced in the past year, were completed during the year at a total cost of Rs. 3,842. A new district bungalow at Navalgund, in the Dhárwár Collectorate, in progress last year, was completed at a cost of Rs. 5,779. In connection with Government houses, at Malabár Point, Bombay, new quarters for 72 servants were completed at a total cost of Rs. 39,892; additions and alterations were made to the stables at a cost of Rs. 11,965; two latrines for servants were provided at an outlay of Rs. 2,653; and the work of laying a new 6" water-pipe, to replace the existing 4" pipe, was commenced, and Rs. 2,226 expended against the sanctioned estimate of Rs. 3,075. At the Government House at Mahábaleshvar special repairs to the verandah of Bungalow No. 1 were executed at a cost of Rs. 2,446, against the estimate of Rs. 5,013. Under Political Buildings a Court and Police office for the Assistant Political Agent, Mahi Kántha, at Sádra, were commenced as Excluded Local Fund works, and Rs. 2,238 spent out of the estimate of Rs. 3,425; the work of laying on water to the Residency garden at Rájkot was completed at a cost of Rs. 3,485; and a new record-room and certain additions to the Agency office at Bhúj provided at a cost of Rs. 3,201. In the past year the Resident at Aden brought to the notice of Government the difficulty that existed in regard to obtaining house accommodation for two of his Assistants, and stated that should Government approve, he would endeavour to obtain sites, and submit definite proposals, with plans and estimates. Plans and estimates were accordingly prepared and submitted for two bungalows, one at the Crater and the other at Steamer Point, aggregating Rs. 21,370, including Rs. 2,300 for the purchase of a site for the former. The Government of India accorded their sanction to the construction of the two buildings, and to the rent of each being fixed at Rs. 50 per mensem, as a special case. Funds not being available for their construction during the year, a grant of Rs. 2,300 for the purchase of the site in the Crater was made. The improvements to the Residency at Aden, commenced in the past year, were completed during the year, in which the outlay was Rs. 2,073, and the total outlay Rs. 8,272, against the sanctioned estimate of Rs. 8,423. For the Native State of Wajiria, bungalows for District Officers were built at Jalodra and Wajiria, at a cost of Rs. 2,763 and Rs. 2,951, respectively. A treasury and jail were also constructed at Wadia for Rs. 3,060. For the State of Mehelol, a gateway, with an upper story, was built at a cost of Rs. 2,679. The new distillery buildings at Surat were completed during the year at a total cost of Rs. 1,01,745, and handed over to the department; but certain additions and alterations to the mowra refuse-shed, found necessary, remained to be carried out from savings on the sanctioned estimate. The additional accommodation for the A'bkári Department at Steamer Point, Aden, in progress from the past year, was completed at a total outlay of Rs. 14,766, of which Rs. 8,754 were spent during the year. In connection with the general scheme for special repairs to Provincial buildings at Sukkur, Rs. 3,989 were expended during the year in re-roofing Barrack No. 15. Very little now remains to be done, and it was expected that the whole would be completed in 1894-95.

Minor Departments.

Some very necessary works of maintenance to the ancient buildings in the interesting old city of Chámpáner, and at Hálol in the Panch Mahals District, were in progress, on which Rs. 1,625 were expended during the year. At Ahmedábád, repairs were executed to the various architectural buildings at a total outlay of Rs. 3,738. The Gondeshvar temples at Sinnar were thoroughly examined during the past year, and it was found that the cost of putting them into thorough repair would be very high; it was also discovered that the moslem dome over one of the temples had been erected by private agency. Measurements were made of parts where renewals were most urgently required. At the suggestion of the Superintendent, Archæological Survey, the temples at Balsane, in the Khándesh Collectorate, were inspected and reported on, but no outlay was incurred. At Bijápur special repairs to the Gol Gumbaz and Ibrahim Roza were in progress, and the outlay to the end of the year amounted to Rs. 13,362 and Rs. 2,328, against the estimated amounts of Rs. 16,570 and Rs. 3,621; Rs. 1,433 were also spent during the year on the conservation of the old Mahomedan buildings. The repairs to the mosque at Dábhol, in the Ratnágiri Collectorate, were in progress, and Rs. 2,365 were expended to the close of the year.

Law and Justice.

In the High Court building at Bombay, teakwood record-racks, similar to those in the Secretariat, were under construction in rooms 29, 30, 31 and 34, the sanctioned estimate for

which amounted to Rs. 5,986, and the outlay to the close of the year to Rs. 2,995. Additions and alterations to the Claremount premises at Byculla, with a view to adapting the building for the accommodation of the Courts of the 2nd and 4th Presidency Magistrates, were sanctioned and in progress during the year, and Rs. 7,776 expended to its close, against the sanctioned estimate of Rs. 14,933. Under District Judges' Courts, the record-rooms for the District Judge's Court at Dhulia, under construction in the past year, were completed at a cost of Rs. 10,119; and special minor repairs to the roofs of the Court-houses at Hala and Hyderábád were completed or in progress. The Railway Magistrate's bungalow at Bhusával, in the Khándesh Collectorate, mentioned in the last report, was completed during the year at a total cost of Rs. 5,388. The Subordinate Judges' Court-houses at Yával and Dhulia, in the Khándesh Collectorate, in progress from the past year, were completed at a cost of Rs. 5,774 and Rs. 5,863; the Subordinate Judge's Court-house at Málvan, reported last year, as practically completed, was entirely completed at a cost of Rs. 16,126. Minor additions and alterations were carried out to the Subordinate Judges' Court-houses at Amalner and Shirpur in the Khándesh Collectorate.

Ecclesiastical.

The compound wall, with entrance gate, for the cemetery at Camp Devláli, was completed during the year at a cost of Rs. 4,419.

Jails.

The work of constructing a new Central Jail for Gujarát at Áhmedábád, described in the last report, was vigorously pushed on. The enclosure wall was completed, and all the interior buildings, with the exception of a few minor ones, were virtually finished. The outlay of the year was Rs. 1,63,227, bringing up the total outlay to Rs. 4,49,389, against the sanctioned estimate of Rs. 5,41,714. In connection with the new Central Jail for Sind at Hyderábád, the general design and arrangement of which were described in last year's report, the following buildings were completed:—6 out of 10 main barracks, hospital for males, all quarters for warders, Jailor's quarters, with out-houses and compound wall, quarters for Deputy Jailor, matrons, clerks, and hospital assistant and Superintendent's quarters, servants' quarters, stables, and compound wall, two sides of main enclosure wall, latrines, one polygon enclosure, and three cook-rooms; 11 other buildings were finished to the roofs, which remained to be put on. It was expected that the jail would be completed and ready for occupation by July 1894; but the question of water service remained unsettled, pending a definite reply from the municipality as to the charge that would be made if the water was supplied by them. The total estimated cost of the project was Rs. 4,56,040, and the total outlay to the end of the year was Rs. 2,24,500; the expenditure during the year being Rs. 1,85,020. Alterations to the condemned cells in the District Jail at Shikárpur were completed at a cost of Rs. 2,194.

Police.

The budget-estimate for the year included a sum of Rs. 1,30,000 for outlay in connection with the scheme for the provision of suitable quarters for the District Police, which was in progress for some years, of which Rs. 96,530 were for lines in progress from the previous year, and Rs. 33,470 for new major and minor works. The actual progress in detail is given in the following statement:—

District.	Station.	Nature of Work.	Number of men to be accommodated.	Estimated cost.	Expended during the year.	Remarks.
				Rs.	Rs.	
Thána	Bándra	Earth-filling round the Police lines ...	...	152	150	Completed.
Do.	Chinchni	Police lines	4	1,385	1,356	Do.
Do.	Gowalvádi ...	Do.	5	1,607	1,194	In progress.
Do.	Waishagre ..	Do.	5	1,688	1,596	Completed.
Do.	Mátheráu	Adding two rooms to the Police lines.	...	500	497	Do.
Surat	Bulsár	Prolonging the verandah roof of the Police lines.	...	442	442	Do.
Do.	Válod	Providing continuous weather-boards to the Police lines.	...	274	268	Do
Broach	Broach	Providing new cloth ceiling to the record-room of the Police Superintendent's office.	...	133	132	Do.
Surat	Surat	Certain additions to the Police Accounts Office and Police record-room in the Castle.	...	32	14	Do.
Kaira	Umreth	Police lines	15	4,846	3,048	Nearly completed.
Do.	Nadiád	Do.	66	20,105	3	Completed in 1891-92.
Do.	Wadia	Do.	10	2,700	1,168	In progress.
Rewa Kántha ...	Pándu	Do.	3	865	322	Do.
Panch Mahals ...	Godhra	Constructing record-racks in the Police Head-quarters record-room.	...	230	230	Completed.
Ahmedábád ...	Pálanpur ...	Police lines	55	10,893	5,212	Do.
		Stables	36	3,880	3,803	Do.
		Magazine	...	1,962	1,588	Do.
		Chief Constable's quarters	1	2,035	1,577	Do.
		Well	...	...	757	Do.
Do. ...	Ahmedábád ...	Water-supply to Barodri Pága ...	...	23	22	Do.
Sholapur ...	Bársi	Town Police lines	17	4,898	657	Do.
Do. ...	Hotgi	Police outposts	2	589	296	Do.
Poona	Poona	Additions and alterations to the residence of the District Superintendent of Police.	...	3,627	1,620	Completed at a total cost of Rs. 3,620.
Do.	Paud	Police lines	20	6,533	3,333	In progress.
Do.	Awlas	Do.	5	1,712	967	Do.

District.	Station.	Nature of Work.	Number of men to be accommodated.	Estimated cost.	Expended during the year.	Remarks.
				Rs.	Rs.	
Ahmednagar ...	Ahmednagar ...	Certain additions and alterations to the quarters occupied by the Chief Constable of Nagar Táluka.	...	386	385	Completed.
Do. ...	Do. ..	Constructing a latrine for the Chief Constable's quarters at Nagar.	...	76	72	Do.
Do. ...	Do. ..	Improvements (in the drainage) to the City Police lines.	...	69	69	Do.
Násik	Niphád	Police lines	14	5,100	1,903	Do.
Do.	Chándor	Do.	4	2,302	1,125	Buildings Rs. 1,015 Latrines Rs. 110.
Do.	Bárhe, táluka Peint.	Do.	3	1,170	1,092	In progress.
Do.	Násik	Ridge ven tilators to the Police lines at Násik.	...	1,253	400	Completed.
Do.	Málegaon	Latrine accommodation in connection with the Police line.	...	170	68	
Khándesh ...	Mukti	Constructing lock-up for prisoners ...	...	1,208	1,207	
Do. ...	Shelvi	Construction of a Police outpost ...	4	1,149	511	
Do. ...	Arvi	Do. do. ...	3	873	205	
Do. ...	Dhulia	Constructing two new sets of latrines of 17 and 20 seats for females and males of Bhil Corps.	...	1,767	677	
Do. ...	Dondaicha... ...	Constructing lock-up	...	1,501	339	
Do. ...	Yával	New Police lines	9	2,360	482	
Do. ...	Talváda	Making alterations to the Police line ...	...	38	34	
Belgaum... ...	Talevadi	Police lines	4	1,962	1,961	Completed.
Dhárwár.... ...	Hubli	Lines for the Treasury Guard in the Mámlatdár's Kacheri.	10	3,518	1,686	In progress.
Bijápur	Nidgundi	Outpost Police lines	6	2,417	1,779	Do.
Do.	Bijápur	Additions and alterations to the Head-quarter Police lines.	...	1,954	78	Completed; Rs. [illegible] spent in 1891-92.
Kánara	Bhatkal	Police lines	24	8,241	3,142	Completed; Rs. 4,753 spent in 1891-92.
Do.	Honávar	Do.	32	10,988	5,694	In progress.
Ratnágiri and Kolába.	Vengurla	Do.	40	14,184	3,235	Do.
Do. ...	Harcheri	Do.	5	1,382	401	Completed; Rs. 977 spent in 1891-92.
Do. ...	Alibág	Office for the Superintendent of Police and Chief Constable.	...	6,733	700	Completed; Rs. 6,000 spent in 1891-92.
Sátára	Nándgaon	Police lines	9	2,407	1,067	Completed; Rs. 1,400 spent in 1891-92.
Do.	Árla	Do.	2	717	761	Completed.
Do.	Sátára	Laying down pipes to bring water into City Police lines.	...	331	279	Do.
Begári Canals ...	Kandkot	Police lines	13	2,299	153	Do.
Do. ...	Thul	Do.	13	4,637	3,622	Do.
Do. ...	Kashmor	Do.	13	4,239	3,426	Do.
Do. ...	Gaospur	Do.	13	4,727	3,425	Do.
Do. ..	Khaira Garhi ...	Do.	13	4,023	3,014	Do.
Shikárpur Canals.	Sukkur	Additions and alterations to Police Inspector's quarters.	1	1,686	986	Do.
Do. ...	Garhi Tego ...	Chief Constable's quarters	1	150	150	Do.
Do. ...	Nijabate	Police Thána	3	150	150	Do.
Do. ...	Naoladi	Do.	3	150	150	Do.
Do. ...	Kambra	Do.	3	150	150	Do.
Do. ...	Sarhad	Do.	3	150	150	Do.
Do. ...	Kandra	Do.	14	6,833	1,850	In progress.
Western Nára ...	Dádu	Compound and gate to cattle-shed of Police lines.	...	46	44	Completed.
Do. ...	Do.	Pavement, Chief Constable's quarters...	1	127	104	Do.
Do. ...	Do.	Additional rooms and stables for two horses for Police lines.	5	2,163	2,002	Do.
Do. ...	Talti	Police Thána	3	400	400	Do.
Eastern Nára ..	Khipra	Police lines	11	4,970	4,390	Do.
Do. ...	Phuladi	Police Thána	6	2,180	2,119	Do.
Hyderábád Canals	Tando Allahyar ...	Additions and alterations to Police lines.	20	10,192 Revised.	6,023	Do.
Do. ...	Mitháni	Police lines	7	2,224	1,243	Do.
Do. ...	Singhoro	Police Thána	3	229	229	Do.
Do. ...	Matári	Dividing hall into 4 apartments and altering portion of stables into cattle-pound.	3	174	159	Do.
Fuleli Canals ...	Talhar	Police lines	13	5,681	4,523	In progress.
Do. ...	Tando Gulám Haidar.	Do.	7	2,210	1,457	Completed.
Karáchi Canals ...	Ládium	Do.	20	10,667	8,221	Do.
Do. ...	Kotri Allah Rakhia Shah.	Do.	20	10,669	4,453	Do.
Do. ...	Keti Bandar ...	Lock-up	...	1,336	592	Do.
Do. ...	Karáchi	Additions to store-room, District Superintendent of Police.	...	2,775	907	In progress.
Hyderábád ...	Hyderábád (Manjhi Dhoro).	Police Thána on Hyderábád-Gidu road.	4	135	135	Completed.
		Total ...	629	2,30,789	1,18,831	

Educational. The progress with Educational buildings, classed as Provincial, was as follows:—The additions and alterations to the Elphinstone Middle School, Bombay, described in the last report, were nearly completed at the close of the past year. Proposals for certain additional

works were made and sanctioned towards the close of the year, and some outlay incurred on the purchase of materials. The outlay of the year was Rs. 4,322, and the total outlay from the commencement of the work Rs. 61,010, against the sanctioned estimate of Rs. 66,814. The residence for the Principal of the Deccan College, with out-houses, described in the last report, was completed during the year at a total cost of Rs. 22,822, against the sanctioned estimate of Rs. 25,436. The improvements to the Vishrámbág High School. Poona, mentioned in the last report, were completed during the year at a total cost of Rs. 2,620. Additional rooms, estimated to cost Rs. 2,748, were in progress at the High School at Nadiád, in the Kaira Collectorate, and Rs. 1,722 expended to the close of the year. Plans and estimates were prepared for new buildings for a High School at Dhulia, with accommodation for 500 boys, at an estimated cost of Rs. 59,086. The progress with buildings towards the cost of which Government contributed grants-in-aid, and which were under execution by Public Works officers, was as follows:—The Anjuman-i-Islam School building, which was described in the report for 1889-90, and the main tower of which was approaching completion at the close of the past year, was completed during the year at a total cost of Rs. 1,32,313, of which Rs. 41,898 were spent during the year. A laboratory for the Wilson College was commenced and completed during the year. The outlay was Rs. 8,693, against the estimate of Rs. 9,831. At St. Joseph's Convent School, Karáchi, the accommodation for the resident students being insufficient, owing to the steady increase in their numbers, a third storey was added during the year. The estimate amounted to Rs. 10,788, of which one-half was contributed by Government, and the other half by the Lady Superior of the Convent. The work was completed at a cost of Rs. 10,763. The progress with school buildings, the cost of which was defrayed from Local or Municipal funds, under execution by the Public Works Department, was as follows:—School-houses were completed at Jeur, for 100 boys, for Rs. 2,622, and at Pemgeri and Bhátodi, in the Ahmednagar Collectorate, for 60 and 40 boys, for Rs. 1,404 and Rs. 979, respectively; at Nánded and Málpur, in the Khándesh Collectorate, for 150 and 80 boys, for Rs. 3,140 and Rs. 2,643; at Náregal, Hálikeri, Sortur and Yaogul, in the Dhárwár Collectorate, for 100, 60, 50 and 80 boys, for Rs. 4,533, Rs. 2,779, Rs. 2,680 and Rs. 3,271, respectively; at Chadchan and Nidgundi, in the Bijápur Collectorate, for 150 and 100 boys, for Rs. 4,768 and Rs. 4,135; additions and alterations were completed to the school-house at Revdánda, in the Kolába Collectorate, for Rs. 2,963; and a new school-house for 200 boys in connection with the School of Industry at Ratnágiri was completed at a cost of Rs. 11,724. School-houses at Bagni, Yellur and Wasagda, in the Sátára Collectorate, were completed at a total cost of Rs. 1,019. School-houses were in progress at Karjat, in the Kolába Collectorate, for 75 boys, and Rs. 2,030 expended; at Benadi for 100 boys, and Manoli for 200 boys, in the Belgaum Collectorate, and Rs. 685 and Rs. 6,585 expended; at Mántur for 75 boys, Masur for 100 boys, and Sanklepur for 150 boys, in the Dhárwár Collectorate, the outlay thereon being Rs. 2,071, Rs. 2,468 and Rs. 1,992; at Guhághar and Murúd, in the Ratnágiri and Kolába Collectorates, for 150 and 125 boys, the outlay being Rs. 1024, and Rs. 1,023. The school-houses in the Central Division commenced and in progress during the year were as follows:—

Name of Place.	For number of Boys.	Estimated Cost.	Expenditure of the year.
		Rs.	Rs.
Mamurabad	60	1,698	792
Nadgaon	40	1,277	830
Fagna	60	1,698	1,438
Kapadna	60	1,698	1,413
Bhadli	100	2,941	1,288
Wiware	150	3,640	1,252
Nimbhora	100	2,753	1,140
Rasalpur...	60	1,698	755
Manwell	40	1,277	753
Kochur	60	1,698	773
Nimbol	40	1,277	556
Padalsi	80	2,247	956
Neri	80	2,145	935
Waghali	125	3,419	2,121
Kalmadu...	40	1,277	1,058
Girad	40	1,277	1,005
Kadgaon...	80	2,137	1,099
Tandulvádi	80	2,390	759
Wársi	80	2,247	965
Dangshirváda	40	1,208	267
Nagardeola	150	3,640	1,940
Páchora	100	2,753	308
Shelgaon	60	1,698	699
Tamasvádi	80	2,247	1,352
Total ...	...	50,340	24,454

Plans and estimates were prepared for a Vernacular School for 600 boys at Dhulia, the estimated cost of which was Rs. 38,111. At Tharushah, in the Hyderábád Collectorate, the roof of the Local Fund School-house was removed, and a new roof was in progress, the outlay on which to the close of the year was Rs. 1,695. At Igatpuri, in the Násik Collectorate, a school-house was constructed by the Municipality; and the Public Works Department was called upon to prepare valuation statement to enable the Municipality to claim a grant-in-aid from Government. Alternative plans and estimates for a Convent School-house at the same station, to-accommodate 70 children, including a dormitory for girls, were also prepared, and forwarded to the Educational Department.

Medical.

Under the head of Medical the progress was as follows:—At St. George's Hospital, Bombay, the male hospital was completed and handed over for occupation at the beginning of December 1892. The Resident Surgeon's quarters, described in the last report, were completed; also the erection of the iron railing along the eastern boundary of the hospital. The expenditure in the year was Rs. 1,56,421, and the total expenditure Rs. 5,76,428, against the sanctioned estimate of Rs. 6,18,786. The cinerator and sheds for horses and cattle suffering from contagious diseases at Sewri, Bombay, described in the last report, were completed during the year, in which the outlay was Rs. 2,901, and the total outlay Rs. 5,215, against the estimate of Rs. 5,919. The Sir Dinshaw Mánekji Petit and Bái Motlibái Hospitals, and Dwárkádás Lallubhoy Dispensary, Bombay, were completed in the past year. The outlay of the year was Rs. 52,353, and the total outlay, including the purchase of land, Rs. 4,62,483, against the estimate of Rs. 4,70,426. The Hospital for Women and Children in the City of Poona, described in the last report, was completed, with the exception of a revetment wall and the entrance gate. The estimate amounted to Rs. 42,428, of which Rs. 36,252 were spent. The additions and improvements to the West Hospital at Rájkot, in progress during the past year, were completed during the year, at a total cost of Rs. 11,111, of which Rs. 7,186 were spent during the year, against the sanctioned estimate of Rs. 11,112. At the Civil Hospital at Bijápur, the additions and alterations commenced in the past year were completed at a total outlay of Rs. 7,167, against the estimate of Rs. 7,270. Two additional night wards at the Lunatic Asylum, Dhárwár, commenced last year, were completed. The construction of latrines and compound wall was suspended. The outlay to the close of the year was Rs. 5,325. The European General Hospital at Steamer Point, Aden, described in the report for 1889-90, was completed in the past year, and was occupied on the 30th April 1892. A complete outfit of new furniture, according to the Military Works Department types, was provided during the year, at an outlay of Rs. 3,920. Quarantine sheds on the Alia Island, Aden, were constructed at a cost of Rs. 6,653. A new dispensary was practically completed at Jhálod, in the Panch Maháls Collectorate, at a total cost of Rs. 7,148, against the estimate of Rs. 7,643. Additions were made to the dispensaries at Párner and Mirajgaon in the Ahmednagar Collectorate, and some minor improvements to those at Shirgaon and Mirajgaon; a dispensary was in progress at Kalvan, in the Násik Collectorate; a new dispensary at Navápur, in the Khándesh Collectorate, commenced in the past year, was under construction during the year. The expenditure of the year was Rs. 3,449, and the total expenditure Rs. 4,676, against the estimate of Rs. 9,670. Dispensaries at Páchora and Sháháda, estimated to cost Rs. 9,125 and Rs. 9,458, respectively, were commenced during the year; good progress was made with the former, the outlay being Rs. 5,507; but very little progress was made on the latter, owing to sanction being received very late. Quarters for the hospital assistant at Amalner were completed at a total cost of Rs. 2,222; and quarters for the hospital assistants of Taloda and Shirpur were in progress, and Rs. 1,252 and Rs. 1,189 spent, against an estimate in each case of Rs. 2,258. A dispensary at Ránebennur, in the Dhárwár Collectorate, was commenced during the year, and Rs. 2,802 spent, against the estimate of Rs. 5,007.

Miscellaneous.

The building in the compound of the Head Police Office at Byculla, which is to serve for an office for the Protector of Pilgrims, and for the reception of stores in connection with the intestate and unclaimed property coming into the hands of the Police, was commenced and completed, at a total cost of Rs. 7,194. A building for Secretariat peons, consisting of seven rooms, partitioned off by brick masonry walls, was constructed at a total cost of Rs. 4,120.

Communications.

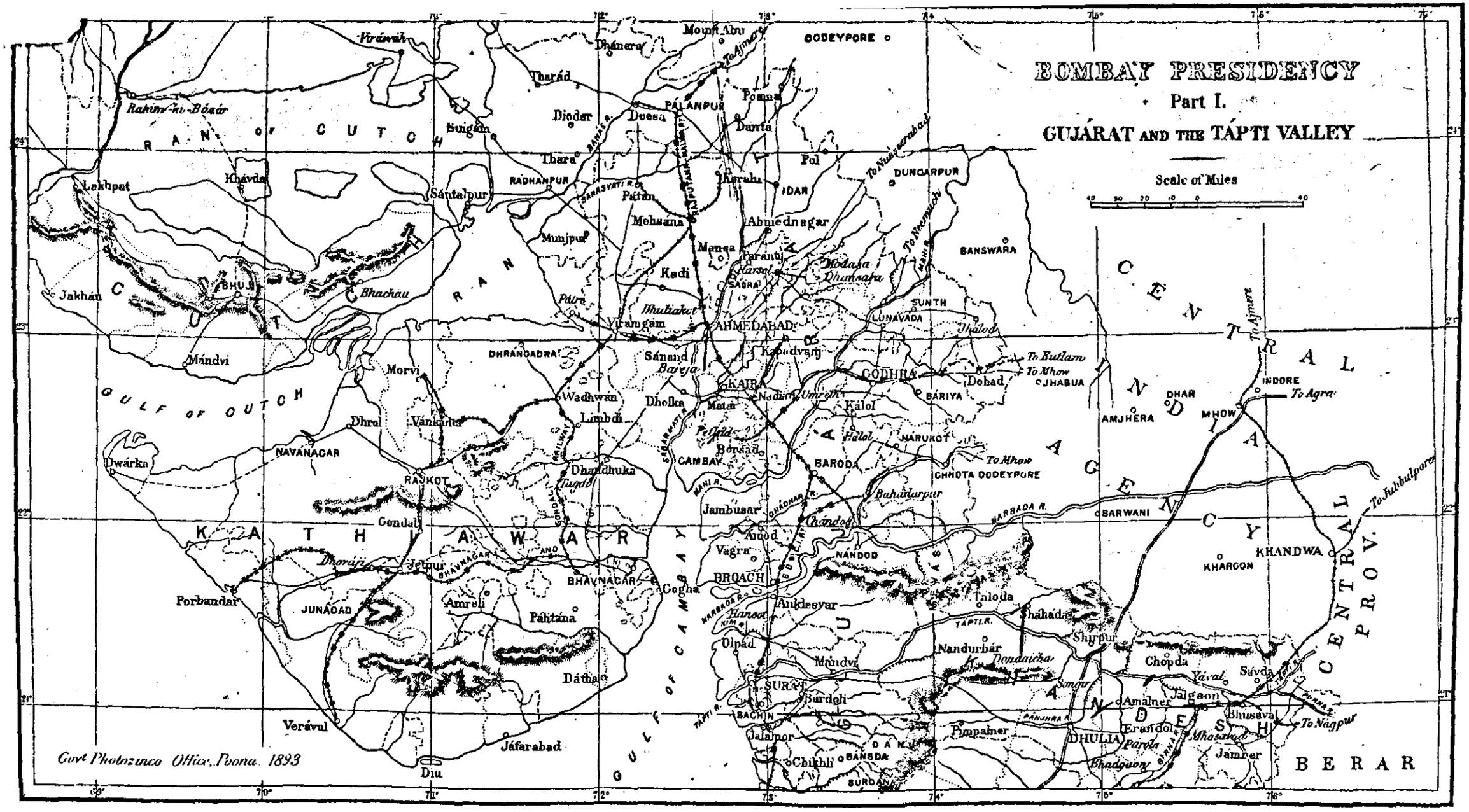
Roads.

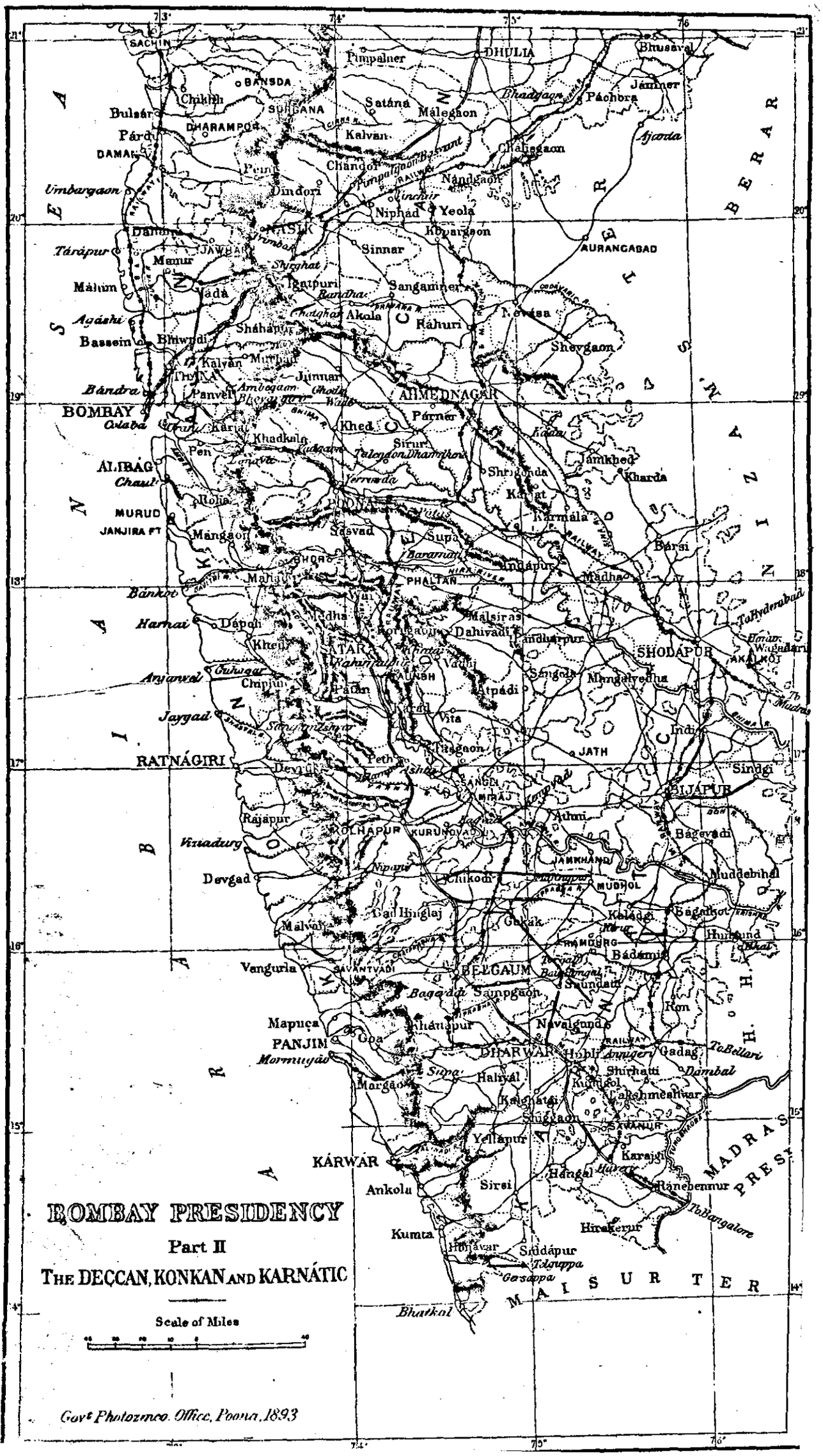
The total outlay on Communications was Rs. 26,50,054, subdivided as under:—

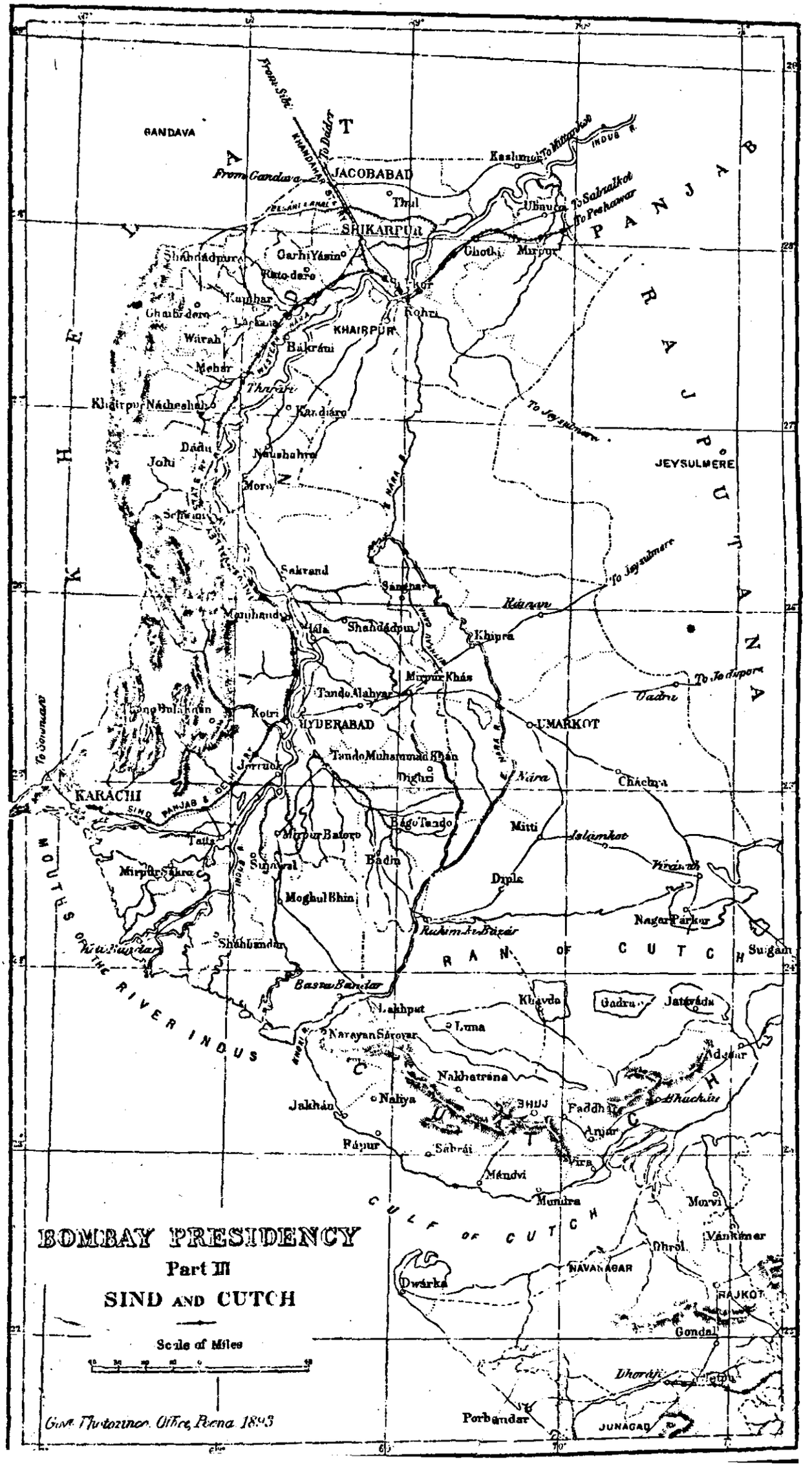
	Rs.
Original Works	6,43,766
Repairs	14,41,477
Establishment...	5,27,988
Tools and Plant	36,823
Total ...	26,50,054

as against Rs. 29,13,320 in the previous year. A map, in three sheets, is attached, on which are shown the principal lines of road in progress during the year. The works carried out during the year were as follows:—

Northern Division.—In the Ahmedábád district, the road from Dhansura to Harsol was completed during the year, the work of raising the girders of the Waragám bridge being successfully carried out before the rains, after which a wooden roadway was laid thereon. The total cost of the road was Rs. 1,05,814 against a revised estimate of


BOMBAY PRESIDENCY
Part I.
GUJÁRAT AND THE TÁPTI VALLEY
Scale of Miles
RAN OF CUTCH
CUTCH
GULF OF CUTCH
KATHIAWAR
GULF OF CAMBAY
CENTRAL INDIA AGENCY
CENTRAL PROV.
BERAR
KHANDESH
DANG
Rahim-ki-Bóár
Vírámgh
Mount Abu
ODEYPORE
Dhánera
Tharád
Pounna
PÁLANPUR
Deesa
Diodar
Danta
Sungam
Thara
Pul
DUNGARPUR
Lakhpat
Khávda
Sántalpur
RADHANPUR
Pátan
Kerahu
IDAR
Mehsana
Ahmednagar
Munjpur
Mansa
Paranij
Kadi
Modasa
Dhunsafa
BANSWARA
Jakhau
BHUJ
Bhachau
Pátri
Mhuliakot
Viramgam
AHMEDABAD
SUNTH
LUNAVADA
Jhalod
Mándvi
DHRANGADRA
Sánand
Kapadvanj
Morvi
Bareja
KAIRA
GODHRA
Dohad
JHABUA
Wadhwan
Dholka
Nadiad
Umreth
BÁRIYA
INDORE
DHAR
MHOW
Dhrol
Vánkaner
Limbdi
Mata
Kálol
AMJHERA
NAVANAGAR
Bóriad
CAMBAY
Halol
NARUKOT
Dwárka
RAJKOT
Dhandhuka
BARODA
CHHOTA OODEYPORE
Jambusar
Chándod
BARWANI
Gondal
Anod
Vagra
NANDOD
KHANDWA
KHARGON
Porbandar
Jetpur
BHAVNAGAR
BROACH
Gogha
Anklesvar
Taloda
JUNAGAD
Amreli
Pahtana
Shahada
Olpad
Nandurbár
Shirpur
Mándvi
Chopda
Dátha
SURAT
Bardoli
Amalner
Jalgaon
Verávul
SACHIN
Pimpalner
Erandol
DHULIA
Bhusaval
Jalalpor
Chikhli
BANSDA
Jámner
Jáfarabad
Diu
SURDAN
Govt Photozinco Office, Poona 1893


BOMBAY PRESIDENCY
Part II
THE DECCAN, KONKAN AND KARNÁTIC
Scale of Miles
Govt Photozinco. Office, Poona, 1893
SACHIN
DHULIA
Bhusaval
Pimpalner
BANSDA
Chikhli
SUHGANA
Satána
Málegaon
Jámner
Páchora
Bhadgaon
Bulsár
DHARAMPUR
Kalvan
Párdi
DAMAN
Ajanta
Chalisgaon
Chándor
Nándgaon
Umbargaon
Dindori
Niphad
Yeola
Kopargaon
Dahanu
NASIK
Sinnar
AURANGABAD
Tárápur
JAWHAR
Mokhada
Igatpuri
Sangamner
Máhim
Vada
Akola
Ráhuri
Nevasa
Agáshi
Shahápur
Bassein
Bhiwndi
Shevgaon
Kalyán
Murbad
Jinnar
Bándra
Panvel
AHMEDNAGAR
BOMBAY
Ovaba
Karjat
Párner
Khed
Khadkala
Sirur
Pen
Jámkhed
ALIBÁG
Chaul
Shrigonda
Kharda
Karjat
Roha
PUNA
Karmála
MURUD
JANJIRA FT
Mángaon
Sásvad
Supa
Bársi
Bánkot
Indápur
Madha
Harnai
Dápoli
Mahad
PHALTAN
Tahyderabad
Málsiras
Dahivadi
Pandharpur
Khed
SATÁRA
Anjanvel
Chiplun
Pátan
Vádhi
SHOLÁPUR
Sángola
Mangalvedha
Jaygad
Atpádi
Vita
Indi
Tásgaon
JATH
RATNÁGIRI
Peth
Devgad
SANGLI
MIRAJ
Sindgi
BIJÁPUR
Rájápur
KOLHÁPUR
KURUNVADI
Athni
Bágevadi
Vizadurg
JAMKHANDI
Nipani
Muddebihal
Devgad
Chikodi
MUDHOL
Gad Hinglaj
Gokak
Kaládgi
Bágalkot
Malvan
RAMDURG
Hungund
Bádámi
Vengurla
SAVANTVADI
BELGAUM
Saundatti
Bagada
Sampgaon
Ron
Mapuça
Shánápur
Navalgund
PANJIM
Goa
DHARWAR
Hubli
Annigeri
Gadag
To Bellari
Mormugão
Supa
Halyal
Shirhatti
Dambal
Margáo
Kalghatgi
Kundgol
Lakshmeshwar
Sudgaon
SAVANUR
Yellápur
Karajgi
KÁRWÁR
Hángal
Ránebennur
Ankola
Sirsi
To Bangalore
Hirekerur
Kumta
Honávar
Sudápur
Talgappa
Gersoppa
Bhatkal
MADRAS PRESIDENCY
MAISUR TERR.


BOMBAY PRESIDENCY
Part III
SIND AND CUTCH
Scale of Miles
Govt. Photozinco. Office, Poona 1893
GANDAVA
JACOBABAD
SHIKARPUR
KHAIRPUR
HYDERABAD
KARACHI
UMARKOT
JEYSULMERE
RAJPUTANA
PANJAB
RAN OF CUTCH
GULF OF CUTCH
MOUTHS OF THE RIVER INDUS
INDUS R.
NAVANAGAR
RAJKOT
JUNAGAD
Porbandar
Dwarka
Gondal
Morvi
Mundra
Mandvi
Bhuj
Anjar
Nakhatrana
Lakhpat
Luna
Narayan Sarovar
Jakhan
Nalya
Rapur
Sabrai
Khavda
Gadra
Jatavada
Adesar
Thachin
Nagar Parkar
Suigam
Chachra
Islamkot
Mitti
Diplo
Badin
Tando Muhammad Khan
Digri
Tando Alahyar
Mirpur Khas
Khipra
Sanghar
Sakrand
Shahdadpur
Hala
Manjhand
Kotri
Jerruck
Tando Bulakhan
Mirpur Batoro
Sujawal
Tatta
Mirpur Sakro
Shahbandar
Basra Bandar
Ruhman Bazar
Moghul Bhin
Kandiaro
Naushahro
Mehar
Warah
Ghauri dero
Kumbar
Larkana
Bakrani
Rohri
Ghotki
Mirpur
Ubauro
Kashmor
Shahdadpur
Garhi Yasin
Kandhar
Khairpur Nacheshah
Dadu
Johi
Sehwan
Thar
Rann
Vadu
Chhachhar
Dhoraji
Porbandar
Vankaner
Dhrol
Jatavada
Gadra
Adesar
Thachin
To Sukkur
From Sukkur
To Dadar
From Gandava
To Sahrakot
To Peshawar
To Mittankot
To Jeysulmere
To Jodpore
To Sonmiani

Rs. 1,06,318, and Rs. 24,648 were expended during the year. The whole of the earth-work and masonry on the Ahmedábád-Bareja road was completed during the year. Progress was made with the work of restoring the old Dhánduka-Tagdi road and Rs. 2,000 spent during the year. The iron bridge over the Sábarmati was completed and opened to traffic. The expenditure during the year amounted to Rs. 22,517, bringing the total outlay up to Rs. 4,14,969 against an estimated cost of Rs. 4,58,400. In the Kaira district, the Matar-Wasna road was completed at a cost of Rs. 8,664 during the year. Progress was made with the Petlád-Cambay road. In the Surat district the metalling on 4 miles of the Sáchin portion of the Surat-Sáchin road and on the Sachin-Lajpur road was completed with the exception of the rolling and consolidating. The construction of a low level wooden-pile bridge on the Khadi on the Surat-Sáchin road was in progress; Rs. 1,945 out of an estimate of Rs. 7,964 were expended. The bridge over the Morwani Nála on the Puna-Saroli road in the Sáchin State was completed at a total cost of Rs. 3,655. Two bridges, one of iron over the nála near Ránder on the Hope Bridge Rander road, and the other of wooden-piles on the road from Hope Bridge to Bathá in Chorási táluka were in progress. In the Thána district the Dáhánu-Jawhár road was completed at a total cost of Rs. 2,19,284, of which Rs. 9,775 were expended during the year. The Bhiwndi-Váda road was also completed. The Waldhán bridge on the Kalyán and Mahálset Ghát road was completed at a cost of Rs. 11,890. Progress was made with the earth-work and muramming of the Bháyndar-Utan road. The unmetalled Nanivle and Medwan Khind, Manor-Wada, and Kalyán-Dhysar roads were practically completed and opened to traffic during the year.

Central Division.—In the Poona district the work of examining the foundations and restoring the piers of the Dápuri bridge was in progress, the outlay for the year being Rs. 9,752. The two bridges mentioned in the last report over the Sud Nála and Bhima river were completed at a cost of Rs. 19,764 and Rs. 40,098 respectively. The Ghoda-Ambegaon road was completed at a cost of Rs. 52,402. In the Ahmednagar district improvements were carried out on the unmetalled Supa-Pimpalgaon Depa, Shrigonda-Kharda, and Shrigonda-Kashti roads. The works on the extension of the Randha-Sámrad and Jámgaon-Kotul roads, started to provide employment for the Kolis, were in progress during the year. Rs. 8,429 were expended on the re-metalling of the Ghoti-Bárighát road and the ghát portion of the Hásteh-Bárhe road was completed. Progress was made with the work of constructing the Nevása-Shevgaon road, 5 miles being completed during the year. The survey for the deviation of the Kalvan-Thengoda road was finished during the year. In the Násik District the bridge near Manmád on the road to Kopergaon was in progress. The metalling of the Násik-Trimbak road was completed. In the Khándesh district Rs. 4,371 were expended on metalling the Bombay-Agra road; and progress was made with two bridges, one over the Owadi Nála, which was in course of construction, and another over the Mosám river which was in course of repair. Rs. 9,261 were expended on the second section of the Dondaicha-Sháháda road and Rs. 11,819 on the 2nd and 3rd sections of the Dhulia-Amalner road. The cross-road at Erandol was completed during the year. Progress was made with the junction road at Bhadgaon, with the Jakriabari Ghát road in the Dángs, with the Bhusával-Jalgaon road, with the improvements to the Bhadgaon-Talwada road and with the metalling of the Jalgaon-Dharangaon road. The work of constructing approaches to the Tápti river on the Dharangaon-Chopda road made rapid progress during the year. In the Sholápur district improvements were carried out to the Local Fund roads from Sholápur to Bársi, Mohol to Pandharpur, Temburni to Málsiras, and Pandharpur to Poona. The metalling of the Jeur-Karmála road was in progress. The improvements on the unmetalled Akalkot-Hannur and Sángvi-Wágdári roads were completed and the roads opened to traffic during the year. In the Sátára district the road from Tásgaon to the Ashta road station was metalled at a cost of Rs. 6,380.

Southern Division.—In the Belgaum district the Provincial roads from Nipáni to Mahálingpur and Gokák to Navalgund were nearly completed during the year; the total outlay on these roads up to date was Rs. 3,07,642 and Rs. 4,04,204 respectively. The unmetalled roads from Manoli to Saundatti and Bágevádi to Bail-Hongal were completed during the year; those from Sankeshwar to Hukeri, Saundatti to Dhárwár and Dhupdal station to Gokák were in progress. The work of improving the road from Kurbet to Yádvad and constructing a road from Kágvad to Kampvad were commenced during 1892-93 as a famine relief work; but the operations were confined to establishing famine camps and collecting road materials. In the Bijápur district improvements were effected on the unmetalled Bijápur-Sindgi, Bijápur-Indi and Almel-Pandharpur roads. The roads from Hungund to Ilkal and Kerur to Katgeri, the latter of which was commenced originally as famine relief work, were in progress; the total outlay on these roads up to date was Rs. 18,784 and Rs. 17,684 respectively. The land for the Huvin-Hippargi-Telgi road was taken up at a cost of Rs. 413 during the year. In the Kánara district a sum of Rs. 24,406 was expended during the year in collecting and spreading metal on the Talguppa-Gersuppa Provincial road. Work was in progress on the Koney sea slope road at Kárwár. The Balse bridge on the road from Ankola to the Madras frontier was completed at a cost of Rs. 5,097, as was the Kadrehalla Nála bridge on the South Kánara Frontier Road. The work of special repairs to the Bedti Nála bridge was nearly completed. In the Ratnágiri and Kolába districts a stone crossing over the Washisti Creek on the Provincial road from Ratnágiri to Poladpur was repaired and improved at a cost of Rs. 4,817; the roads from Chiplún to Guhágar and Kallikhind to Palaspe were in progress.

Sind.—In the Shikárpur Canals District Rs. 5,055 were spent on repairing the Rohri-Hyderábád road and a beginning was made with the bridge over the Rajibwah on the Jafarábád-Abad-Mehláni road. The bridge over the Maharwah on the Mirpur-Mathelo road was completed at a cost of Rs. 5,250. The road from Miani to Pir Sabro was raised and metalled. In the Begari Canals district four bridges, one on the Mirpur Chanu road, another on the Thal-Mirpur road, and two on the Kumbri Mahar road were commenced during the year. In the Ghár Canals district five small bridges on the Khairo Garhi-Shahdádpur road, and one over the Shah Hamir at Arijá were put in hand during the year. In the Western Nára District the Arthurwah bridge on the Lárkhána-Nasirabád road and the Dokri bridge over the Nára were completed during the year at a cost of Rs. 2,365 and Rs. 19,436 respectively. The work of widening the spoil banks of the Mithrao Canal in the Eastern Nára district was completed during the year at a cost of Rs. 9,910.

Surveys.

Surveys of various roads in the Thána, Násik, Khándesh, Sholápur, Sátára, Belgaum and Bijápur districts, with a view mainly to their being ready as famine relief projects when required, were completed or in progress.

Boat Bridges and Ferries.

A new wire-rope, which was ordered from England, and arrived late last year, was raised during the year on the flying bridge at Tákli, in the Sholápur district. The outlay was Rs. 1,358.

Accommodation for travellers.

Dharmshalas at Vajiria in the Sankeda Mewas and at Dhumwad, táluka Kálghátgi in the Dhárwár district, were completed during the year; while progress was made in the work of converting the kacheri at Jeur, in the Sholápur district, into a dharmshala. In the Province of Sind a bungalow at Rato-dero in the Ghár Canals district and a dharmshala at Shadipáli in the Eastern Nára district were completed and a bungalow at Warah nearly so. The additions and alterations to the Hyderábád bungalow were also finished.

Arboriculture.

The planting and preserving of road-side trees on Provincial roads in all districts of the Northern, Central and Southern Divisions as well as the formation of nurseries for future planting continued to receive careful attention during the year.

Miscellaneous Public Improvements.

The outlay under this head was Rs. 5,00,143, subdivided as follows:—

	Rs.
Original Works...	3,80,141
Repairs ...	48,260
Establishment ...	65,667
Tools and Plant	6,075
Total ...	5,00,143

The expenditure in the previous year was Rs. 5,26,236. The works carried out were as follows:—

Markets.

A municipal market for the town of Bágalkot, in the Bijápur district, commenced during 1891-92, was completed during the year at a cost of Rs. 12,314, against the estimate of Rs. 12,762.

Paving and streets.

Masonry storm-water drains were constructed along the sides of the new roads on the Esplanade in Bombay. These consisted of a masonry channel on each side of the roads, for the conveyance of the storm-water to the municipal storm-water drain in Hornby Road. The work was completed at a total cost of Rs. 11,906. A commencement was made with the work of improving the roads on the Esplanade with a view to their being made over to the Municipality.

Water supply.

The Ahmedábád water-works, described in former reports, were handed over to the Municipality. The work of sinking a well at the proposed head works of the Surat water-works—the object of which is to ascertain if a sufficient supply can be got without constructing an infiltration gallery in the bed of the river—was in progress. Schemes for the water-supply of Ahmednagar, Yeola, Násik and Dhárwár were under examination during the year. Fair progress, considering the scarcity of labour available, was made with the Dhulia water-works during the year. The waste-weir cutting and outlet on the main dam of the Dedargaon tank were completed and work was started on the supply main. The expenditure during the year was Rs. 25,753, making a total of Rs. 1,10,202 up to date. The Hubli water-works made excellent progress during the year. The earth-work on the dam was nearly completed, as was the waste weir and channel. A large quantity of main and distribution piping was laid and jointed. The expenditure during the year amounted to Rs. 1,77,714. The Victoria Jubilee water-works at Janjira were completed and good progress made with the work of improving the mains from the Nachna Head Works dam to the service reservoir at Ratnágiri, the outlay for the year being Rs. 3,839.

The chief works for the improvement of the village water-supply were the following. Sixteen new wells were in course of construction in the Kaira district, of which 10 were completed. A sum of Rs. 1,700 out of an estimate of Rs. 3,547 for improvements to the tank at Gamph in the Ahmedábád district was spent during the year. In the Sholápur district a survey of three village tanks for famine relief works was finished. In the Khándesh district the well at Ajnad, referred to in the last report, was completed, and

a beginning made with the reconstruction of the Babhla Tank dam. A well at Devarsigihalli in the Sampgaon táluka of the Belgaum district was completed during the year. In the Dhárwár district three tanks, originally begun as famine works, were completed; the improvements to two others were in progress. In the Bijápur district two wells at Hire Hodlur and Karagnur were completed, while ten others were in progress. The work of the Sonar Bavdi was also approaching completion. In the Sátára district wells at Jondhalkind and Ghoti were in progress and the work of providing a water-supply to the village of Ozari in the Jávli táluka was taken in hand during the year.

Sewerage including drainage.

The project for draining a portion of the town of Ahmedábád was carried out, and completed as far as designed; an extra length of 700 feet is now being added out of savings. The sewage farm was connected with the pumping station, and was found to work fairly well. The work of house connections is being done entirely by the municipality, and a large number of connections are being put in daily. The expenditure during the year amounted to Rs. 23,658, making a total of Rs. 44,695, out of an estimated cost of Rs. 54,066. A survey was sanctioned and work was commenced in connexion with the drainage of Hubli. A survey was also completed for the drainage of Chopda.

Miscellaneous.

The protective works to exclude floods from the City of Surat from the Tápti river, described in the previous report, were in progress. The whole of sections 1 to 5 and 7 to 10 were practically completed, while section No. 6 of the work is still under the consideration of the municipality. A total expenditure of Rs. 1,27,561 was incurred from the commencement of the work, against the sanctioned estimate of Rs. 1,98,255. At Bijápur the supplementary programme of clearance of prickly-pear by convicts, described in last year's report, was in progress during the year. The total outlay to the end of the year was Rs. 2,17,045, against the estimate of Rs. 2,57,873.

MILITARY WORKS.

General.

The following stations remained under the control of the Bombay Public Works Department during the year:—Ahmednagar, Sirúr, Purandhar, Khandála and Sátára in the Poona District; Málegaon, Bhuj, Baroda, Surat, and Thána in the Bombay District; and Ahmedábád and Rájkot in the Deesa District. In the reports for 1890-91 and 1891-92 the question of the loss to Provincial Revenues by the transfer of Military Works at the larger stations to the control of the Director General of Military Works, was referred to, and it was stated that the Bombay Government had preferred a claim for compensation to the amount of Rs. 70,000, but that the Government of India had refused to entertain it in full, though they had agreed to share the loss; and that, as this decision was not considered equitable by the Bombay Government, and an agreement could not be come to, the matter had been referred to the Secretary of State for final orders, which were awaited. His Lordship's decision was communicated to the Bombay Government by the Government of India, and conveyed his opinion that that Government had met the claim advanced in an adequate manner by offering to allow to the Bombay Provincial Revenues a sum of Rs. 35,000. In accordance with this decision, an adjustment to that extent for each of the years 1890-91 and 1891-92, was made by the Government of India; and an increase of Rs. 70,000 was also made by the local Financial Department to the Public Works Provincial assignment for the year. The expenditure during the year on Military Works (including contributions) amounted to Rs. 1,90,621, of which Rs. 50,075 were for original works, Rs. 86,292 for repairs, Rs. 29,877 for establishment, Rs. 2,008 for tools and plant, and Rs. 22,369 for Barrack Department. The works carried out during the year under each head were as follows:—

Buildings for European Troops in the plains.

The roof of No. IV old Persian barrack, Royal Artillery, at Ahmedábád Camp, was put in order at a cost of Rs. 4,057.

Buildings for European Troops in the Hills.

The re-roofing of Barracks Nos. 1 and 2 at Purandhar, was completed at a total expenditure of Rs. 15,510, of which Rs. 5,014 were spent during the year, against the estimate of Rs. 15,525. The work of fixing iron gutters to the eaves of the four barracks, which was estimated to cost Rs. 2,747 was in progress during the year. The Regimental Institute, including canteen and cook-house, at Khandála, was completed, with the exception of colouring and fixing window bonnets. The estimated amount was Rs. 19,162, and Rs. 18,474 were expended.

Buildings for Native Troops.

A new magazine for storing small arms ammunition at Bhuj, which was reported to be in progress in the last report, was completed during the year, at a cost of Rs. 7,802, against the sanctioned estimate of Rs. 9,300. Rs. 443 were expended during the year.

Stud.

A new work-shed, divided into two compartments, for carpenters and blacksmiths respectively, was constructed for the Remount Depôt at Ahmednagar, at a cost of Rs. 2,446; and the gear godown of the depôt was specially repaired and provided with stone flooring at a cost of Rs. 490.

General Cantonment Works—Water-supply

The works at the *Pashan Tank*, as well as the pipes, cisterns, &c., for the water supply of Kirkee, were maintained in an efficient state at a total cost of Rs. 2,334; this included Rs. 747 for establishment. At Ahmednagar Rs. 899 were expended during the year on maintenance and repairs to the *Bhingar Aqueduct*, from which the Suddur Bazaar and the European Infantry and Artillery Barracks are supplied with water. The work in connection with the Sátára Camp water-supply was fully described in the last report. As mentioned therein, a revised estimate amounting to Rs. 70,465, against the original estimate of

Rs. 51,970, was prepared and submitted for the sanction of Government. The work of constructing the settling tank and filter beds was taken in hand and nearly completed by the end of the year. The total expenditure during the year amounted to Rs. 15,382, and from the commencement to Rs. 40,332.

Fortifications.

The improvements to the fortified post at Ahmedábád, described in the last report, were completed at a total cost of Rs. 6,985, against the sanctioned estimate of Rs. 7,524, the expenditure incurred during the year being Rs. 557. The work in connection with the Purandhar fort, commenced in the past year, could not be completed during the year as expected, owing to the situation being such that a large number of men could not be employed. During the year Rs. 1,410 were spent, making a total of Rs. 3,402, against the estimate of Rs. 4,363. Various minor works were carried out during the year in the fort at Ahmednagar. The conversion of the old Arsenal at Málegaon into a *Fortified Post* was in progress. The design and estimate for this work were prepared after inspection of the old buildings by the Executive Engineer, Military Works, Poona. The original estimated cost of the work was Rs. 1,603, but as several items had been omitted, a revised estimate, amounting to Rs. 2,011, became necessary. The expenditure during the year was Rs. 1,728, and, with the exception of the main gate, the work was at the end of the year practically completed.

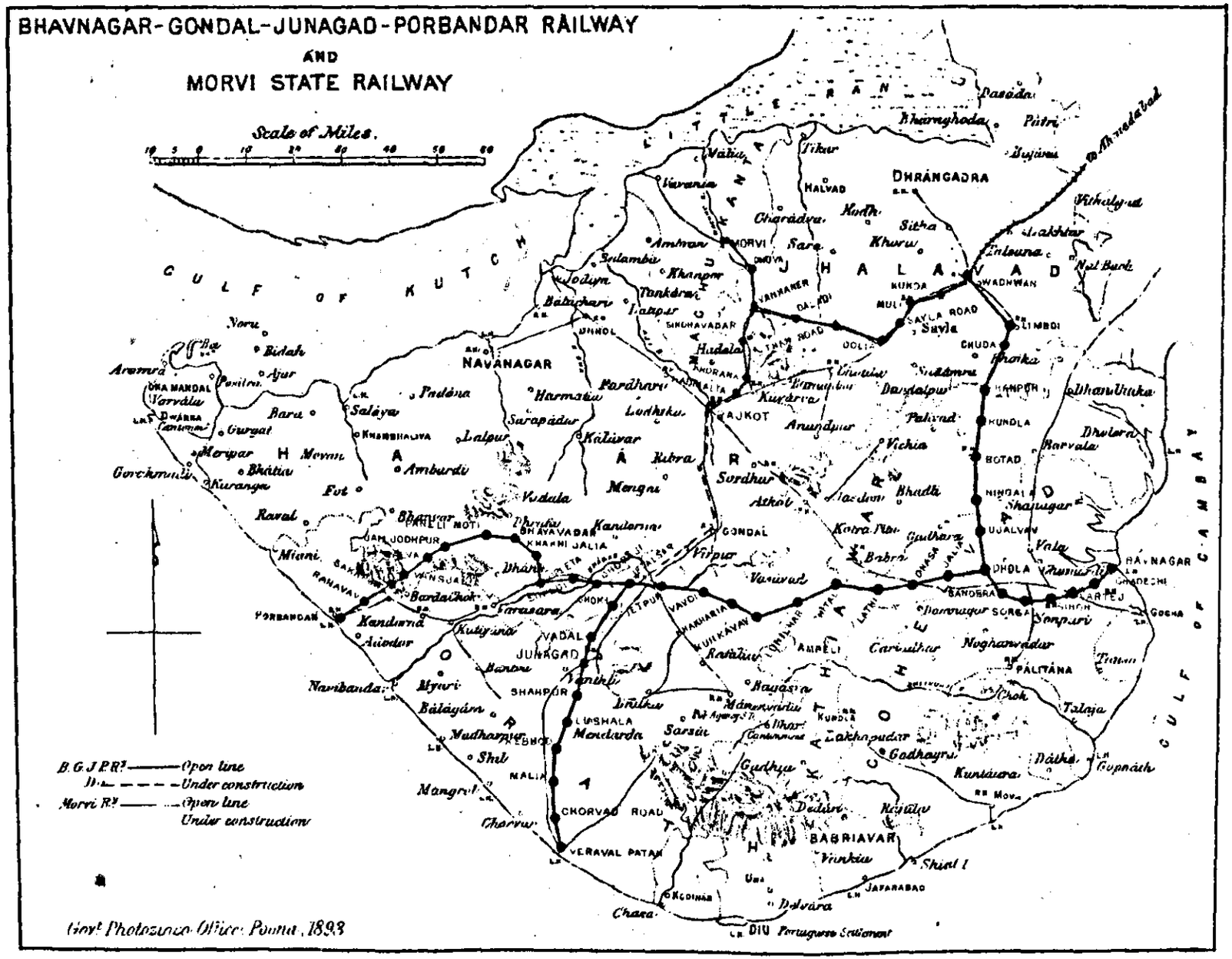
RAILWAYS.

Length of lines.

The following table gives the lengths of the several lines of Railway under the control of the Government of Bombay during the year 1892-93 :—

Gauge.	Railway.	Open for traffic for any part of the year.	Under construction.	Surveyed or under survey.	Classification.
		Miles.	Miles.	Miles.	
5' 6"	G. I. P. Railway	1,288¼	...	...	Guaranteed.
	Dhond and Manmád Railway ...	145¼	...	...	State Imperial worked by Company.
	Khámgaon Railway	7½	...	...	Native State worked by Company.
	Amráoti Railway	5¼	...	...	
	Wardha Coal Railway	45	...	...	State Imperial worked by Company.
	B. B. & C. I. Railway	438½	...	...	Guaranteed.
	Pátri Railway	22¼	...	...	State Imperial worked by Company.
	Gáikwár's Petlad Railway	13½	...	...	Native State worked by Company.
	Godhra-Rutlám Railway	25	90½	...	State Imperial worked by Company.
	Rutlám-Muttra Railway	...	...	350	State Imperial to be worked by Company.
	Rutlam-Ujjain Railway	...	...	50	
	Tápti Valley Railway	...	...	265	Guaranteed.
	Hyderábád-Umarkot Railway ...	59	...	19	State Provincial.
	Nadiád-Kapadvanj Railway ...	...	...	27	Do.
Metre.	Southern Marátha Railway (including Belláry-Kistna Railway) ...	1,043¾	...	...	State Imperial worked by Company.
	Kurnul Road, Kurnul Railway ...	...	...	32	
	Mysore Railway	296	...	...	
	Mysore-Gudalur	15¼	...	54	Native State worked by Company.
	Guntákul-Dharmávaram Railway ...	63	...	...	State Imperial worked by Company.
	Yesvantpur-Dodballápur Railway ...	20	...	...	Native State worked by Company.
	Rájputána-Málwa Railway	1,122¾	...	...	State Imperial worked by Company.
	Rewári-Ferozepore Railway ...	291	...	...	
	Cáwnpore-Achnera Railway ..	260¾	...	...	
	Phálera-Rewari Railway	...	...	131½	
	Nasirábád-Kekri Railway	...	...	35½	
	Chárki Dádri-Narnul Railway ...	...	...	41¼	
	Palanpur-Deesa Railway*	...	17¼	...	
	Ahmedábád-Prantij Railway ...	...	...	47½	Private Company.
	Ahmedábád-Dholera Railway ...	...	..	78	Do.
	Bhávnagar-Gondal-Junágad-Porbandar Railway	333½	...	...	Native State.
	Jetalsar-Rájkot Railway	...	46½	...	Do.
	Palitana Railway	...	...	16½	Do.
	Gáikwár's Mehsana Railway ...	92¾	...	...	Native State worked by Company.
	Pátan-Harij Railway	...	...	20	Do.
	Kolhápur Railway	29	...	...	Do.
2' 6"	Gáikwár's Dabhoi Railway ...	71¾	...	...	Do.
	Bahadarpur-Songir Railway ...	...	...	8½	Do.
	Baroda-Khalkaria Railway	...	...	22	Do.
	Vishvámitri-Jambusar Railway ...	...	...	29	Do.
	Broach-Jambusar Railway	...	...	30	State Provincial.
	Morvi Railway	94	...	...	Native State.
	Grand Total ..	5,783	154¼	1,256¾	

* The Palanpur Deesa has constituted towards the end


BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY
AND
MORVI STATE RAILWAY
Scale of Miles.
10 5 0 10 20 30 40 50 60
CULF OF KUTCH
CULF OF CAMBAY
LITTLE RANN
DHRANGADRA
HALVAD
MORVI
WADHWAN
LIMBDI
CHUDA
KUNDLA
BOTAD
NINDALA
UJALVAV
DHOLA
BHAVNAGAR
SONGADH
SARTEJ
SORGA
PALITANA
NAVANAGAR
RAJKOT
GONDAL
JUNAGAD
VERAVAL PATAN
DIU Portuguese Settlement
B.G.J.P.R.y Open line
Under construction
Morvi R.y Open line
Under construction
Govt Photozinco Office Poona, 1893

General.

Among the principal events which occurred during the year 1892-93 may be noticed the opening for traffic of the Hyderábád-Umarkot Railway as far as Shádipalli and of the first section of the Godhra-Rutlam Railway from Godhra to Limkhera; the taking over by the Southern Marátha Railway Company of the working of the Guntákul-Dharmávaram and Yesvantpur-Dodballápur sections of the Guntákul-Bangalore Railway; the publication of an order relating to the concession for the construction of the proposed 2-feet 6-inch gauge steam tramway from Bársi Road Station to Bársi Town; and the commencement of the work of constructing the Pálanpur-Deesa Railway.

It may be here remarked that the Hyderábád-Umarkot Railway, constructed at a cost of Rs. 17 lákhs, is the first line which has been made from Provincial Funds.

Works in Progress.

The following lines of railway were under construction at the end of the year:—

	Miles.
Godhra-Rutlám Railway from Limkhera to Rutlám	90½
Jetalsar-Rajkot Railway	46¾
Pálanpur-Deesa Railway	17¼
	154¾

G. I. P. Railway system.

The chief works completed and in progress during the year were as follows:—The quadrupling of ¾ths of a mile of line near Byculla was partially completed. The new Byculla Station was finished and the new locomotive yard was practically completed. New permanent stations were in course of erection at Chinchpokli and at Currey Road. The additions and alterations to the station at Thána were completed and the foot over-bridge was erected. The new Protestant Church at Igatpuri was completed. At Bhusával the new goods yard and the interlocking arrangements were finished. At Itársi Junction the extension of the platform and station accommodation was completed. The work of remodelling the station yard at Nágpur was finished. The work of renewing the timbering of the Ehegaon viaduct on the North-East Line was in progress and the Tápti bridge was being painted. At Lonávla a new over-bridge made of old rails was in progress. The additions to the station building at Bársi Road were nearly completed. The work of strengthening the road on the South-East Line between Poona and Ráichur by the addition of an eighth sleeper was in progress during the year. On the double line of road the 69 lbs. steel rails were being replaced by 82 lbs. steel rails, and the iron rails in the single road were being replaced by the 69 lbs. steel rails thus released. These renewals were in progress during the year on the whole line. For the convenience of traffic in the busy season twelve new block stations on the double line and three new crossing stations were put in at the close of the year at places where they were most needed. On the Wardha Coal Railway the work of renewing the sleepers was continued during the year.

B. B. & C. I. Railway system.

On this railway the improvement of the water-supply arrangements at Virár and sixteen other stations was nearly completed, Sánand Station being the only exception. The work of raising the rail level on the 60-feet Warren girder bridges was completed during the year except at the Tápti, Ránip and Sábarmati bridges. A new permanent station building was erected at Málád during the year. At Miyágam a goods platform and extension of the siding were completed. A waiting shed was constructed at Barejadi on the down passenger platform. At the Parel Workshops a new saw shop engine was erected and enclosed, and important additions and alterations to the machine shop were carried out. In April 1892 Pintsch's system of lighting carriages by compressed oil gas was introduced as an experiment, the expenses being borne by the proprietors of the patent. One local train and one bogie carriage of the mail train were supplied with the reservoirs and necessary fittings;—the gas works being erected at Parel.

Rájputána-Málwa Railway system.

The principal works in progress during the year were a 40-feet girder bridge near Cawnpore; one hundred quarters for the locomotive staff, local goods yard, and office and stores for the Locomotive Foreman, at Bándikui; the re-arrangement of the Delhi Station yard and the new goods yard at the Láhore Gate at Delhi; additional broad gauge sidings at Agra Cantonment station and new sidings for the Salt Department on the Sambhár branch.

Godhra Rutlam Railway.

It was stated in the last report that the first section out of Godhra, which was being constructed under contract by Messrs. Kirby & Company, would be finished by the end of June 1892. There was, however, very considerable delay, and the line from Godhra to Limkhera (25 miles) was only opened for public traffic on 16th January 1893. On the remainder of the line work was in progress, the earth-work on the Rutlám division and minor bridging on both the Dohad and the Rutlám divisions being practically finished. At the Panchpiplia tunnel, about 500 feet of the heading were through, and the breaking up to floor level was well in hand. A heavy storm in December 1892, as also very unusual and unexpected floods in the river during January 1893, owing to rain somewhere near its source, obstructed work on the Mahi bridge by filling in the foundations and washing away the temporary bridges and the tram line across the river, but otherwise work was proceeding satisfactorily. At the end of the year the masonry work at the 60-feet girder bridges on the Dohad division was well forward.

Southern Marátha Railway system.

The working of the Guntákul-Dharmávaram section of the Guntákul-Hindupur line, which was opened for public traffic on 10th June 1892, was taken over by the Southern Marátha Railway Company on 1st January 1893. The Yesvantpur-Dodballápur section of the Bangalore-Hindupur line was opened on the 15th December 1892, and its working undertaken by the Southern Marátha Railway Company from the same date. The new house for the auditor at Dhárwár was completed during the year. Several minor improvements such as quarters for the staff, wells, &c., were carried out on the main line during the year. The coping and pitching of the bridges on the Guntakul-Dharmávaram section was in hand.

His Highness the Gáekwar's Railways.

Various improvements were made during the year to the station at Pátan. The construction of police quarters along the line was proceeded with. The work of demarcating the land in the possession of the railway was also taken in hand.

B.-G.-J.-P. Railway.

Sleeper renewals were carried out at a very rapid rate along the Wadhwán-Bhávnagar section, the work being nearly finished at the end of the year. Renewals were also effected on the other parts of the line. The re-building of the Kareda bridge, which had been damaged by the monsoon of 1891, was completed during the year. A new bridge of four spans was put in on the Veraval section; also one of a single span on the Porbandar section. The work of replacing the murum ballast on some parts of the line by stone ballast was in progress during the year.

Jetalsar-Rájkot Railway.

On the Jetalsar-Rájkot extension construction work was in progress throughout the year. In the early part of 1893 work was somewhat retarded by delay in providing telegraphic communication. Permission was given during the year to carry the line over the road bridge across the Bhádar river. About a mile of the Rájkot end of the line was re-aligned, and sanction was given to extend the railway into Rájkot town. At the end of the year the whole line was practically ready for opening.

Morvi Railway.

During the year 1892-93 no new works of importance were undertaken. Some 150,000 cubic feet of ballast was spread on the line, and wooden sleepers were substituted for steel ones in salt land at places. A large portion of the line was re-laid with 29 lbs. rails but it was found that the old 19 lbs. rails showed little signs as yet of wear and tear. A new goods station was built at Wadhwán.

Lines under Survey or Projected.

Projected Railways. Nasirábad-Kekri.

The survey of the Nasirábád-Kekri project, which was entrusted to the B. B. & C. I. Railway Company, was completed during the year. Estimates were prepared for 35·43 miles on the metre gauge, working up to Rs 9,15,097, or Rs. 25,828 per mile, if new rails are used and to Rs. 8,11,939, or Rs, 22,916 per mile if second-hand rails are used.

Godhra-Rutlám.

Reference was made in last year's report to certain proposals of the B. B. & C. I. Railway Company for continuing the Godhra-Rutlám Railway on the same gauge (5′ 6″) to Delhi. The question received further consideration during the year 1892-93. The Government of India decided to allow the B. B. & C. I. Railway Company to make a reconnaissance of the country from Rutlám northwards *viâ* Jhalrapatan, Kerowli, and Bhurtpore to Mathra. In connection with this work the same Company was also asked to make the survey of a proposed line from Rutlám to Ujjain, about 50 miles. The necessary sanction having been received, the surveys were commenced in the latter part of the year.

Extensions of H. H. the Gaekwar Railways.

During the year the B. B. & C. I. Railway Company also undertook, on behalf of the Baroda Darbar, to carry out surveys of a proposed extension of His Highness the Gaekwar's Dabhoi Railway (2 feet 6 inch gauge) from Bahadarpur to the State quarries near Songir, a distance of about 8½ miles, and of the proposed extension of the Patan branch of the Gaekwar's Mehsana Railway (metre gauge) to Harij, about 20 miles.

Ahmedábád-Parántij.

The Ahmedábád-Parántij project, as finally decided upon, is for a standard gauge line from Ahmedábád *viâ* Parántij to Ahmednagar, about 47½ miles. The result of the negotiations carried on during the year between Government and the Gujarát Feeder Railway Company (the name by which the promoting Syndicate is now known) was that the terms for the construction of the line and for its working by the B. B. & C. I. Railway Company were agreed upon. Further action in the matter is, however, in abeyance, pending the raising of the necessary capital by the promoters.

Tápti Valley Railway.

The portion of the survey of the Tápti Valley Railway project entrusted to the B. B. & C. I. Railway Company between Surat and Amalner *viâ* Nandurbár was completed during the year. This portion has a length of 161 miles, and the estimates for its construction work up to Rs. 1,26,96,714, or Rs. 78,862 per mile. It was found that if the line were to take off at a point 2½ miles south of Surat Station some heavy construction works would be avoided, and that the estimate could in that case be reduced to Rs. 1,25,52,096, or Rs. 78,700 per mile. During the year the G. I. P. Railway Company commenced survey operations on the portion of this project entrusted to that Company, namely, the length from Amalner to Jalgaon with a branch southwards to Dhulia and Manmad. The survey work was still in progress at the end of the year.

Mysore Railway extension.

The survey of the proposed extension of the Mysore Railway from Nanjangud to Gudalur at the foot of the Nilghiri Hills (about 54 miles, metre gauge) was concluded. The results were submitted to Government, and were still under consideration at the end of the year.

The survey of the Kurnul project was commenced by the officers of the Southern Marátha Railway Company in February 1892, and was concluded before the end of the year. Kurnul project.

A syndicate was formed in London for the construction of a railway from Deesa to Umarkot, and permission granted to commence a survey. Deesa-Umarkot.

Miscellaneous.

The following statement gives particulars of the consumption and cost of fuel during the year 1892: — Consumption and cost of fuel.

Description.	Percentage of each kind on total consumption.	Total consumption.	Cost per train mile.	Description.	Percentage of each kind on total consumption.	Total consumption.	Cost per train mile.
	Per cent.	Tons.	Annas.		Per cent.	Tons.	Annas.
G. I. P. Railway—				R. M. Railway—			
English coal	35·54	82,402·25	3·86	English coal	42·32	39,603·17	4·07
Singareni „	20·22	46,867·00		Bengal „	57·08	53,423·62	
Mohpani „	6·18	14,336·00		Wood (in terms of coal) ...	0·60	554·87	
Warora „	27·39	63,503·25		Total ...	100·00	93,581·66	
Umaria „	8·73	20,235·50		S. M. Railway—			
Bengal (Damuda) coal ...	0·88	2,035·25		English coal	1·28	993·25	3·19
„ (Deshergar) coal ...	0·74	1,719·50		Singareni coal	18·09	14,041·52	
Wood (2,234 tons 17 cwts.) in terms of coal	0·32	745·00		Wood	80·63	62,588·87	
Total ...	100·00	231,843·75		Total (in terms of Singareni coal; 3 of wood = 1 of English = 1·5 of Singareni).	100·00	46,825·82	
B. B. & C. I. Railway—							
English coal	99·20	44,791·59	3·87	B.-G.-J.-P. Railway—			
Wood (in terms of coal) ...	0·80	361·52		English coal	100·00	4,983·21	3·38
Total ...	100·00	45,153·11		Morvi Railway—			
				English coal	100·00	1,320·00	3·25

During the year 1892, 169 persons including 13 passengers, 76 railway servants, 80 trespassers and others were killed, while 321 persons including 48 passengers, 240 railway servants and 33 trespassers and others were injured, on the various lines open for traffic. The corresponding numbers for the previous year were 165 and 422 respectively. The total number of accidents to trains, including collisions with cattle, was 1,319, as compared with 1,211 in 1891; in these accidents 11 persons were killed and 39 persons injured as compared with 34 persons killed and 143 injured in the previous year. The most serious accident was a collision on the Rájputána section between Ajmere and Madar of a passenger mail train with a goods train, in which 5 railway servants were killed, and four others injured. Accidents.

Owing to the abnormally heavy rainfall during the monsoon of 1892, considerable damage was done on all lines except the G. I. P. and Bhávnagar-Gondal Railways by floods, which greatly disorganized the traffic. Floods.

Capital.

There was no change during the year in the Company's capital, which stood as under :— G. I. P. Railways.

						£
5 per cent. share capital	...	...	...	...	...	20,000,000
4 „ debenture stock	...	...	...	...	...	2,701,450
3½ „ debentures	...	...	...	...	...	845,200
3¼ „ do.	...	...	...	...	...	1,866,100
				Total	...	25,412,750

			£	£	£
Add—Capital not bearing interest :—					
Premia on share, Capitals and Loans	...	...		229,870	
Transferred from Casualty Fund	...	...		74,187	
			£	304,057	
Less—Discount on loans	...	...	13,983		
On debenture stock	...	...	225,891		
				239,874	
					64,183
Total Capital paid into the treasury				...	25,476,933

There were no overdrawals of capital by the Company during the year, which closed with a balance of capital in the Company's favour of £65,351. The guaranteed interest paid on capital for the year was Rs. 1,30,50,425 in England, and Rs. 21,810 in India, making a total of Rs. 1,30,72,235, equivalent to an average rate of 4·72 per cent. on £ 25,412,750 = Rs. 27,72,30,000, the total capital bearing interest.

The expenditure for the year 1892 was :— Dhond and Manmád and Wardha Coal State Railways.

				Rs.
Dhond and Manmad State Railway	...	...	...	28,989
Wardha Coal State Railway	...	...	...	6,493

The total expenditure from commencement of operations to end of 1892 was as under :—

		Dhond and Manmad. Rs.	Wardha Coal. Rs.
Expenditure in England	...	... 43,57,443	9,47,839
Do. in India	...	... 67,15,585	40,39,850
Total		... 1,10,73,028	49,87,689

The Berár Railways.

On the Khámgaon Railway the capital transactions of the year represented a refund of expenditure on account of sale of stores to G. I. P. Railway, amounting to Rs. 1,276. In 1892 there was an expenditure of Rs. 765 on the Amráoti Railway on station and buildings. The total capital cost of these lines from commencement of operations to end of 1892 was as under:—

	Rs.
Khámgaon State Railway	4,89,132
Amráoti State Railway	4,50,160

B. B. & C. I. Railway.

During the year 1892 there was no additional capital either authorized or raised. The capital account on 31st December 1892 was as follows:—

	£	£	Rs.
Capital authorized—			
Share capital	6,250,000		
Debenture bonds	3,663,500		
		9,913,500 =	10,81,47,272
Capital subscribed—			
Share capital	6,250,000		
Debenture bond converted into stock ...	1,300,300		
Do. bonds at 3½ per cent.	1,238,500		
Capital not bearing interest	18,419		
		8,807,219 =	9,60,78,748
Capital Expenditure—			
On Construction account		8,522,211 =	9,29,69,575
„ Stores in suspense		255,456 =	27,86,786
„ Advances in suspense		—9,386 =	—1,02,394
		8,768,280	9,56,53,967
Balance available of—			
Capital authorized		1,145,290 =	1,24,93,305
Capital subscribed		38,939 =	4,24,781

The expenditure on construction account was incurred on—

	Rs.	Cost per open mile.
Way and works	7,72,30,431 =	1,67,528
Rolling stock	1,57,39,144 =	34,141
Miles open, including Pátri Branch		461 miles.

The total capital bearing interest to the end of 1892 was Rs. 9,58,77,818 and the guaranteed interest paid to the Company during 1892 was Rs. 45,57,450, of which Rs. 2,851 were paid in India. The net earnings of the year amounted to Rs. 82,13,090.

Rájputána-Málwa Railway.

The total capital outlay on the whole system, including the Godhra-Rutlam Railway, during and to the end of 1892, was Rs. 13,87,15,689, including Rs. 17,86,415 on indirect outlay. The capital expenditure during 1892, including suspense, amounted to Rs. 52,08,834.

Gáekwár's Railways.

The expenditure for the year 1892 was as under:—

	Rs.
Dabhoi Railway	53,246
Petlád do.	9,963
Mehsána do.	67,560

The total capital expenditure, including suspense, from commencement of operations to end of 1892, was as follows:—

	Rs.
Dabhoi Railway	18,47,403
Petlád do.	7,11,081
Mehsána do.	29,71,610

Southern Marátha Railway system.

The capital of the Company was increased during the year by £75,000 advanced by the Secretary of State and, on the other hand, was reduced by £206 representing transfer fees written back from the account "Capital not bearing interest" to credit of final heads of expenditure. On the 1st April 1892 £600,000 of the Company's 3½ per cent. debentures fell due, but were re-issued at 3¼ per cent. for 7 years. The capital of the Company stood as follows on the 31st December 1892:—

Stock and Share Capital	£3,500,000	
Debentures	£943,100	
	£4,443,100 =	Rs. 5,43,17,200
Capital not bearing interest	£30,957	„ 4,33,392
Advances by the Secretary of State	£2,054,900	„ 2,46,55,800
Total ...	£6,528,957 =	Rs. 7,94,00,392
Capital expenditure during the year		„ 7,79,91,999
Balance available ...		„ 14,17,393

The total outlay during the year on final heads amounted to Rs. 5,84,634, of which a sum of Rs. 5,47,653 was incurred on construction works. The amount of guaranteed interest paid to the share-holders during 1892 amounted to Rs. 31,36,949, which exceeded the net earnings of the period by Rs. 17,48,950.

Mysore State Railway.

The capital raised and expended stood as follows on 31st December 1892 :—

Debentures	£1,200,000 = Rs.	1,60,61,569
Capital not bearing interest	£24,000 „	3,21,232
Total ...	£1,224,000 = Rs.	1,63,82,801
Capital expenditure during the year	„	1,47,78,616
Balance available ...	„	16,04,185

The outlay during the year on final heads of account amounted to Rs. 1,47,978, thus made up :—

	Rs.
Works	1,42,155
General charges	4,106
Rolling stock	1,717
	1,47,978

The guaranteed interest paid to the shareholders during the calendar year amounted to Rs. 7,29,624, being in excess of the net revenue for that period by Rs. 2,81,718.

Kolhápur State Railway.

The total outlay to end of December 1892 stood at Rs. 23,81,946, deducting from which Rs. 63,470 as outlay under Suspense, there remained a balance of Rs. 23,18,476 as outlay against estimates aggregating Rs. 23,34,337. The construction of the railway was carried out by the Kolhápur Darbár.

Mysore-Nanjangud Extension.

The figures were as follows :—

	Rs.
Capital outlay to end of December 1892	5,92,414
Sanctioned estimate	7,03,273

B.-G.-J.-P. Railways.

Including the amount held in suspense, *viz.* Rs. 4,09,287, the total capital outlay to end of the year 1892 was Rs. 1,72,52,030, against Rs. 1,71,24,771 on the 31st December 1891. The distribution of the latter amount over the four sections of the railway was as under :—

	Rs.
Bhávnagar State share	70,36,272
Gondal „	47,54,330
Junágad „	36,25,019
Porbandar „	18,36,409
Total ...	1,72,52,030

The net expenditure of the year amounted to Rs. 1,27,259.

Morvi Railway.

The capital expenditure of the year amounted to Rs. 53,673. A sum of Rs. 24,297 represented the suspense account at the end of the year. The total capital outlay on final heads of account up to 31st December 1892 was Rs. 20,80,223.

Revenue Tansactions: Traffic and Working.

G. I. P. Railway.

Compared with 1891 the earnings for 1892 showed a decrease of Rs. 45,89,706, of which Rs. 1,29,091 were under coaching and Rs. 44,17,852 under goods. The heavy falling off in goods traffic receipts occurred chiefly in wheat, jowári and bájri, oil-seeds (linseed and til), oils (mineral and vegetable), cotton raw, provisions, sugar and jagri, and coal carried for revenue purposes—that on wheat being due to the cessation of the abnormal demand for export to Europe referred to in last year's report, and on jowari and bajri to the cessation of the scarcity in Southern India. The working expenses showed a net decrease of Rs. 15,28,584, and the percentage of working expenses on gross earnings was 49·93 in 1892 against 48·25 in 1891, an increase of 1·68. The divisible surplus profits of the first half of 1892, at the date of submission of accounts, amounted to Rs. 76,17,155 as against Rs. 1,03,52,684 in the first half of 1891, a decrease of Rs. 27,35,529. There were no surplus profits in the second half of 1892, the net earnings amounting to Rs. 60,32,066, excluding rent of leased lines, having fallen short of the guaranteed interest by Rs. 5,04,151. After making the usual deductions from the net earnings of the year, the net result showed a gain to the State of Rs. 33,24,258, as against Rs. 49,67,044 in 1891, a decrease of Rs. 16,42,786. The chief features of the year's transactions are compared with those of 1891 in thefollowing table :—

	1892.	1891.	Difference.
	Rs.	Rs.	Rs.
Gross earnings...	4,06,65,627	4,52,55,333	—45,89,706
Working expenses (including rent of leased line) ...	2,03,06,001	2,18,34,585	—15,28,584
Net earnings	2,03,59,626	2,34,20,748	—30,61,122
Percentage of expenses on earnings	49·93	48·25	+1·68
Percentage of net earnings on total capital bearing interest .	7·34	8·45	—1·11

Dhond and Manmad Railway.

The results of the year's transactions as compared with the previous year are shown in the following table :—

Particulars.	Dhond and Manmád Railway.			Wardha-Coal Railway.		
	1891.	1892.	Difference.	1891.	1892.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	11,90,340	12,18,412	28,072	2,58 971	2,32,986	—25,985
Working expenses	8,81,757	8,90,077	8,320	1,98,918	1,98,890	—28
Net earnings	3,08,583	3,28,335	19,752	60,053	34,096	—25,957
Percentage of expenses on earnings	74·08	74·05	—0·03	76·81	85·37	8·56
Percentage of net earnings on total capital outlay including suspense	2·79	2·97	+0·18	1·21	0·68	—0·53

The slight increase on the Dhond-Manmád Railway was due to a larger coaching traffic, while the decrease on the Wardha Coal Railway was due mainly to a falling off in the amount general merchandize and coal carried.

The Berars Railways.

The results of the year's transactions are compared with those of 1891 in the following table :—

Particulars.	Khámgaon.			Amráoti.		
	1891.	1892.	Difference.	1891.	1892.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	66,675	65,548	—1,127	1,12,909	1,05,762	—7,147
Working expenses	34,055	34,640	+585	59,517	57,124	—2,393
Net earnings	32,620	30,908	—1,712	53,392	48,638	—4,754
Percentage of expenses on earnings	51·08	52·85	+1·77	52·71	54·01	+1·30
Percentage of net earnings on total capital outlay, including suspense	6·65	6·32	—0·33	11·88	10·80	—1·08

The decrease in the case of both lines was mainly due to a falling off in the amount of general merchandize carried.

B. B. & C. I. Railway.

The results of the year's transactions as compared with those of 1891 are shown in the subjoined table :—

	1891.	1892.	Difference.
	Rs.	Rs.	Rs.
Gross earnings...	1,41,37,769	1,42,44,478	+1,06,709
Working expenses	58,29,567	60,31,388	+2,01,821
Net earnings	83,08,202	82,13,090	—95,112
Percentage of expenses on earnings	41·23	42·35	+1·12
Percentage of net earnings on capital bearing interest ...	8·67	8·57	—0·10

There was an increase under each head of earnings except in goods traffic. The decrease under the latter head was mainly due to the diminution in the export of wheat to Europe, caused by the cessation of the demand. The increase in working expenses was mainly caused by a larger expenditure on carriage and wagon expenses, due to heavier repairs to the coaching and goods vehicles, and to the low rate of exchange, on general charges due to expenses incurred in connection with the issuing of the new debentures, and on special and miscellaneous expenditure, due to heavier payments on account of compensation for goods damaged and personal injuries sustained.

Rájputána-Málwa Railway.

The working results of the year's transactions, as compared with those of 1891, are shown in the following table :—

	1891.	1892.	Difference.
	Rs.	Rs.	Rs.
Gross earnings...	2,17,89,570	2,24,00,454	6,10,884
Working expenses	94,72,505	91,85,679	—2,86,826
Net earnings	1,23,17,065	1,32,14,775	8,97,710
Percentage of working expenses on earnings	43·47	41·01	—2·46
Percentage of net earnings on total capital outlay, excluding indirect charges	9·35	9·65	+0·30

There was a large decrease in working expenses due to less expenditure on the wheels and axles-changing operation and to a smaller number of repairs and renewals. The increase in earnings was mainly due to the large amount of grain and oil-seeds carried.

His Highness the Gackwar's Railways

The gross earnings of the Dabhoi line totalled Rs. 2,38,608 as against Rs. 2,01,165 in 1891, an increase of Rs. 37,443, due to a larger lower class passenger traffic and to a larger amount of merchandize carried. The working expenses were practically the same as last year. The percentage return on the capital expenditure was 5·77 as against 3·79 in 1891.

The Petlád lines earnings were Rs. 61,242 as against Rs. 59,113 in the previous year, an increase of Rs. 2,129 due to a larger third class passenger traffic. The working expenses however increased by Rs. 3,718, so that the net profits were Rs. 1,589 less than in 1891. The percentage return on the capital expenditure was 4·89 as against 5·18 in the previous year.

The earnings on the Mehsána line amounted to Rs. 2,58,963, an increase of Rs. 64,716 over the total for the previous year, due to the entire line having been open for traffic during the whole of 1892. The working expenses increased by Rs. 17,512 from the same cause. The net profits were Rs. 47,204 larger than in 1891, giving a percentage return on the capital expended of 5·15 as against 3·64 in 1891.

Southern Marátha Railway.

The gross earnings fell away from Rs. 61,43,473 in 1891 to Rs. 59,41,076 in the year under review; and as the gross expenses (given approximately for 1892) rose from Rs. 40,48,970 to Rs. 40,84,055, the net earnings showed a decrease of Rs. 2,37,482. There was a slight increase in the number of passengers carried and the earnings due to the reduction of 3rd class fares on parts of the Company's system; but there was a large decrease under the head of goods due to the deficient rainfall in 1891-92 and the consequent failure of crops. The increase in working expenses was mainly due to heavy expenditure incurred in repairing the damage done by floods, and to the charges connected with the renewal of the debentures in England.

B.-G.-J.-P. Railway.

The gross traffic earnings for the year amounted to Rs. 15,78,179 and the expenditure to Rs. 11,40,302, leaving net earnings of Rs. 4,37,877, this sum being Rs. 37,909 less than the net earnings in 1891. Coaching traffic decreased by Rs. 3,377 and goods traffic increased by Rs. 97,817. Working expenses were Rs. 1,38,825 more than in 1891, owing chiefly to heavy renewals of sleepers along the line. The percentage return was 2·54 on the capital expenditure as against 2·78 in 1891.

Morvi Railway.

The gross earnings of the year were Rs. 3,09,171 as against Rs. 3,09,418 of the previous year. The working expenses showed a marked decrease of Rs. 22,000, being Rs. 1,78,801 against Rs. 2,00,801 of the previous year; while the net income showed an improvement on the previous year of Rs. 21,753, being Rs. 1,30,370 against Rs. 1,08,617 of last year. The percentage return on the capital expended was 6·27 as against 5·35 in the previous year.

Telegraphs.

Telegraph, Bombay.

The following tables show the length of telegraph wires and lines and the number of offices in the Presidency in 1892-93:—

Lines.

Mileage of Lines.				Mileage of Wires.			
At end of previous year.	Added during year.	Deducted during year.	Remaining at end of year.	At end of previous year.	Added during year.	Deducted during year.	Remaining at end of year.
5,359	*449	.....	5,808	20,563	*1,688	.....	22,251

* Including 147 miles of line and 587 miles of wire between Pálanpur and Sábarmati, with branches transferred from Rájputána account.

Offices.

	Number of Telegraph Offices open at end of previous year.	Add number opened during year.	Deduct number closed during year.	Number open at end of year.	Number of telegrams despatched during year from Government Offices.	Increase over previous year.	Indian share of collections.
							Rs. a. p.
Government Offices	113	13	1	125	935,285	79,839	16,05,453 4 5
Railway and Canal Offices ...	89	*39	...	128	...	...	.....
Offices not open for paid telegrams	75	*5	7	73	...	...	.....
Total ...	277	57	8	326	...	...	....

* Including 10 offices on Gáekwár's Virangám-Mehsána-Pátan Railway, not previously reported, and 14 Rájputána-Málwa Railway offices between Ahmedabad and Pálanpur, previously included in Rajputána account.

The following statement shows the names of offices opened and closed during the year :—

Opened.	Closed.
Government.	*Government.*
Bádámi, Bágalkot, Byadgi, Harihar, Háveri, Kaládgi, Kurla, Lakádia, Lárkhána, Pandharpur, Pardhari, Ránebennur, and Sátára Road.	Adesir.
Railway.	*Railway.*
Bhávnagar Bandar ... ... ; Khakhi Jalia ... ... ; Lákhipur ... ... ; Supedi ... ... ; Verával Bandar ... ... ; Wansjalia ... ... — Bhávnagar-Gondal-Junágad-Porbandar Railway.	None.
Badra ... ... ; Kotri ... ... ; Unarpur... ... ... ; Gidee Bandar ... ... ; Hyderábád ... ... — North-Western Railway.	
Mirpur Khás ... ... ; Shadipalli ... ... ; Tando Alahyar... ... . ; Tando Jám ... ... — Hyderabad-Umarkot Railway.	

Persian Gulf Section.

The traffic transmitted during the above period showed a decided falling off monthly as compared with the previous year, the total decrease amounting to 9,370 messages and 148,215 words. The receipts, however, converted into rupees amounted to Rs. 13,38,629 as compared with Rs. 13,05,027 in 1891-92, showing a gain of Rs. 33,602. This was due to the alterations in the rate of exchange with regard to the comparative value of the franc and rupee. The details were :—

	Rs.	a.	p.
From India and eastward of India	7,18,827	5	11
„ westward of Bushire	5,68,274	6	6
„ „ Fao	37,041	12	10
„ Persian Gulf stations	14,485	3	0
Total ...	13,38,628	12	3

The figures for the past six years are below given for the purposes of comparison :—

Year.	Number of Messages.	Number of Words.	Net receipts. Rs. a. p.	Remarks.
1887-88	82,540	1,266,849	8,87,956 10 0	
1888-89	114,991	1,642,079	11,87,699 0 0	
1889-90	106,702	1,558,695	11,24,014 6 9	
1890-91	121,629	1,662,433¼	11,13,671 3 9	
1891-92	125,643	1,798,261¼	13,05,027 2 10	
1892-93	116,273	1,650,046¾	13,38,628 12 3	

The 116,273 messages transmitted during the year were classified as follows :—

Class.	Denominations.	Number of Messages.	Number of Words.	Remarks.
P.	Private and Commercial	111,930	1,449,051¾	
S.	State	2,886	91,235	
Z.	Press News	1,091	44,620	
Z.	„ "Special Times"	336	65,140	
	Total ...	116,273	1,650,046¾	

The percentage of traffic over the Teherán and Turkish routes was 92·96 and 7·04 respectively, as against 92·31 and 7·63 in the preceding year.

Traffic office at Karáchi.

The amount credited to the Government of India, as per monthly balances of traffic interchanged with India and the gross collections made at the stations of this sections was Rs. 16,19,030-15-0, of which Rs. 15,87,731-13-3 came from international and Rs. 31,299-1-9 from local traffic. The gross value of traffic audited amounted to Rs. 54,75,922-8-3, distributed as follows :—

	Rs.	a.	p.
With India	27,64,621	10	8
„ Persia	25,73,107	2	3
„ Turkey	94,364	13	8
„ Persian Gulf section	43,828	13	8
Total ...	54,75,922	8	3

A further improvement took place in the speed of transmission between Karáchi and Teherán, the average rate for westward messages being 5 minutes and 51 seconds against 8 minutes and 42 seconds in 1891-92, and for eastward messages 4 minutes and 26 seconds against 6 minutes and 25 seconds in the previous year. A similar improvement took place in the rates of transmission between the United Kingdom and Karáchi *via* Teherán, the mean speed being 45 minutes as against 59 in 1891-92. The Turkish route, on the other hand, showed a further decrease of speed, the average time taken being 27 hours 47 minutes as against 16 hours 12 minutes in 1891-92.

Post Office.

Imperial Post, Bombay Circle.

The following were among the important events of the year :—

General.

(I) The value payable system and the inland insurance system were extended to Aden and a limit of Rs. 250 was fixed for the value of insured articles to be delivered by postmen. (II) It was decided that postage stamps on service parcels should be affixed to parcel receipts instead of to parcels and that service post cards should be franked on the front instead of on the reverse. (III) The extension to the Bombay Presidency of the system of receiving salt revenue at Post Offices was sanctioned, but its actual introduction was under the consideration of the Commissioner of Customs. (IV) A special limit of Rs. 500 was fixed for security deposit Savings Bank accounts, which were removed from the category of public accounts. (V) The Universal Postal Convention of Vienna came into force on the 1st July 1892. It introduced several important changes affecting the public. Inland post cards can now be sent to foreign countries with or without adhesive stamps to make up the deficiency. The limit of size for samples has been raised from 8 × 4 × 2 to 12 × 8 × 4 inches. Under a provision in the convention the limit of weight for samples has been raised from 8 to 12 ounces by mutual agreement between India on the one hand, and Austro-Hungary, Belgium, Egypt, France, Italy, Portugal and Roumania on the other. The minimum charge on business papers and samples has ceased to be compulsory, but they are still required to be at least partly prepaid. The charge of double the deficiency on insufficiently prepaid articles has been limited to double the charge on wholly unpaid articles from Foreign Countries. (VI) The Indian equivalents of the fundamental rates of the union were revised—25 centimes being now regarded as equivalent of 2½ annas and 10 centimes of 1 anna instead of 2 annas and ¾ of an anna respectively. (VII) The postage rate on letters to Persia was raised from 2 to 2½ annas per ½ oz. and the varying rates to non-union foreign countries were done away with, so that an uniform rate of 2½ annas the half ounce is now charged to all foreign countries, whether union or non-union, except to Ceylon by Indian service and Portuguese possessions in India to which inland rates apply. The minimum charge on business papers was raised from 2 to 2½ annas.

Postal facilities.

The following table gives the number of post offices, letter-boxes and postmen existing at the end of the year under report as compared with the previous year :—

Year.	Number of Post Offices.	Number of Letter-boxes.	Number of Postmen.	Number of Village Postmen.	Total.
1891-92...	1,376	2,254	1,279	677	5,586
1892-93...	1,389	2,459	1,319	712	5,879
Increase ...	13	205	40	35	293

Combined Post and Telegraph Offices.

Thirteen additional combined Post and Telegraph offices were opened and the total number of such combined offices at the end of the year was 87.

Postal lines.

The following statement shows the extension of inland communications during the year :—

Year.	Tonga-Horse and Camel Mileage.	Runners' Mileage.	Railway Mileage.	Steamer Mileage.	Total Mileage.
1891-92...	550¼	8,765½	...	3,233	12,548¾
1892-93...	533¼	8,843¼	420¼	3,233	13,029¾
Increase ...	...	77¾	420¼	...	481
Decrease ...	17	...	...	...	...

Special arrangement for Karáchi mails.

An arrangement was made with the British India Steam Navigation Company to send the Europe mails to Karáchi by their extra steamer on Saturday when the mails arrived on that day. The mails thus reach Karáchi 24 hours earlier, those for the Persian Gulf being still sent by the regular mail steamer leaving on Sunday.

The estimated number of articles issued for delivery during the year was 66,008,176 against 64,938,796, an increase of 1,069,380 or 1·64 per cent.

Use of service stamps by Native States.

The sale of service stamps to Native States amounted to Rs. 69,818 against Rs. 61,534 in the previous year.

Foreign Parcel Post.

The postage on parcels to Canada was reduced from Rs. 1-4-6 to Rs. 1-2-0 per lb. for the 1st lb. and from Rs. 1-2-0 to annas 15 for each subsequent lb. The statement given below exhibits the results of the working of the foreign parcel post. The decrease in parcel traffic was owing to the falling off of the P. and O. parcel traffic consequent on the reduction of the rates of postage on book packets from the 1st January 1892. The greater portion of the parcels received from the United Kingdom, through the agency of the P. and O. Company, consisted of books for which a charge of 6*d.* per lb. was made, and the reduction of the postage rates led to a diversion of the parcels to the Post Office, they being sent as book packets or printed papers. The number of parcels received through the Company declined from 45,374 to 6,580 and the revenue from Rs. 31,989 to Rs. 15,818, or a decrease of Rs. 16,171. Excluding the arrangement with the P. and O. Company, there was an increase on the whole of 8,559 parcels and an increase of Rs. 6,840 in revenue :—

Exchanges.	Number of parcels exchanged during 1891-92.	Number of parcels exchanged during 1892-93.	Revenue derived in 1891-92.	Revenue derived in 1892-93.
			Rs.	Rs.
With the United Kingdom through the London P. and O. Company	134,702	141,315	1,01,056	1,05,188
Do. P. and O. Company ...	47,075	8,265	41,399	26,220
With the Continent of Europe	8,217	8,190	11,256	11,614
„ Egypt	2,707	3,394	3,953	5,355
„ Aden, Zanzibar, China, Straits and Australia	5,039	6,292	* 4,158	5,106
Total ...	197,740	167,489	1,01,822	1,52,483
Decrease ...	.....	30,251	.....	9,309

* An item of Rs. 122 was omitted to be included in the last report.

Money Orders.

The commission on money orders issued at Busrah and Bagdad was raised from one to two per cent. to avoid accumulation of cash in the treasury and to prevent trade remittance being made by money orders, the rate of commission on bills of exchange having risen above one per cent. The subjoined tables show the number and amount of Inland and foreign money orders issued and paid during the last two years by offices in the Bombay Circle :—

Inland.

Year.	Issues.				Payments.		
	Number.	Value.	Commission.	Average value of an order.	Number.	Value.	Average value of an order.
		Rs.	Rs.	Rs. a. p.		Rs.	Rs. a. p.
1891-92	769,487	1,71,31,801	2,13,632	22 4 2	920,278	2,02,68,459	22 0 4
1892-93	807,063	1,79,92,592	2,25,015	22 4 8	989,091	2,12,70,539	21 8 1
Increase ...	37,576	8,60,791	11,383	0 0 6	68,813	10,02,080	.....
Decrease ...	...	...	...	.....	...	.....	0 8 3

Foreign.

Year.	Issues.				Payments.		
	Number.	Value.	Commission.	Average value of an order.	Number.	Value.	Average value of an order.
		Rs.	Rs.	Rs. a. p.		Rs.	Rs. a. p.
1891-92	14,077	5,86,255	6,024	41 10 4	13,394	7,79,257	58 2 10
1892-93	14,021	6,32,908	6,024	45 2 3	14,049	6,36,941	45 5 1
Increase ...	...	46,653	...	3 7 11	655	.....	.....
Decrease ...	56	...	...	.....	...	1,42,316	12 13 6

The fluctuations in the issues and payments of foreign money orders were probably due to fluctuations in exchange rates. The above tables include telegraphic money orders, of which separate figures are given below :—

Year.	Issues.			Payments.	
	Number of Telegraphic Money Orders issued.	Value.	Commission.	Number of Telegraphic Money Orders paid.	Value.
		Rs.	Rs.		Rs.
1891-92...	4,033	5,37,747	9,490	6,572	7,64,144
1892-93...	4,528	6,00,063	10,652	7,302	9,26,916
Increase ...	495	62,316	1,162	730	1,62,772

Payment was fraudulently obtained in 9 cases of ordinary money orders of the aggregate value of Rs. 227 and in three cases of telegraphic money orders amounting to Rs. 348. No trace could be found of the offenders in any case. Instructions were issued at the end of the year with a view to securing more trustworthy identification of payees by witnesses.

Foreign Money Order exchanges.

The sterling exchange with British North Borneo was converted into a rupee exchange to enable the remitters to receive acknowledgments signed by the payees. The statement which follows gives the foreign money order transactions between India including Aden, Zanzibar, Persian Gulf and Foreign Countries :—

	Advised to Foreign Countries.						Received from Foreign Countries.			
	1891-92.			1892-93.			1891-92.		1892-93.	
	Number.	Value.	Commission.	Number.	Value.	Commission.	Number.	Value.	Number.	Value.
		£.	Rs.		£.	Rs.		£.		£.
Sterling	45,742	157,869	21,434	42,851	141,263	19,738	19,746	125,615	20,345	105,757
Increase ...	...	...	...	...	...	...	...	...	599	...
Decrease ...	...	...	...	2,891	16,606	1,696	...	...	...	19,858
		Rs.	Rs.		Rs.	Rs.		Rs.		Rs.
Rupee Orders ...	8,461	2,91,251	3,226	9,114	3,19,255	3,511	7,313	4,32,372	9,255	5,39,525
Increase ...	...	...	...	653	28,004	285	...	...	1,942	1,07,153

Savings Bank.

The results of the operations of the Savings Bank system were as under :—

Number of Accounts.					Deposits and Withdrawals.					
Opening Balance on the 1st April 1892.	Newly opened during the year 1892-93.	Total.	Closed during the year 1892-93.	Balance on the 31st March 1893.	Opening Balance on the 1st April 1892.	Deposits during 1892-93.	Interest for the year 1892-93.	Total.	Withdrawals during the year 1892-93	Balance on the 31st March 1893.
					Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
* 102,091	29,825	131,916	15,501	116,415	* 2,29,31,039	97,70,806	8,73,372	3,36,75,216	78,24,227	2,48,50,989

* Including transfer accounts not included in the last report.

Government Securities.

The transactions in Government securities carried on through the medium of the Post office by Savings Bank depositors are shown in the following table :—

Year.	Value of Securities purchased.	Value of Securities sold.	Value of Securities deposited in safe custody.	Value of Securities delivered out of custody.	Total Value.
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92...	11,400	2,900	11,300	4,100	29,700
1892-93...	27,000	300	7,700	4,000	39,000
Increase ...	15,600	...	...	...	9,300
Decrease ...	...	2,600	3,600	100	...

The increase in the amount invested was possibly due to the failure of the Oriental Bank and the feeling of insecurity which prevailed at the time.

Insured articles.

The following table exhibits the insurance transactions of the year as compared with the previous year :—

Year.	Number of articles insured.	Value insured.	Fees realised
		Rs.	Rs.
1891-92	58,119	2,49,65,862	64,078
1892-93	50,347	1,79,61,241	46,940
Decrease ...	7,772	70,04,621	17,138

The decrease occurred mainly in the transactions of the Bombay Post office for which no satisfactory explanation can be offered. Compensation for the loss of insured articles was paid in five cases, the total amount paid being Rs. 1,109 against Rs. 2,545 in 1891-92. In two of these cases the loss occurred through the negligence of departmental servants, in one case a parcel was tampered with in transit, and in the last case a bag containing insured parcels was stolen in the Railway mail services.

Value payable system.

The progress of the value payable system is shown below :—

Year.	Number of value-payable articles posted.	Value declared for realisation.	Commission.	Average value of an article.
		Rs.	Rs.	Rs. a. p.
1891-92	268,449	26,76,233	51,382	9 15 6
1892-93	312,457	33,07,718	60,264	10 9 9
Increase ...	44,008	6,31,485	8,882	0 9 11

Complaints.

The number of complaints received during the year was 1,101 or 22 more than the previous year. The number of well grounded complaints was the same as in the year 1891-92, *viz.* 300, while 285 complaints were found to be groundless, in 470 cases no definite conclusion could be arrived at and 46 were still under enquiry at the end of the year, mostly relating to foreign articles. Of the total number of complaints 166 related to registered and insured articles and money orders, and in 62 of these cases the Post office was found to be in fault.

Offences by Postal servants.

Nineteen offences punishable by law were committed by Postal servants against thirty in 1891-92. In five cases legal conviction was obtained, in thirteen cases departmental punishment was inflicted and in one case no punishment had been awarded at the end of the year.

Loss of Government money.

The loss of Government money caused by negligence or fraud on the part of departmental servants or house-breaking, theft and fraud by outsiders amounted to Rs. 793. Out of this Rs. 754 were recovered and Rs. 39 on account of a money order paid to a wrong payee were written off.

Highway robberies.

There were no highway robberies of the mail during the year, but two unsuccessful attempts were made, one on the mail tonga on the Mándvi-Bhuj line and the other on a village postman in the Kaira District. The offenders in the latter case have since been arrested. In both cases it was uncertain whether robbery of the mail was really intended.

Postal Life Insurance.

Twenty life policies and one contract for a deferred monthly allowance were issued during the year including 8 policies in favour of officials of the Telegraph Department. The total number of policy holders at the close of the year was 184.

Use of private presses.

The cost of postal printing done at private presses amounted to Rs. 468.

District Post.

Bombay Circle grant.

The grant from Provincial revenues for the year 1892-93 was the same as for the previous year, *viz.* Rs. 85,812, while the budget provision was Rs. 87,588, which was, on the whole, not exceeded, the figures of estimate and expenditure being as follows:— Estimates Rs. 87,588, Expenditure Rs. 87,225-14-7, Saving Rs. 362-1-5. One of the District Post Inspectors was transferred to the Imperial Establishment, while 3 branch postmasters (extra departmental) and 5 runners were newly employed. The establishment at the end of the year comprised 13 inspectors, 17 clerks, 477 village postmen, 20 postmen, 25 runners and peons and 1 branch postmaster, and allowances were paid to 8 schoolmasters and 2 kárkúns in charge of post offices, besides also to one Superintendent for District Post work. The number of post offices increased from 8 to 11. Letter-boxes decreased from 402 to 392 owing to redistribution. The aggregate number of postmen and village postmen was the same as in the year 1891-92. All the postmen effected daily deliveries and paid money orders. Of the village postmen 421 paid money orders at the houses of payees while the other 56 were not authorized to pay money orders.

The length of District Post lines increased from 105 to 148 owing to the opening of two new offices on the Goa frontier. The estimated amount of correspondence received for delivery and posted for despatch was as follows:—

Year.	Articles posted for despatch.	Articles received for delivery.	Articles returned undelivered.	Percentage of returned articles.
1891-92...	464,550	1,401,916	62,724	4·47
1892-93...	484,308	1,355,328	60,900	4·49
Increase ...	19,752	.....	.....	0·02
Decrease ...	.....	46,588	1,824	.....

The decrease in the number of articles received for delivery is believed to be mainly due to the number for the previous year having been over-estimated. As compared with the year 1890-91 there was an increase in the number of articles received for delivery to the extent of 45,372 articles. The approximate value of correspondence received for delivery was Rs. 55,975-5-0 as against Rs. 57,575-9-0 of 1891-92.

The District Post establishment under the control of the Deputy Postmaster General in Sind consisted of 17 savárs, 14 runners and 1 overseer. The cost of maintenance was Rs. 3,570. Sind.

Irrigation.

The principal work in progress during the year was the Nira Canal. As in the previous year, the work was chiefly confined to the two waste weirs at Bhátghar. The works comprised in the Mhasvad Tank project were practically completed during the year. The project for the Parsul Tank distributaries was sanctioned during the year; but owing to labour difficulties the full allotment was not expended. There was an accident to the Nehr Tank dam, necessitating partial reconstruction, which was begun during the year. The sum of Rs. 26,820 was spent on the repair of tanks in the Dhárwár district. The total area irrigated from all works during the year was 65,487 acres as against 96,025 acres in the previous year; a decrease of 31·80 per cent., which was mainly due to the excessive rainfall of the year. The gross assessed revenue from all sources amounted to Rs. 4,79,042, a decrease of Rs. 97,544 or nearly 17 per cent. on the total for the previous year, due to the large decrease in the area irrigated. During the year under report it was decided to abandon the practice hitherto prevailing of requiring cultivators in Gujarát and the Southern Marátha Country to contribute to the cost of repairing irrigation tanks, as a condition precedent to the execution of such repairs. In future all irrigation tanks, both large and small, are to be treated on the same footing, and funds for their repair and upkeep will be provided from the Public Works grants. Preference, however, will be given in order of execution to works for the repair of which the cultivators are willing to contribute in money and labour or both. General Remarks. Deccan and Gujarát.

The annual rising of the river Indus commenced in July 1892, six weeks later than usual. The river subsequently rose to a good height, which was maintained till September, and of which full advantage was taken. The maximum readings were 16 feet 9 inches at Bukkur on August 18th and 21 feet 4 inches at Kotri on August 27th. When the river reached its highest in August, the bunds, owing to the lowness of the previous year's inundation and to the absence of rain since then, were parched and dry, and consequently gave way in numerous places, the breaches so made causing floods in the adjoining districts. In the Begári District the Kashmor bund commenced to leak and the flow of water through the breach only ceased when the river fell. There were the usual local floods at Rohri, and the Bhávalpur flood also appeared, but too late to do much harm. The chief scene of damage was the Western Nára, which was swept by floods from the river on the east and from the hills on the west. These floods did great damage to the Railway and the Pritchard Canal, breaching the former in several places. In the Fuleli district the river overflowed the high land south of Jamshoro and the floods so caused practically cut off Hyderábád from the river, breaching the Umarkot railway and the aqueduct supplying the town with water. In the Karáchi district the height of the river was unprecedented and caused no less than 23 breaches in the bank. One of the principal operations of the year was the commencement of the improvements to the Unharwah and the construction of a new feeder to the Western Nára and the commencement of the Dhamrao Canal. Work was continued on the Játri Keti clearance in the Eastern Nára, and the construction of an escape sluice from the Nára into the Játri Dhands was commenced. In the Fuleli district one of the regulators mentioned last year was completed and one was in progress. The work of opening out the tails of five of the principal branches of the canal, so as to give five escapes for surplus water into the sea, was commenced, and a bund was made to shut out the spill between Jamshoro and Gidu Bandar. In the Karáchi district work was started on the Báráhgaza Khádi bund. Two important surveys were undertaken during the year, one in connection with the revision of the plans and estimates for the Jamrao Canal proposed by Major Smith, R.E., in 1873, and the other with the view of ascertaining the possibility of turning the Bhávalpur flood into the desert and leading the local Rohri floods, so as to do as little damage as possible. Sind.

Expenditure.

The expenditure of the year, which was Rs. 24,72,515 as against Rs. 23,13,591 last year, was distributed under different heads as under :—

Capital— *Imperial.*		
Major Works—	Rs.	Rs.
Protective Works	(a) 1,08,643	
Productive do.	2,13,783	
		3,18,426
Minor Works and Navigation—		
Works for which Capital and Revenue Accounts are kept		(b) 1,46,789
		4,65,215
Revenue—		
Major Works		
Protective Works	64,645	
Productive Works	3,82,155	
		4,46,800
Minor Works and Navigation—		
Works for which Capital and Revenue Accounts are kept ...	3,31,500	
Works for which only Revenue Accounts are kept	8,70,796	
		12,02,296
Agricultural Works—		
Works for which neither Capital nor Revenue Accounts are kept		(c) 3,31,453
Contribution Works		16,869
Total Imperial ...		24,62,633
Capital— *Provincial.*		
Minor Works and Navigation		5,252
Revenue—		
Minor Works and Navigation		4,620
Total Provincial ...		9,872
Grand Total ...		24,72,505

(a) Includes Rs. 7,544, (b) Rs. 407, and (c) Rs. 8,769 on account of expenditure in England and exchange.

Gujarát Works.

Ahmedábád District.

The season was in some respects unfavourable for kharif as no rain fell until 6th July 1892, and consequently the cultivation of rice was relinquished to a great extent in favour of wheat and other crops. Despite the fact that the rabi crops were exceptionally good, the loss on the kharif was not made up. The total rainfall registered at Parántij, the centre of the Hathmati irrigation district, was 44·88 inches as against 22·78 for the preceding year and an average of 25·57 for the preceding ten years. The total area irrigated during 1892-93 was 2,727 acres (386 kharif and 2,341 rabi) against 2,716 acres (1,367 kharif and 1,349 rabi) in the previous year, and the revenue amounted to Rs. 6,944 as against Rs. 7,873. On the Khári Cut the total revenue was Rs. 4,361, made up of Rs. 4,161 assessed on 778 acres for kharif crop and Rs. 200 on 60 acres for rabi crop. The revenue in the preceding year was Rs. 5,754, and there was therefore a decrease of Rs. 1,393, due to the fact that the rain came very late, and, when it did come, was of very long continuance. Remissions and free grants of water amounting to Rs. 805 were given during the year. A sum of Rs. 4,899 was spent during the year on earthworks and collecting materials for the extension and improvement of the Náika Channel. Repairs were effected to the Viramgám Channel at a cost of Rs. 2,698. Works for the improvement of six village tanks were completed or in progress during the year.

Kaira District.

Two lines of drainage in the Charotar were under survey and a project for one of them, the Sandesar drain, was submitted. The survey for the other, the Karamsad drain, was completed and the estimates prepared.

Surat and Broach Districts.

The drainage works in the Anklesvar táluka of the Broach district were in progress. The expenditure during the year amounted to Rs. 7,466, and the total outlay up to date to Rs. 8,487, against a sanctioned estimate of Rs. 12,811.

Deccan Works.

Khándesh District.

The project for distributaries to the Parsul tank was sanctioned during the year, and Rs. 3,892 out of an allotment of Rs. 5,000 expended. The Umrána Bandhára was nearly completed during the year. Improvements and repairs to the Dhulia channel and Betávad Bandhára were practically completed during the year. Rs. 6,136 were spent on the maintenance of the Jamda Canals and Rs. 13,726 on improvements and repairs to the old irrigation works in the district.

Násik District.

There was no expenditure on capital account in connection with the Waghad Tank, Pálkhed and Wadáli canals; ordinary clearance and repairs were carried out. Rs. 208 were expended on capital account in rectifying the level of an aqueduct connected with the Ojhar Támbat Canal. The total expenditure on original works during the year was Rs. 2,819, as against Rs. 2,346 in the previous year.

Ahmednagar District.

The expenditure from capital account on the Ojhar Left Bank Canal was Rs. 1,636, incurred in completing a skew slab drain across the Loni Hanmantgaon distributary, continuing the remeasurement of land taken up for the canal from villages in the Sangamner

táluka and commencing masonry outlets. No similar expenditure was incurred on the Lákh Canal and Bhatodi Tank.

Poona District.

During the year under review a sum of Rs. 32,245 was expended from the capital account on the Mutha Canals, and Rs. 4,505 on the Shirsuphal extension.

Nira Canal.

Work on the Bhátghar dam was chiefly confined to the construction of the two waste weirs, with which good progress was made during the year. On the Main Canal the principal works in progress during the year were the construction of distributary No. 59 and of permanent outlet to all distributaries. Two over-bridges were also built. The sanctioned estimate for the project was Rs. 43,54,655, and the expenditure during the year Rs. 76,760. The total expenditure up to the end of March 1893 was Rs. 39,77,716.

Sholápur District.

A sum of Rs. 336 was expended on capital account on the Mhasvad Tank works, now, with the exception of 8 distributaries, complete; the total outlay up to the end of March 1893 was Rs. 19,74,284 as against an estimate of Rs. 20,24,327. Rs. 5,000 were expended during the year in widening and deepening the Ekruk Tank canal. The capital accounts of the Ashti and Koregaon Tanks were closed on the termination of the year under report as both projects had been completed. Rs. 2,357 were expended on surveying certain storage tanks in Sángola and Málsiras tálukas for former relief projects.

Bijápur District.

The contour survey and trial pits, commenced last year in connection with the Hattargi Tank surveys, were completed during the year; and those in connection with the Sangogi Tank commenced.

Sátára District.

The work of reconstructing the Nehr dam was commenced during the year. A sum ~~of Rs. 891~~ was expended from capital account in providing a new sluice gate and three module heads on the Rewári Canal. There was no expenditure from capital account on the Maini and Chikhli Canals. Capital expenditure on the Upper Mán River and Krishna Canal amounted to Rs. 716 and Rs. 9,154 respectively.

Belgaum District.

The expenditure during the year on the Gokák Canal, 1st section, was Rs. 14,892, bringing the total outlay from ~~the commencement to Rs. 5~~,12,053. Rs. 6,053 were spent during the year on repairs and improvements to four tanks.

Dhárwár District.

There was no capital expenditure in the Dhárwár district during the year. The four tanks at Madag, Dambal, Medleri and Assundi were maintained at a cost of Rs. 7,811 or Rs. 391 less than in 1891-92. A sum of Rs. 25,235 was spent on repair and improvement of 41 tanks irrigating more than 50 acres and Rs. 1,585 on 22 tanks irrigating less than 50 acres.

Sind Works.

Begári Canals.

Capital expenditure to the amount of Rs. 1,990 was incurred in constructing an inverted syphon on the Desert Canal. The estimate of Rs. 2,41,503 for enlarging and extending the Unharwáh Canal was sanctioned during the year and the work was commenced. A new mouth was constructed to the Desert Canal at a cost of Rs. 62,369. A new loop was commenced as a protection for the Kashmor bund from erosion.

Shikárpur Canals.

No important works were carried out from capital account during the year.

Ghár Canals.

Three old bridges over branches of the Ghár canals were removed and the construction of new ones commenced, Rs. 2,000 being spent within the year. A sluice on the Navrang was reconstructed at a cost of Rs. 1,242. The other works were maintained and repaired as usual.

Western Nára Canals.

The Pritchard Canal was practically and the Lohriwah excavation entirely completed during the year. ~~Rs. 70,050 were spent~~ on the new feeder to the Western Nára and ~~Rs. 19,612~~ on the Dhamrao Canal. Rs. 15,000 were spent on repairs to the Nára bunds.

Eastern Nára Canals.

The most important work in progress in the district was the clearing of the Nára between Játri and Keti. The outlay up to the end of March 1893, including Rs. 5,535 expended in the previous year, was Rs. 40,975. The construction of a new bund between Bakhora and Bakár was commenced and Rs. 14,262 spent out of an estimate of Rs. 19,920. The work of throwing back the banks of the Mitráo Canal was completed at a cost of Rs. 51,031. Various improvements to the bridges were commenced with a view to facilitating the navigation of the canal.

Hyderábád Canals.

The bund along the right bank of the Sarfrazwáh was completed at a cost of Rs. 9,761 during the year. A new mouth to the Lohano Canal was constructed and a bad bend in the Gharo Rano removed at a cost of Rs. 1,337.

Fuleli Canals.

The regulator over the old Fuleli was completed during the year at a cost of Rs. 35,308; that at the 60th mile was completed up to the springing of arches. The work of enlarging and extending the tails of 5 branches of the Fuleli was commenced during the year. The works noticed in the last year's report, *viz.*, the new heads to Kamalwáh and Jamwáh and the head regulator to Wádhuwáh, were completed during the year.

Karáchi Canals.

The Hilaya bund mentioned in last year's report was completed at a cost of Rs. 7,509. Two new loop bunds, one at Bahadipur and the other at Barahgaza Khádi, were in progress during the year. Rs. 7,669 were expended on the restoration of the old embankment of the Baghár.

CHAPTER V.—FINANCIAL REVIEW.

General Finance.

General results.

In the following statement the receipts and expenditure of the Civil, Military, Public Works, Postal and Telegraph Departments in the Bombay Presidency for the year 1892-93 are compared with those of the preceding year 1891-92. The figures for the latter year include journal entries made after the submission of the review of last year, and do not, therefore, exactly agree with those shown in the review of that year. Similarly, the figures for 1892-93 are subject to alterations before the closing of the accounts for the year ;—

Heads.	Receipts.			Expenditure.		
	1891-92.	1892-93.	Difference, + or —.	1891-92.	1892-93.	Difference, + or —.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Civil Department — Imperial	8,01,50,154	8,09,67,463	+8,17,309	81,56,150	83,91,810	+2,35,160
Civil Department — Provincial	3,90,78,898	3,97,04,382	+2,74,516	3,61,07,304	3,68,73,826	+7,66,522
Civil Department — Local	56,96,030	55,13,070	—1,82,960	43,00,037	43,17,758	+17,721
Irrigation, Imperial	6,44,118	6,99,798	+55,680	22,63,171	24,28,954	+1,65,783
Do. Provincial	16,897	17,475	+578	38,107	9,872	—28,235
Military Works, Imperial	21,155	21,791	+636	2,12,953	1,87,900	—25,053
Civil Works, Imperial	.....	.....	.....	2,95,920	2,62,269	—33,651
Do. Provincial...	7,48,249	7,09,954	+51,705	39,59,535	34,79,962	—4,79,573
Do. Local	.....	.....	.....	13,00,430	13,82,218	+81,786
State Railway, Imperial	.....	.....	.....	5,816	1,303	—4,513
Do. Provincial	.....	64,086	+64,086	—918	.....	+918
Do. Construction, Provincial	.....	.....	.....	11,72,211	4,21,809	—7,50,402
Do. Working Expenses, Provincial ...	.....	.....	.....	.....	64,205	+64,205
State Outlay, Guaranteed Railways. — Land	.....	.....	.....	2,848	6,311	+3,463
State Outlay, Guaranteed Railways. — Control	.....	.....	.....	2,10,083	2,27,164	+17,081
Telegraph Department... — Imperial...	20,81,741	21,99,434	+1,17,693	18,88,953	23,31,075	+4,42,122
Telegraph Department... — Provincial	4,157	.....	—4,157	—3,850	.....	—3,850
Military Department	9,76,705	8,43,470	—1,33,235	2,72,13,127	2,88,47,263	+16,34,136
Postal Department	26,53,129	25,32,199	—1,20,930	18,23,916	18,90,227	+66,311
Total ...	13,29,71,233	13,33,63,122	+3,91,889	8,88,53,293	9,10,23,324	+21,69,931

The total receipts during the year amounted to Rs. 13,33,63,122 and the expenditure to Rs. 9,10,23,324, yielding a surplus of Rs. 4,23,39,798, which is less by Rs. 17,78,042 than the surplus of last year. On the receipt side the statement shows a net increase of Rs. 3,91,889 over last year's actuals, the improvement being most marked under Civil Department, Imperial, and Telegraph Department, Imperial. State Railway Provincial receipts represent the gross earnings of the Hyderábád-Umarkot Railway which have been shown in the accounts for the first time. On the other hand, Civil Provincial and Local, Military and Postal Departments show a considerable falling off. On the expenditure side the statement exhibits a net increase of Rs. 21,69,931 over last year's actuals. The increase is most marked in Civil Department, Imperial and Provincial, Irrigation, Imperial, Telegraph Department, Imperial, and Military Department. On the other hand, the heads Civil Works, Provincial, and State Railway Construction, Provincial, show a considerable decrease. The differences both in revenue and expenditure of the Civil Department, Imperial and Provincial, are fully explained in the following paragraphs.

Imperial and Civil transactions.

The annexed table shows in detail of major heads the Imperial civil revenue and expenditure. Revenue shows a net increase of Rs. 8,17,309 and expenditure a net increase of Rs. 2,35,160 as compared with the figures of 1891-92 :—

Revenue and Receipts.	Actual Income.		Increase or decrease.
	1891-92.	1892-93.	
	Rs.	Rs.	Rs.
I.—Land Revenue	1,70,74,602	1,96,56,563	+19,65,693
Portion of Land Revenue due to Irrigation.	6,16,268	.....	
II.—Opium	1,84,42,814	1,67,56,525	—16,86,289
III.—Salt	2,32,09,411	2,23,87,499	—8,21,912
IV.—Stamps	13,62,086	14,32,789	+70,703
V.—Excise	76,90,963	76,92,718	+1,755
VII.—Customs	32,91,333	34,15,303	+1,23,970
VIII.—Assessed Taxes	18,53,942	19,70,264	+1,16,322
IX.—Forest	16,42,325	16,34,772	—7,553
X.—Registration	2,68,894	2,85,424	+16,530
XI.—Tributes from Native States	12,66,291	12,85,493	+19,202
XII.—Interest	18,78,137	18,64,515	—13,622
XV.—Mint	8,89,975	21,04,370	+12,14,395
XXII.—Receipts in aid of Superannuation, Retired and Compassionate Allowances ...	1,76,707	1,47,231	—29,476
XXIII.—Stationery and Printing	21,357	40,309	+18,952
XXV.—Miscellaneous	4,65,049	2,93,688	—1,71,361
Total ...	8,01,50,154	8,09,67,463	+8,17,309

Expenditure.	Actual Expenditure.		Increase or decrease.
	A. 1891-92.	B. 1892-93.	
	Rs.	Rs.	Rs.
1. Refunds and Drawbacks	5,18,992	7,26,412	+2,07,420
2. Assignments and Compensations	8,53,443	5,82,544	—2,70,899
4. Opium	26,631	25,980	—651
5. Salt	14,53,164	15,23,905	+70,741
6. Stamps	55,415	59,416	+4,001
7. Excise	2,62,478	2,52,027	—10,451
9. Customs	5,22,616	5,26,309	+3,693
10. Assessed Taxes	25,788	25,340	—448
11. Forest	9,63,569	9,47,758	—15,811
12. Registration...	1,50,452	1,38,968	—11,484
13. Interest on ordinary debt	2,198	544	—1,654
14. Interest on other obligations	4,17,333	4,37,911	+20,578
17. Mint	3,95,547	5,19,396	+1,23,849
18. General Administration...	3,85,111	4,09,491	+24,380
20. Police	38,135	.....	—38,135
23. Ecclesiastical	3,08,097	3,18,868	+10,771
25. Political	5,52,399	6,23,312	+70,913
26. Scientific and other Minor Departments ...	1,36,888	67,152	—69,736
27. Territorial and Political Pensions	7,62,047	8,28,904	+66,857
28. Civil Furlough and Absentee Allowances ...	532	2,744	+2,212
29. Superannuation Allowances and Pensions ...	35,873	71,012	+35,139
30. Stationery and Printing	2,61,017	2,67,450	+6,433
32. Miscellaneous	28,425	35,867	+7,442
Total ...	81,56,150	83,91,310	—2,35,160

The net increase of revenue was chiefly attributable to a large increase in Land Revenue and in Mint receipts, while there was a large falling off in the opium and salt revenue. The net increase in expenditure was due mainly to large increases under Refunds and Drawbacks, Salt, Mint, Political, Territorial and Political Pensions and Superannuation and Retired Allowances. This was counterbalanced to some extent by decreases under Assignments and Compensation, Scientific and other Minor Departments, Police, Forest, Registration and Excise. A brief explanation of the more important variations is given below :—

Causes of increase and decrease : Receipts.

Of the increase under "Land Revenue" Rs. 4,65,074 represents the Imperial share of the actual improvement in land revenue collections during the year 1892-93, and the difference Rs. 15,00,619 is the amount which reverted to Imperial on the introduction of the presene Provincial contract, in which the fixed allotment to Provincial has been reduced from Rs. 92,14,000 to Rs. 77,14,000. The increase in the actual collections of Land Revenue was due to the fact that in Broach, Belgaum and Bijápur revenue belonging to 1891-92 was paid in 1892-93, in Khándesh, and in several tálukas of Shikárpur survey rates were raised, and in Bombay the sale proceeds of lands on the Esplanade were credited to Land Revenue instead of "XXV Miscellaneous extraordinary items." The decrease of Rs. 16,86,289 under "Opium" was due to the fact that in 1891-92 the exports of opium were excessive in consequence of the reduction of the pass fee from Rs. 650 to Rs. 600 per chest. The heavy exports of 1891-92 overstocked the China market, and in 1892-93 the exports accordingly fell off. The falling off of Rs. 8,21,912 under the heading "Salt" was mainly in excise duty on that commodity. In 1891-92, the revenue from the same source was very

high and included excise duty on salt collected in Portuguese India. Owing however to the termination of the Treaty salt consumed in Portuguese India ceased to yield duty to the British Government during the year. The total increase under the heading "Stamps" amounted to Rs. 2,82,813, which was chiefly due to a special receipt on account of probate duty paid on the estate of a millionaire, and also to the receipt of composition of stamp duty chargeable on the debentures of the Bombay and Karáchi Port Trusts. The increase under "Excise" was apparently small, but the accounts nevertheless showed important fluctuations in the several minor heads. The head "License Duty" showed an improvement, chiefly due to large sales of liquor in Sind, Broach, Surat, Kolába and Ratnágiri, to an increase in the amount realized from the sales of bhang and charas farms, and to the enhancement of the tree tax from Rs. 6 to Rs. 8 per tree. On the other hand, there were decreases due to the abolition of the recoveries of penalties for deficient sales, to a short production of toddy from cocoanut trees, and to remissions. There was a falling off also in transit duty on excise opium, resulting from the abolition of the minimum guaranteed vend system. The sale proceeds of excise opium also showed a decrease owing to a reduction in the selling rate. A considerable improvement under the head "Customs" was owing partly to larger importations of brandy and whisky, partly to larger exports of rice to Mauritius, Zanzibar, Mozambique, Aden, Muskat and Ceylon, and also to import and export duty collected on the Goa and Daman frontiers on the termination of the Anglo-Portuguese Treaty. A large increase in the earnings of the different railways, payment of some large political pension higher profits made by cotton mills in Bombay, interest on new loans issued by the Bombay and Karáchi Municipalities, the opening of the Umarkot Railway, and the formation of the Broach Ginning Association tended to increase the amount of assessed taxes collected which were larger by Rs. 1,16,322 than in the previous year. The decrease under "Forests" was chiefly due to a falling off in the receipts from timber removed from forests by consumers in the Southern Division and partly to diminished demand for firewood and charcoal from Government forests owing to the great difficulty in obtaining labour, the absence of a good market caused by sales in Inámdári lands, and to the North-Western Railway taking less wood. The total decrease thus caused was however partly counterbalanced by an increase in the Northern and Central Divisions from grazing and partly by sale of timber removed by Government agency in larger quantities than in 1891-92. A favourable season and the more general recognition of the advantages of Registration were the causes of the large improvement of Rs. 16,550 under this head, the number of registrations in 1892-93 having exceeded that in 1891-92 by 18,634. Tribute from Native States increased by Rs. 19,202, due to the recovery in 1892-93, of a large balance of arrears of tribute from Káthiáwár, to the receipt in 1892-93 of one of the instalments of the tribute from Lunávada due in 1891-92, and also to the contributions from the Miraj and Mudhol States being now recovered in the year in which they fall due instead of one year in arrears as hitherto. Mint receipts rose by Rs. 12,14,395, which was due to the large increase in the coinage turned out during the year, which was 9 crores against 4 crores only in 1891-92. The decrease under the heading "Receipts in aid of Superannuation" was due to the fact that the fund has been closed and that subscriptions decrease yearly with the retirement and death of old subscribers. The increase under Stationery and Printing was due to a larger supply of printing paper being sent to the Superintendent, Amraoti Jail. There was a falling off of Rs. 1,71,361 under the heading "Miscellaneous," owing to the actuals for 1891-92 having included large and exceptional receipts from the Bombay Port Trust, Bombay Municipality, and from the sale-proceeds of a piece of land on the Esplanade, Bombay. The decrease was counterbalanced by a considerable increase in the revenues of the Somáli Coast, the Customs revenue there in 1891-92 having been seriously affected by disturbances in the interior.

Expenditure.

Refunds and Drawbacks granted rose by Rs. 2,07,420, the largest increases being under the heads Stamps and Customs. In the former the excess was chiefly due to the refund to the Bombay Port Trust of composition of stamp duty on the Prince's Dock Loan, while that in the latter arose from the refund of the common Customs receipts for the tenth, eleventh and twelfth years of the Anglo-Portuguese Treaty. The decrease under "Assignments and Compensations" was due to the fact that owing to the termination of the Anglo-Portuguese Treaty the usual subsidy of 4 lákhs was not paid to the Goanese Government during the year, and also Rs. 99,000 less than in the previous year were paid as compensation for salt-pans. This decrease, however, was counterbalanced by a payment of Rs. 1,77,000 as custom tariff compensation for the tenth, eleventh and twelfth years of the treaty, and also Rs. 48,000 on account of arrears of excise compensation. The increase of Rs. 70,791 under "Salt" was due to the cost of the new Preventive Establishment for the Portuguese Frontier, to the expenditure on the Goa Mixed Commission, and to large expenditure incurred under salt purchase and freight, owing to the stock of Barágra salt having been brought up to two years' demand under Government orders. The increase under Stamps was due to a change in the method of calculating the cost of stamp paper issued for sale by which the sterling value is converted at the official rate of exchange instead of as formerly at two shillings the rupee. The increase thus caused was, however, reduced by a considerable decrease caused by the transfer of a portion of the salaries of the Inspector-General, and Inspectors of Registration from this head to 18—General Administration. The saving under excise was caused to a great extent by temporary vacancies in the sanctioned establishment. There were also savings in travelling allowance to village officers for collecting tree tapping

fees, and in the cost of numbering toddy trees, which is now imposed on the owners. The decrease under "Forests" was attributable to curtailment of timber operations in the Southern Circle, as there was a large stock which could not be sold in 1891-92, owing to the distress prevailing in some districts, to a payment to a contractor having been withheld, as his timber did not reach the depôt in time for sale, and to a smaller crop of myrabolams. On the other hand, the saving was considerably counterbalanced by increased expenditure in connection with the reorganization of the superior appointments of the Forest Department from 1st April 1892. The transfer of the charges of the office of the Inspector-General and Inspectors of Registration and Stamps from this head to 18—General Administration, caused an apparent saving under Registration, though there was increased expenditure on commission to Sub-registrars and Village registrars arising out of the increased amount of business done. The increase on Interest on other obligations was due to deposits in the Government Savings Bank having a tendency to increase and to a new actuarial valuation of the Bombay Uncovenanted Service Family Pension Fund having disclosed a smaller surplus than was anticipated, whereby the privileged rate of interest was allowed on a larger balance. The increase under Mint was due to reduced expenditure in 1891-92 on temporary establishment, to the absence of both the Mint and Assay Master on privilege leave, and to an increase in the coinage during 1892-93. The excess of Rs. 24,380 over last year's figures under the head General Administration was due to the Provincial Establishment in the office of the Accountant General having been transferred to Imperial under the new contract, a corresponding reduction appearing under Provincial expenditure under this head; to the Currency Office being in charge of an officer of a higher grade than was estimated for; to a special payment being made to the Bank of Bombay for copying lists of outstanding Government Promissory Notes. The saving under Police was nominal, and caused by the North-Western Railway and Rajputána-Malwa Railway Police charges having been provincialized under the new contract. The increase of Rs. 10,771 under "Ecclesiastical" was chiefly due to the payments of salaries in 1892-93 being greater than in the previous year. The increase of Rs. 70,913 under the head "Political" was chiefly attributable to the transfer to this head of the allowances to certain Afghan refugees formerly recorded under 27—Territorial and Political Pensions and to the payment of the allowance of Sardar Hussainkhan, formerly paid from the Rawal Pindi Treasury. The charges on account of the Somáli Survey and the Aida Galla expedition also swelled the excess. The decrease of Rs. 69,736 under "Scientific and other Minor Departments" was due to the actuals of 1891-92 including census charges. The decrease would have been still greater had it not been counterbalanced by the transfer to Imperial of the pay of the Veterinary Officer in charge of the Veterinary College. The excess under Territorial and Political Pensions was due to new pensions, to the payment of arrears, and to an allowance made for the funeral expenses of Mir Ali Mordan, a member of the Khairpur Branch of the Sind Mirs. The increase of Rs. 35,139 under "Superannuation allowance" was due to Imperial Marine Pensions having for the first time been finally charged in the accounts of the Civil Department in the year under review. The excess of Rs. 6,433 under "Stationery and Printing" represents increased expenditure under stationery purchased in India for the Central stores; that under "Miscellaneous" is due to payments made to Messrs. Thomas Cook & Son on account of the pilgrim traffic to Jedda.

Provincial transactions.

The following table exhibits in detail the Provincial revenue and expenditure of 1892-93 as compared with in 1891-92:—

Revenue and Receipts.	Actual Income. A. 1891-92.	Actual Income. B. 1892-93.	Increase or decrease.
	Rs.	Rs.	Rs.
Opening Balance	46,01,994	40,70,106	.....
I.—Land Revenue	2,72,20,473	2,66,25,112	−5,95,361
III.—Salt	56,669	57,083	+414
IV.—Stamps	40,86,259	42,98,369	+2,12,110
V.—Excise	25,63,654	25,64,239	+585
VII.—Customs	39,673	43,069	+3,396
VIII.—Assessed Taxes	17,03,097	17,67,426	+64,329
IX.—Forest	16,42,324	16,34,772	−7,552
X.—Registration	2,68,894	2,85,425	+16,531
XII.—Interest	2,32,539	2,58,948	+26,409
XIII.—Post Office	600	.....	−600
XVI A.—Law and Justice—Courts of Law	4,06,727	4,31,628	+24,901
XVI B.—Law and Justice—Jails	2,18,914	2,02,476	−16,438
XVII.—Police	3,89,823	5,12,487	+1,22,664
XVIII.—Marine	68,942	65,915	−3,027
XIX.—Education	2,80,003	2,86,638	+6,635
XX.—Medical	1,13,275	1,19,029	+5,754
XXI.—Scientific and other Minor Departments	33,279	27,878	−5,401
XXII.—Receipts in Aid of Superannuation	2,36,274	2,31,261	−5,013
XXIII.—Stationery and Printing	66,150	69,291	+3,141
XXV.—Miscellaneous	51,624	77,037	+25,413
XXXII.—Buildings and Roads—Civil Works	2,741	2,593	−148
Contributions from Local Funds	2,96,964	1,43,706	−1,53,258
	3,99,78,898	3,97,04,382	−2,74,516

Revenue and Receipts—continued.	Actual Income. A. 1891-92.	Actual Income. B. 1892-93.	Increase or decrease.
Departmental Heads.	Rs.	Rs.	Rs.
XIV.—Telegraph	4,157	.....	−4,157
XXVI.—State Railway Gross Receipts	.....	64,086	+64,086
XXX.—Irrigation, Minor Works and Navigation	16,897	17,475	+578
XXXII.—Buildings and Roads—Civil Works in charge of Public Works Officers	7,46,249	7,99,954	+57,705
Total, Departmental Heads ...	7,69,303	8,81,515	+1,12,212
Total, Revenue and Receipts ...	4,07,48,201	4,05,85,897	−1,62,304
Total ...	4,53,50,195	4,46,56,003	−6,94,192

Expenditure.	Actual Expenditure. A. 1891-92.	Actual Expenditure. B. 1892-93.	Increase or decrease.
	Rs.	Rs.	Rs.
1. Refunds and Drawbacks	1,86,644	2,15,962	+29,318
2. Assignments and Compensations	91,87,519	99,74,914	+7,87,395
3. Land Revenue	63,82,747	65,64,573	+1,81,826
6. Stamps	1,66,246	1,78,247	+12,001
7. Excise	87,493	84,009	−3,484
10. Assessed Taxes	25,788	25,340	−448
11. Forest	9,63,569	9,47,758	−15,811
12. Registration	1,50,453	1,38,969	−11,484
13. Interest on Ordinary Debt	1,79,094	2,04,513	+25,419
15 Post Office	1,06,893	1,05,415	−1,478
18. General Administration	13,62,282	13,67,793	+5,511
19A. Law and Justice—Courts of Law	43,94,738	43,73,508	−21,230
19B. Law and Justice—Jails	6,35,653	6,46,975	+11,322
20. Police	53,25,510	51,30,230	−1,95,280
21. Marine	43,064	38,166	−4,898
22. Education	16,35,821	16,44,708	+8,887
24. Medical	13,27,677	14,21,758	+94,081
25. Political	3,25,252	3,28,826	+3,574
26. Scientific and other Minor Departments	1,87,420	1,59,586	−27,834
29. Superannuation Allowances and Pensions	15,53,428	16,06,178	+52,750
30. Stationery and Printing	5,83,611	7,08,265	+1,24,654
32. Miscellaneous	3,61,461	2,53,928	−1,07,533
33. Famine Relief	2,158	3,530	+1,372
45. Civil Works	22,097	37,362	+15,265
Contributions to Local Funds	9,10,686	7,13,313	−1,97,373
	3,61,07,304	3,68,73,826	+7,66,522
Departmental Heads.			
16. Telegraph	3,850	.....	−3,850
37. Construction of Railways	11,72,211	4,86,014	−6,86,197
41. Miscellaneous Railway expenditure	−918	.....	+918
43. Irrigation—Minor Works and Navigation	38,107	9,872	−28,235
45. Buildings and Roads—Civil Works in charge of Public Works Officers	39,59,535	34,79,962	−4,79,573
Total, Departmental Heads ...	51,72,785	39,75,848	−11,96,937
Total, Expenditure ...	4,12,80,089	4,08,49,674	−4,30,415
Closing Balance ...	40,70,106	38,06,329	−2,63,777
Total ...	4,53,50,195	4,46,56,003	−6,94,192

There was thus a net decrease in revenue of Rs. 1,62,304 and a net saving in expenditure of Rs. 4,30,415 as compared with the figures of the previous year. The more important variations between the actuals of 1891-92 and 1892-93 under the Civil revenue and expenditure heads are explained below:

Causes of increase and decrease: Receipts.

The decrease of Rs. 5,95,361 under "Land Revenue" was the net result of the curtailments in the present contract by Rs. 15,00,619, of the fixed allotments given to Provincial to balance expenditure, of an increase of Rs. 1,55,025 in the amount of land revenue and of Rs. 7,50,233 in alienated land revenue, due to the introduction of revised survey rates, chiefly in Shikárpur. The increases under Stamps, Assessed Taxes and Registration, and the decrease under Forests have been fully explained above. The increase under "Interest" was due to larger loans to cultivators. The increase under "Law and Justice" was due to exceptional receipts from unclaimed and escheated property in the Sholápur District, while the decline under "Jails" was caused by diminished recoveries of transportation and jail charges from

Native States. The increase under Police was due to the payment of arrears of previous years by the Bombay Port Trust of the moiety of the Dock and Harbour Police charges and to a large adjustment of the value of muskets returned to the Military Department in connection with the re-arming of the mofussil and agency police. The improvement under Education was due to an increase in the number of students in both the Art Colleges of Bombay and Poona. The increase under Medical was caused by larger receipts from paying patients at the European General Hospital in the Presidency town and at Aden, although on the other hand there was a decrease under contributions, chiefly due to the stoppage of the Gáekwár's contribution for the chair of the Professor of Clinical Medicine and to the contribution from several municipalities having fallen into arrears. The falling off under Scientific and other Minor Departments was due to the transfer of the Empress Botanical Garden to the Agricultural Society of Western India. The operation of the new foreign service rules was the cause of the decrease under the next head "Receipts in aid of superannuation." The increase under "Miscellaneous" was chiefly due to a special adjustment in connection with some old outstanding items in the accounts of the Bombay Small Cause Court and of the first class Subordinate Judge, Sátára, under unclaimed deposits. A contribution of Rs. 1,50,000 by the Hyderábád and Thar and Párkar Local Boards in 1891-92, towards the completion of the Hyderábád-Umarkot Railway which was not repeated in 1892-93, accounted for the falling off of Rs. 1,53,258 in the "Contributions from Local Funds."

Expenditure.

The increase under "Refunds and Drawbacks" represented the provincial share of the refunds of certain chief heads of revenue, and an explanation of the causes given above applies here also. The increase in "Assignments and Compensations" was due to the payment in arrears from October 1878, of compensation due to the Pálanpur Darbár and to an increase in the adjustment of alienated land revenue of Rs. 7,50,233, chiefly in Shikárpur. The increase in "Land Revenue" was attributable to the increased establishment consequent on the re-organization of the Department of Land Records and Agriculture and to the payment of cash allowances to village officers in arrears from 1874-89. The causes of the increase under Stamps and decreases under Excise, Forest and Registration have been explained above. The increase under "Interest on ordinary debt" represented interest paid to the Government of India on the funds allotted to the local Government for loan purposes. The excess under "General Administration" was the net outcome of an increase caused by the transfer to this head of the charges for the salaries of the Inspector-General of Stamps, Registration and Prisons from April 1892, and savings of expenditure under staff and household and tour expenses of His Excellency the Governor. The saving under "Law and Justice, Courts of Law" was due to temporary vacancies among the Judges of the High Court, to the absence of the Administrator-General and Prothonotary on long leave and to the retirement of the Legal Remembrancer, whose successor draws a lower salary. The increase under "Law and Justice, Jails," was attributable to a growth in the jail population, and to a special charge incurred in the construction of huts for convicts employed on the Dhulia Water Works. The falling off of Rs. 1,95,280 under Police was caused by heavy expenditure in 1891-92, not repeated in 1892-93, on clothing supplied to the District Police, on building for the Pálanpur Agency Police and by the transfer to the head "Stationery and Printing" of expenditure on stationery purchased departmentally. The falling off from these causes was counterbalanced by the payment of arrears to village policemen. The decrease under "Marine" was due to a special charge for the cost of removing and replacing the Hajmari Beacon in 1891-92, not having been repeated during the year under review. The increase under "Education" was due to the payment of leave allowances to the Director and some of the Inspectors. The expenditure on Government Schools, General, was Rs. 8,000 below that of 1891-92, but that on Government Colleges, Professional, showed an equivalent increase. There was also an increase of expenditure on scholarships. The grant to the University was Rs. 5,000 less than in 1891-92. The increase under "Medical" was attributable to the opening of new hospitals in Bombay as well as in the mofussil. The small increase under "Political" was due to special law charges and to the creation of a post of Native Assistant to the Political Superintendent, Pálanpur. The decrease under "Scientific and other Minor Departments" was due to the transfer of the Empress Botanical Garden to the Agricultural Society of Western India, to the salary of the Superintendent of the Civil Veterinary Department having been charged wholly to Imperial instead of partly to Imperial and partly to Provincial, and to a special charge in 1891-92, in connection with the tabulation of certain returns for provincial purposes in connection with the census. The excess under Superannuation Allowances and Pensions is to be explained by the gradual growth of expenditure and the payment of certain arrears at the Presidency. The chief cause of the large increase under "Stationery and Printing" was the transfer of the expenditure on local purchases of country stationery by large offices to this head. The expenditure has hitherto been debited to the departments concerned. The decrease under "Miscellaneous" was due to the fact that in 1891-92 arrears of the assessment on Government buildings were paid to the Bombay Municipality, while in 1892-93 only the ordinary charge was paid. The increase under Civil Works was due to special expenditure for the improvement of water-supply in the districts in which scarcity was prevailing, and the decrease under Contribution from Provincial to Local Funds is to be accounted for by the fact that the actuals for 1891-92 included specially large receipts for Public Works and for water-supply.

Debt and Remittances.

The following table shows the receipts and expenditure of the year 1892-93 under the heads of "Debt and Remittances." No comparison is attempted to be made with the transactions of the previous year as there is little or no relation to each other in the receipts and expenditure of any two years :—

Debt and Remittance Account.	Receipts.	Outgoings.	Debt and Remittance Account.	Receipts.	Outgoings.
	Rs.	Rs.		Rs.	Rs.
Permanent Debt—					
Government Stock Notes	.....	2,000	*Provincial Advance and Loan Account.*	6,16,500	12,33,002
Unfunded Debt—			*Remittances*—		
Special Loans	.....	.....	Other Local Remittances	24,12,40,279	24,12,63,173
Deposits of Service Funds	1,28,202	47,573	Remittances by Bills...	2,43,73,157	2,44,58,168
Savings Bank Deposits	19,45,782	15,10,208	Foreign Remittances	6,04,89,671	5,01,00,000
Deposits and Advances not bearing Interest—			*Account between Civil and Civil* ...	50,07,310	4,55,82,846
Balances of Provincial Savings ...	11,05,314	15,45,993	*Account between Civil and other Departments*—		
Excluded Local Funds	34,48,097	23,87,832	Post Office	1,09,48,174	1,12,38,721
Departmental and Judicial Deposits	1,69,36,185	1,64,89,357	Telegraph	21,99,434	20,31,075
Local Fund Debt Accounts ...	29,285	54,952	Marine	1,00,752	18,61,202
Advances recoverable	22,56,231	22,45,708	Military	13,34,997	2,21,87,051
Permanent Advances	15,220	20,410	Public Works	1,70,90,704	2,69,91,398
Account with Foreign States ...	2,88,478	3,46,060	Guaranteed Railways	6,01,89,907	2,70,46,103
Coinage Account	9,96,58,009	9,90,41,499	*Remittance Account between England and India*...	9,99,877	4,709
Suspense Account	9,57,120	9,70,585	*Secretary of State's Bills*	7,46,36,413	12,75,68,800
Cheques and Bills	2,81,56,039	2,81,66,715			
Miscellaneous	5,76,501	5,50,635			
Departmental Accounts	53,105	46,430			
Loans to Notified and Presidency Corporations, &c.	3,04,475	1,02,046	Total ...	64,73,95,016	73,15,45,789

The figures under the head "Permanent Debt," "Government Stock Notes" represent the refund of the value of stock notes withdrawn from circulation. The transactions recorded under "Unfunded Debt," "Deposit of Service Funds," were only in connection with the Bombay Uncovenanted Service Family Pension Funds. The Savings Bank deposits exceeded the withdrawals by Rs. 4,35,574. The out-goings under Deposits and Advances, Balances of Provincial Savings, exceeded the receipts by Rs. 2,63,777 + 86,902. The former sum represented provincial and the latter represented the local deficit for the year. The transactions under "Loans," sub-head "Loans to Presidency Corporation," &c., represent recoveries of advances on account of loans to the Bombay Port Trust, the Bombay Municipality and the Cambay State. The receipts include, besides the annual fixed instalments, a special recovery of the unexpended balance of the annual surplus revenue of the Bombay Port Trust, one-half of which is taken in liquidation of the interest bearing and the other half of the non-interest bearing debt. The outgoings include a sum of Rs. 1,00,000 advanced to the Bombay Port Trust. The receipts and outgoings under "Provincial advance and loan account" are made up of advances to cultivators, advances under special laws, advances to landholders and notabilities, and advances to Municipalities and Local Boards. The outgoings under the first of these heads include large advances in the Bijápur, Dhárwár, Karáchi, Hyderábád and Shikárpur Districts, and those under the second include Rs. 20,000 advanced to the Ahmedábád Thákors. The recoveries amount to Rs. 58,000, so that the difference represents adjustments of overcredits. The receipts under the fourth head include Rs. 99,000, representing recoveries of outstanding balances and the outgoings include Rs. 59,000 advanced to the Panvel Municipality and Rs. 1,50,000 advanced to the Dhárwár Municipality, the difference between the aggregate of these figures and those shown above representing adjustment of overcredits. Under Remittances the figures for the first two sub-heads "Other Local Remittances" and "Remittances by Bills" call for no remark. The transactions under the third head "Foreign Remittances" merely represent movement of funds to meet the financial requirements of the country. The large outgoings under "Account between civil and civil" include interest on Government Promissory Notes finally charged off to the service head on the books of the Comptroller, India Treasuries. The transactions recorded under Remittance account between England and India are divided into two classes: (1) Receipts and payments in India on account of the Imperial Exchequer and (2) other remittance transactions with the India Office. Under the former the transactions passing through the Bombay books are adjustments with the London Post Office for Postal and Money Order transactions, Little Basses Light Vessel dues, balances of the Shipping Master's account with the Board of Trade in London and pensions paid to retired members of the Hongkong Police. Under the latter, the transactions are on account of stores purchased and pay and pensions recoverable from Provincial and Local Funds and Native States. The transactions under "Secretary of State's Bills" represent bills drawn by the Secretary of State and paid at Bombay.

Mint.

Gold Bullion.

No gold was tendered for coinage during the year 1892-93.

Silver Bullion.

The amount of silver bullion received from the Currency Department for coinage in exchange for Mint certificates during the year under report amounted to Rs. 9,55,91,009 against Rs. 4,03,19,203 in the preceding year, and the amount of British India uncurrent coin received for re-coinage was Rs. 84,506 against Rs. 1,43,148 in the previous year. In addition to these old Bikanir rupees of the gross value of Rs. 1,02,030 were received from the Political Agent, Bikanir, under the Native Coinage Act, on account of the Bikanir

Darbár. Treasure Trove silver coins of the value of Rs. 72 were received from the Royal Asiatic Society. The net value of the importations of silver bullion into the Port of Bombay amounted to 1,122½ lákhs of rupees in 1892-93 against 677½ lákhs in 1891-92. The silver tendered by merchants and others for coinage amounted to 834 lákhs of tolas (rupee weight) against 468½ lákhs in the preceding year, and was composed of the following items:—

Description of Silver tendered in 1892-93.	Amount in lákhs of tolás.	Description of Silver tendered in 1892-93.	Amount in lákhs of tolás.
Bar silver from London	364·01	Native Coins: Dutch koris	1·14
Do. Australia	55·34	Native Coins: Broach rupees	0·12
Do. America	264·92	Native Coins: Baroda rupees	0·07
Do. Genoa	45·12	Native Coins: Nágpur coins	0·08
Do. San Francisco	12·78	Native Coins: Persian coins	0·01
Sycee silver from China	25·87	Native Coins: Porbandar koris	0·01
Mexican dollars from America *viá* China .	31·12	Country silver and ornaments	3·47
Do. chopped dollars *viá* China ...	20·70		
Mixed dollars	1·77		
Peruvian dollars	7·47	Total ...	834·00

There was no coinage of gold during the year. Gold Coinage.

The nominal value of the silver coin issued from the Mint during the year under report was Rs. 9,69,35,081, and, with the exception of the coinage of the year 1877-78, was the largest on record. Of this amount Rs. 9,32,00,000 were issued in whole rupees, Rs. 5,52,010 in half rupees, Rs. 10,14,675 in quarter rupees, and Rs. 11,68,396 in two-anna pieces. Ten lákhs of new Bikanir rupees were coined, but only one lákh was issued to the Political Agent, Bikanir. The outturn of good coins of all denominations obtained from the weight of metal passed through the rolling mills amounted to 67·62, 64·72, 61·37 and 58·39 per cent. respectively. Silver Coinage.

Part of the silver tendered by the public and received on behalf of the Currency Department during 1892-93, amounting in value to Rs. 60,02,675, was transferred to the Calcutta Mint for coinage. Transfer of Silver Bullion to the Calcutta Mint.

The combined operative losses of the melting and mechanical departments amounted to about Rs. 47,031, which gave an operative loss of about Rs. 32·7 per lákh of silver rolled. As, however, the above figures may not be absolutely correct, it would be safer to consider the rate of loss at from Rs. 30 to Rs. 35 per lákh rolled. Operative losses.

The charges levied for the coinage of silver bullion during the year amounted to Rs. 20,10,202 as compared with Rs. 8,45,205 during the previous year. The total revenue from all sources amounted to Rs. 21,05,590 against Rs. 8,93,174 in 1891-92. Revenue.

The total expenditure on the fixed and extra establishments was Rs. 2,74,650 against Rs. 2,60,564 in 1891-92. The total outlay on local and English stores amounted to Rs. 1,32,038, which was more by Rs. 49,303 than the corresponding amount in the preceding year. The increase was chiefly due to the larger coinage. The contingent expenses amounted to Rs. 13,406 against Rs. 15,708 in 1891-92 and the *pro-formâ* charges to Rs. 6,98,965 against Rs. 3,85,541 in the year previous. The total current expenditure was Rs. 13,09,525 as compared with Rs. 8,33,765 in 1891-92. The expenditure on capital account during the year was Rs. 3,394 on buildings and Rs. 5,672 on plant. Expenditure.

The gross gain accruing to the Mint on the year's working amounted to Rs. 14,95,030 and the net profit to Rs. 7,96,065, against Rs. 4,44,950 and Rs. 59,409, which were the corresponding figures for the year 1891-92. Mint profit.

Currency.

Bombay Circle.

The gross circulation on 31st March 1893 was Rs. 7,90,30,260 against Rs. 7,56,63,840 on 31st March 1892, showing an increase of Rs. 33,66,420. In the subjoined statement the gross circulation of the past year and the year before is shown in detail of notes of each denomination:— Circulation.

	Number of Notes for Rupees								Total.	
	5	10	20	50	100	500	1,000	10,000	Pieces.	Value.
Bombay...	2,78,494	8,88,477	1,19,493	81,040	1,06,180	8,628	20,179	2,380	15,04,871	7,56,30,100
Nágpur	221	176	125	99	90	3	1	...	715	21,815
Akola	185	140	55	42	29	3	2	...	456	11,925
Gross circulation on 31st March 1892	2,78,900	8,88,793	1,19,673	81,181	1,06,299	8,634	20,182	2,380	15,06,042	7,56,63,840
Bombay...	3,00,350	9,62,740	1,29,892	92,596	1,18,335	9,645	25,955	1,803	16,41,315	7,89,97,635
Nágpur	217	174	123	96	84	3	1	...	697	20,965
Akola	182	136	52	41	28	3	2	...	444	11,660
Gross circulation on 31st March 1893	3,00,759	9,63,050	1,30,056	92,733	1,18,447	9,651	25,958	1,803	16,42,456	7,90,30,260
Increase or decrease	+21,858	+74,257	+10,383	+11,552	+12,148	+1,017	+5,776	—577	+1,36,414	+33,66,420

It appears from the above figures that the circulation increased in 1892-93 in the case of all notes except those of Rs. 10,000, which are affected by circumstances which do not affect those of lower value.

Low value notes.

The monthly variations during the two years in notes of Rs. 100 and under are exhibited below :—

Months.	Number of Pieces of Notes of Rupees									
	5		10		20		50		100	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
April ...	310	295	845	931	114	123	77	86	103	114
May ...	329	298	869	936	113	118	78	88	101	116
June ...	321	296	849	936	108	119	78	89	101	115
July ...	326	312	854	962	108	124	73	89	100	113
August ...	333	313	887	957	113	125	76	88	100	116
September ...	325	310	883	940	116	123	75	86	96	115
October ...	324	308	906	962	122	127	77	91	99	118
November ...	305	298	897	947	121	129	75	90	99	118
December ...	328	307	955	1,013	128	136	83	93	104	122
January ...	288	299	884	956	119	128	78	92	100	120
February ...	284	289	887	942	120	125	79	91	100	117
March ...	279	300	888	963	119	130	81	93	106	118
Average ..	312	302	883	953	117	125	77	89	100	116

This statement shows a fairly persistent increase in all low value notes except those of Rs. 5, and even in their case, the sudden decrease which began in January 1892, probably in consequence of the forgeries of that denomination of notes, was arrested in April 1892 and converted into an increase, indicating a revival of confidence in these notes. The forger and utterer of the spurious notes was sentenced in December 1891 to transportation for life.

Notes of both high and low value.

No useful examination of the circulation of notes of Rs. 500 and upwards can be made without excluding those forming the Reserve Treasury balance, which varies quite independently of the circumstances which affect the demand for notes by the general public. The following table shows the circulation in lákhs on the last day of each month after excluding notes belonging to the Reserve Treasury :—

Months.	Notes for Rs. 100 and under.		Notes for Rs. 500 and over.		Total.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Lákhs.	Lákhs.	Lákhs.	Lákhs.	Lákhs.	Lákhs.
April ...	265	289	432	372	697	661
May ...	266	293	461	418	727	711
June ...	262	291	483	501	745	792
July ...	260	292	546	579	806	871
August ...	265	295	524	631	789	926
September ...	262	292	616	680	878	972
October ...	268	299	632	706	900	1,005
November ...	266	299	643	683	909	982
December ...	269	302	562	529	831	831
January ...	265	299	376	504	641	803
February ...	266	294	298	424	564	718
March...	273	302	297	391	570	693

The usual seasonal variations are observable in the figures for both years, the circulation falling off from about December when silver is needed to pay for produce brought for export and then increasing again until it reaches a maximum in the middle of the monsoon season when the vaults are utilized for the storage of silver during the dull trade period. There was however a decided increase in the circulation of last year over that of 1891-92, which was no doubt due to the exceptionally large imports of silver

Transactions with the public.

The average number of Home notes which passed over the counter on each working day during the past three years and the daily average of cancellations during the same period were as follows :—

Year.	Notes received.	Notes issued.	Notes cancelled.
1890-91 ...	6,940	8,200	5,614
1891-92 ...	8,203	8,524	5,544
1892-93 ...	8,102	9,037	5,785

The proportion of cancelled notes continued high as the principle of cancelling notes, which were to any extent soiled was maintained. A very large number of notes were cancelled in consequence of a panic which arose in the Presidency town in the month of August after the issue of the Government of India notification against stamping notes with trade advertisements. It is not improbable that the alarm was first created by Márwárries, who, it is said, bought up at a discount notes bearing endorsements and stamps. The alarm was aggravated by an unfortunate mistake on the part of the City Police who in one part of the City announced that after a certain date no notes bearing an endorsement of any kind would be cashed by Government. The consequence was that notes not absolutely free from endorsements were generally refused acceptance in the bazár and the currency office was besieged for several days by an excited throng which kept the staff engaged until 7 or 9 P.M., although five extra counters were opened. The panic subsided as rapidly as it had arisen.

The encashment of foreign notes during the past three years was as follows :— Encashment of Foreign notes.

	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.
Calcutta	28,58,885	33,24,180	39,03,800
Allahábád	8,85,180	8,15,230	5,50,455
Lahore	28,65,655	22,32,785	15,81,580
Madras	45,80,195	74,92,820	55,92,490
Calicut	3,18,370	3,01,595	2,81,745
Coconada	580	105	20
Karáchi	15,30,690	7,74,285	21,53,260
Rangoon	1,63,570	1,41,435	1,38,115
Total ...	1,32,03,125	1,50,82,435	1,42,01,465

Excepting in the case of Calcutta and Karáchi notes, these figures show a general decrease in the encashment of foreign notes in Bombay.

The amount of shroff-marked coins withdrawn from circulation during the year in Bombay alone, excluding transactions at District Treasuries, was Rs. 9,974 as against Rs. 24,096 in 1892-93. Withdrawal of coinage from circulation.

The receipts and issues of small silver during the year as compared with those of 1891-92 were as follows :— Exchange of coin.

	Receipts.	Issues.	Net Issues.
	Rs.	Rs.	Rs.
Half-Rupees	84,420	4,58,470	3,74,050
Quarter-Rupees	9,090	4,63 380	4,54,290
Eighth-Rupees	1,37,840	4,50,405	3,12,565
Copper	.....	.....	.....
Total ...	2,31,350	13,72,255	11,40,905
Total of 1891-92 ..	1,23,080	14,48,475	13,25,395
Increase or decrease ...	+1,08,270	—76,220	.....

The transactions at the one agency of Nágpur were as follows :—Issues 73,000, Receipts 58,000. The year opened with 15 temporary currency chests holding various sums amounting to Rs. 72,73,000. Nine additional currency chests were established during the year; but at its close there were only 12 in existence holding an aggregate balance of Rs. 43,75,000. Agencies.

Claims to the value of Rs. 10,505 were paid during the year for lost and mutilated notes against Rs. 25,100 in 1891-92 and Rs. 9,130 in 1890-91. Lost notes.

There was no new case of forgery, but some notes of the same description as those noticed in previous reports, purporting to be of the Bombay, Rangoon, Allahábád and Calcutta Circles of issue, were presented during the year. A singular case of forgery was prosecuted in Sind, in which the forged notes consisted of portions of handkerchiefs on which representations of notes of the Allahábád Circle were printed. The evidence in the Sind case went to show that the possessors of these cloth-notes wished to pass them as genuine and they were convicted by the Assistant Sessions Judge, under Section 474, Indian Penal Code. On appeal, however, the Sessions Judge of Shikárpur held that the documents which showed no signature could not be legally regarded as forgeries, and that though a charge of attempting to cheat might have succeeded, the conviction of the charge as laid must be set aside. Fraud and forgery.

Remittances of coin.

The following remittances were made in actual coin and bullion during the year under report :—

Bombay to Calcutta	Coin	Rs.	1,00,00,000
	Bullion	"	58,82,624
Do. Madras	Coin	"	73,00,000*
Do. Karáchi	"	"	56,21,000
Do. Rangoon	"	"	60,00,000
Total ...		Rs.	3,48,03,624

* This includes coin sent from the Dhárwár Currency Chest... ... ... Rs. 13,00,000
Do. do. Bijápur do. ... ... " 10,00,000

KARÁCHI CIRCLE.

Circulation.

The following figures show the gross circulation for the year under report and the year previous :—

Years.	5	10	20	50	100	500	1,000	10,000	Total Pieces.	Total Value.
1891-92	5,704	72,993	24,800	8,107	9,410	980	1,598	261	1,23,848	72,03,800
1892-93	4,576	81,709	22,618	7,889	10,193	1,001	1,568	343	1,29,892	81,19,580

The above figures show an increase of 9,602 pieces in the issues of notes of 10, 100, 500 and 10,000 rupees, and a decrease of 3,558 pieces in the issues of notes of 5, 20, 50 and 1,000 rupees, the result being a net increase in issues during the year of 6,044 pieces of the aggregate value of Rs. 9,05,780.

The encashment of foreign circle notes fell from Rs. 16,08,185 to Rs. 14,78,480, a decrease of Rs. 1,29,705. The chief source from which foreign circle notes are received is the Bank of Bombay, Karáchi, and the principal source from which the Bank receives the notes is the North-Western Railway. The decrease under this head was probably due to the decrease in the traffic receipts of the Railway.

Miscellaneous.

Shroff-marked coins to the value of Rs. 1,246 in whole rupees were received and were in balance at the end of the year. The receipts and issues of small coin during the year were as follows :—

	Receipts.	Issues.
	Rs.	Rs.
Half-Rupees	51,000	44,128
Quarter-Rupees	43,000	42,070
One-eighth Rupees	40,000	43,380
Total of 1892-93 ...	1,34,000	1,30,578
Total of 1891-92 ...	1,78,000	1,66,398

It appears from the above that there was a decrease both in the receipts and issues of small silver during the year as compared with the previous year. The decrease in receipts amounted to Rs. 44,000, while that in issues amounted to Rs. 35,820. The decrease was apparently due to depression of trade.

Lost notes.

The following is the statement of lost and mutilated notes paid during the year on bonds of indemnity :—

	5	10	20	50	100	500	1,000	10,000	Total. Pieces.	Total. Value.
Lost by Post	...	3	2	3	3	...	...	...	11	520
Lost accidentally	..	...	...	3	3	...	...	...	6	450
Mutilated	...	1	1	...	1	...	..	...	3	130
Total of 1892-93 ...	...	4	3	6	7	...	...	...	20	1,100
Total of 1891-92 ...	...	9	6	2	1	...	...	...	18	410

The above table shows an increase of 2 in the number of pieces and of Rs. 690 in the value of lost notes paid during the year.

Fraud and forgery.

A ten-rupee note of the Calcutta Circle was presented at the counter by a native accountant in the firm of Parmanand Virbhandas, Karáchi. According to the rules the forged note was sent to the District Superintendent of Police, Karáchi, for investigation, and copies of his two communications reporting the steps taken by him and the result of the enquiry were submitted to the Head Commissioner.

Remittances of silver.

The amount received from Bombay during the year was Rs. 56,24,000 against Rs. 1,21,78,000 in the previous year, while the amount paid to the Local Treasury and Banks was Rs. 26,06,000 against Rs. 29,60,000 in the previous year, being a decrease of Rs. 65,54,000 in the former and of Rs. 3,54,000 in the latter. This decrease was due to the extreme depression of trade during the year.

Land Revenue.

The following table shows the net amount of land revenue to be collected in the different districts during 1892-93, as compared with 1891-92. Full details concerning the cost of collection, the various tenures, the remissions, and so forth, in the different districts will be found in Part III, Appendix V-B. The number of distraints resorted to in connection with the collections has already been stated in Chapter II:—

Collectorates.	1892-93.	1891-92.
	Rs.	Rs.
Upper Sind Frontier	7,66,119	5,76,511
Shikárpur	31,67,934	27,96,654
Hyderábád	19,38,639	18,91,732
Karáchi	11,90,576	11,15,455
Thar and Párkar	6,74,934	5,94,247
Total (Sind) ...	77,38,202	69,74,599
Ahmedábád	17,31,288	16,69,884
Kaira	20,41,308	20,23,909
Panch Mahals	3,25,393	3,07,635
Broach	23,33,465	22,90,533
Surat	23,51,449	23,57,516
Thána	11,15,131	10,97,448
Total (Northern Division) ...	98,98,034	97 46,925
Násik	15,97,445	15,94,117
Khándesh	38,43,380	37,14,178
Ahmednagar	16,46,947	16,37,407
Poona	13,13,607	13,05,906
Sholápur	10,90,589	10,69,836
Sátára	16,84,122	16,33,960
Total (Central Division) ...	1,11,76,090	1,09,55,404
Belgaum	15,48,916	15,41,430
Dhárwár	25,27,097	25,03,456
Bijápur	14,37,366	13,85,820
Kánara	10,09,394	10,08,638
Ratnágiri	9,21,034	8,99,333
Kolába	11,04,749	10,98,855
Total (Southern Division) ...	85,48,556	84,37,532
Grand Total ...	3,73,60,882	3,61,14,460

The actual collections during the year amounted to Rs. 3,70,33,640 against Rs. 3,56,94,023 in 1891-92, or an increase of Rs. 13,39,617. There was an increase in the collection in every district except Surat; and the proportion of the collections to the demand was considerably better than in the two previous years.

Canal Revenue.

The revenue credited to the above head falls under two categories, *viz.* (I) the direct receipts of the Irrigation Department, and (II) the irrigation share of the land revenue assessed with reference to the supply of water from canals, tanks, dams and other sources, created or maintained by the Public Works Department. The works also are divided into two categories, the first including entirely new works and works restored or extensively improved within the last twenty-five years, for which capital and revenue accounts are kept, and the second including old works, mainly tanks and weirs, which are maintained by the department, and for which only revenue accounts are kept. The direct receipts on account of works for which capital and revenue accounts are kept were as follows:—

	Rs.
Imperial.	
(1) Productive Public Works—	
(a) Sind	78,586
(b) Deccan and Gujarát	3,33,321
(2) Protective Public Works—	
(a) Deccan and Gujarát	1,11,878
(3) Minor Irrigation Works—	
(a) Sind	44,709
(b) Deccan and Gujarát	71,364
Total, Imperial ...	6,39,858
Provincial.	
Minor Works and Navigation—	
(a) Deccan and Gujarát	17,475
Grand Total ...	6,57,333

The corresponding receipts in 1891-92 were Rs. 5,96,165.

The irrigation share of land revenue on account of works, for which capital and revenue accounts are kept, was as follows:—

	Rs.
(1) Productive Public Works—	
(a) Sind	... 9,46,228
(b) Deccan and Gujarát	... 7,279
(2) Protective Public Works	... ...
(3) Minor Irrigation Works—	
(a) Sind	...11,35,561
(b) Deccan and Gujarát	... 5,468
Total	...20,94,536

The following table shows the financial position, at the close of the year, of irrigation works of all classes for which capital and revenue accounts are kept:—

	Capital outlay in the year.	Capital outlay up to the end of the year.	Working expenses during the year.	Net revenue during the year, direct and indirect.
Imperial.	Rs.	Rs.	Rs.	Rs.
Productive Works	2,70,115	1,95,08,374	5,04,711	8,60,703
Protective Works	1,08,023	77,85,568	73,861	38,017
Minor Works	1,16,509	97,64,747	4,64,477	7,92,625
Provincial.				
Minor Works and Navigation	5,293	6,29,132	5,718	11,757
Total ...	4,99,940	3,76,87,821	10,48,767	17,03,102

The revenue and expenditure on account of works for which only revenue accounts are kept were as follows:—

	Works in Sind.	Works in Deccan and Gujarát.	Total.
	Rs.	Rs.	Rs.
Gross Revenue ... Direct	56,286	4,809	61,095
Gross Revenue ... Indirect	22,20,988	5,40,157	27,61,145
Total ...	22,77,274	5,44,966	28,22,240
Working Expenses	9,52,129	1,98,032	11,50,161
Net Revenue	13,25,145	3,46,934	16,72,079

A full account of the works in progress during the year is given in Chapter IV.

Public Works Revenue.

The revenue realized during the year 1892-93, as compared with that of the two previous years, under the heads Imperial Military and Provincial Civil Works was as follows:—

	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.
Imperial Military	26,097	21,155	21,791
Provincial Civil Works	8,12,475	7,48,249	7,99,954

The revenue under the head Military was principally that derived from rents of quarters. The figures of the receipts from this source for the year under review showed a small excess (Rs. 563) over those for the year previous. Under Provincial Civil Works the largest item of receipts was the collections from tolls on roads, which, including receipts under the Highway Act, amounted to Rs. 6,36,051, as compared with Rs. 6,43,629 and Rs. 5,82,654 in the preceding two years 1890-91 and 1891-92. Taking the whole of the receipts, under Civil Works there was an increase of Rs. 51,705 over the previous year's receipts made up principally of an increase of Rs. 53,396 under tolls (inclusive of receipts under the Highway Act), Rs. 4,529 under rents, and Rs. 1,969 under sale of produce, which was partly counterbalanced by a decrease of Rs. 4,545 under fines, refunds and miscellaneous, Rs. 1,389 under sale of old materials, and Rs. 1,159 under sale of materials received from old buildings.

Customs.

SEA CUSTOMS.

Port of Bombay.

A comparative table showing receipts under the head of Customs, Imperial, for the past two years is subjoined :— Imperial receipts.

	1891-92. Rs. a. p.	1892-93. Rs. a. p.
Imports	22,33,348 14 11	23,36,643 8 11
Deduct—		
Drawbacks	7,699 7 5	6,587 5 10
Refunds	39,031 13 10	57,617 9 2
Total Deductions ...	46,731 5 3	64,204 15 0
Net Imports ...	21,86,617 9 8	22,72,438 9 11
Exports	1,79,099 9 3	2,30,686 0 2
Deduct—		
Refunds	992 4 0	2,403 15 5
Net Exports ...	1,78,107 5 3	2,28,282 0 9
Other Items—		
Interest	49 14 0	4 7 9
Recovery of cost of establishment employed at private wharves.	26,898 14 0	26,858 14 0
Do. do. of pension contribution for do. ...	1,245 0 8	1,238 6 0
Total Revenue ...	24,40,642 4 10	25,95,431 4 10
Less—Total Deductions ...	47,723 9 3	66,608 14 5
Total Net Revenue ...	23,92,918 11 7	25,28,822 6 5

The following contrasted table shows the gross and net receipts from import duties on articles other than salt, recoveries on which are credited to the Salt Department :— Receipts from import duty.

No.	Head.	1891-92. Gross Receipts.	1891-92. Refunds.	1891-92. Drawbacks.	1891-92. Net Receipts.	1892-93. Gross Receipts.	1892-93. Refunds.	1892-93. Drawbacks.	1892-93. Net Receipts.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	Arms, Ammunition and Military Stores ...	84,825	12,308	1,080	71,437	78,215	17,664	1,283	59,268
2	Liquors—								
	Potable Spirits ...	12,13,683	64	996	12,12,623	12,56,197	27	2,965	12,53,205
	Other Liquors ...	5,38,915	26,629	873	5,11,413	5,34,988	39,798	1,332	4,93,858
3	Petroleum	3,94,244	32	4,749	3,89,463	4,65,569	129	1,008	4,64,432
4	Opium	161	...	...	161	477	...	...	477
5	Unclassified Heads—								
	Imports by Post ...	1,322	...	...	1,322	1,164	...	..	1,164
	Total ...	22,33,150	39,033	7,698	21,86,419	23,36,610	57,618	6,588	22,72,404

Under the first head of arms and ammunition, the gross receipts show a decrease of Rs. 6,610, compared with the year 1891-92. This decrease is due to a fall in the imports of gunpowder, both common and sporting. This decrease in common gunpowder is due to dynamite being preferred for blasting purposes, and the decrease in sporting gunpowder is owing to special imports during the previous year by one of the co-operative societies. The receipts from liquors are drawn from two sources—potable spirits and other liquors. Compared with the previous year the returns show an increase of Rs. 40,582 in the net receipts under potable spirits and a decrease of Rs. 17,555 in the net receipts under other liquors, that is, a total net increase of Rs. 23,027. This increase is attributable to fluctuations in trade and requires no special mention. The total importation of potable spirits during the year 1892-93 exceeded that of the previous year by 7,102·3 proof gallons, or 3·5 per cent., being 208,653 gallons against 201,550. The average strength of the spirit was 9·7 per cent. under proof against 9·4 per cent. in the previous year. To the total imports of potable spirits, brandy contributed 43·2 per cent., whisky 49·1, gin, old tom and hollands 6·3 and rum 1·4 against 45·5, 45·8, 7·2 and 1·5, respectively, in the previous year. In over-proof spirits there was an increase in brandy which would appear to be due to the decrease in under-proof brandy; and a decrease in whisky due to the increase in under-proof whisky. The general decrease in the importation of over-proof spirits (except brandy) and the increase in that of under-proof spirits (except brandy and hollands) was apparently due to the gradual effect of the amended Tariff Act of 1887. In under-proof spirits there was a decrease in brandy due, as stated above, to the increase in over-proof brandy, and a large increase in whisky due partly to the decrease in over-proof whisky and partly to the fact that whisky is now a more favourite drink than brandy. There was a decrease in hollands owing to the fact that in the previous year fewer consignments were bonded

and shipped to Goa than in the previous year, the bulk of the consignments being transhipped. The imports of spirits of wine, or more correctly rectified spirits, were 40,383·9 proof gallons against 35,935·4 in the previous year—an increase of 4,448·5 proof gallons. Since besides in medicinal preparations large quantities of spirits of wine mixed with water are drunk as an intoxicant, spirits of wine might be classed as potable spirits. If this were done, the total combined imports of potable spirits and spirits of wine would be 249,036·6 proof gallons against 237,485·8 proof gallons in the previous year—an increase of 11,550·8 proof gallons or 4·9 per cent. The quantity of these spirits passed for home consumption during the year under report was 258,229 liquid gallons against 240,769 in the preceding year—an increase of 17,460 gallons or 7·3 per cent. The 249,036·6 proof gallons of imported spirits at Rs. 6 the proof gallon yielded Rs. 14,94,219-9-7. Under the Act previously in force, duty would have been charged not on 249,036·6 proof gallons but on 277,606 gallons, namely, on 199,726·6 liquid gallons of under-proof spirit and on 77,879·4 proof gallons of over-proof spirit. At the rate of Rs. 4 per liquid gallon, the duty would have amounted to Rs. 11,10,424 and at Rs. 6 per liquid gallon to Rs. 16,65,636. The amended system of charging duty made the revenue more by Rs. 3,83,795-9-7 than it would have been if Rs. 4 per liquid gallon had been charged, and less by Rs. 1,71,416-6-5 than it would have been had a duty of Rs. 6 per liquid gallon been levied. The import of perfumed spirits during the year aggregated 6,962·1 Imperial gallons. Of this amount 6,532·7 Imperial gallons or 93·8 per cent. were imported in bottles containing four ounces and under. The gross receipts from petroleum rose from Rs. 3,94,244 to Rs. 4,65,566-10-6, showing an increase of Rs. 71,322-10-6. This increase was due to larger imports and consumption, probably mainly the result of growing cheapness. The importations of kerosine oil represented a total of 15,085,408 Imperial gallons against 12,965,680 Imperial gallons in 1891-92. This increase of 2,119,728 Imperial gallons was due to the growing demand for the oil owing to its cheapness. The large increase in the use of petroleum was due to its cheapness and brilliancy. Batoum oil continued steadily to under-sell American petroleum. During the year under review nearly four-fifths of the supply came from Batoum. Arrangements commenced in the previous year were continued during the year under report for the import of Batoum oil in bulk, the rules for the importation, storage, &c., of which were sanctioned by Government. Two consignments of petroleum were brought into the harbour during the year under report and manifested to be carried in the same bottom to Verával. One of these was allowed to be carried in the same bottom to that port free of duty. The Collector of Bombay refused to test the other until the duty had been paid and some other conditions satisfied. This was done and the oil was then allowed to be re-exported. The total amount of drawback paid during the year was Rs. 6,588 against Rs. 7,698 in the previous year,—a decrease of Rs. 1,110. The decrease was principally under the head kerosine oil. The heads arms and ammunition and liquors show an increase of Rs. 202 and Rs. 2,475, respectively.

Receipts from export duty.

The gross receipts on account of export duty were Rs. 2,30,686 against Rs, 1,79,100 in 1891-92, that is, an increase of Rs. 51,586. This increase was due partly to larger exports of rice to Muskat, Mozambique, Zanzibar, Aden and Ceylon, and partly to the levy of duty on shipments of rice to the Portuguese Indian ports in consequence of the termination of the Anglo-Portuguese Treaty in the last quarter of the previous year. Under the Customs union rice had been exported free to Portuguese India. Since the termination of the Treaty it has been subject to the same duty as if shipped to Indian foreign ports. Rice is the only article on which export duty is charged.

Total Imperial receipts.

Compared with the previous year the net realizations under the head "Imperial" show an increase of Rs. 1,35,903-10-10. The total net realizations under this head for the 11 years given below show that since 1882-83, when the duty was removed from most articles of import, receipts have more than doubled.

	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross	12,83,923	13,41,233	13,83,542	14,40,680	15,15,356	18,59,653	21,86,870	23,59,900	24,40,415	24,40,642	25,95,431
Net	11,32,205	13,27,8[illegible]6	13,79,511	14,28,539	15,04,230	18,23,629	21,41,966	22,94,806	24,53,224	23,03,919	25,28,822

Provincial receipts.

Under the head Provincial receipts show a net total of Rs. 35,169 or Rs. 211 more than in the previous year:—

Receipts.	1891-92.	1892-93.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Gross	35,508	35,251	...	257
Deduct—				
Refunds	550	82	...	468
Net ...	34,958	35,169	211	...

Of 12 items of Provincial gross receipt, 5 fell by Rs. 7,382 and 7 rose by Rs. 7,126. The net decrease was therefore Rs. 256. The principal items of decrease fell under tran-

shipment fees, commission at 5 per cent. on the Little Basses and Minicoy Light dues, and balance of extra work fees.

The working expenditure of the department amounted to Rs. 3,62,916 as against Rs. 3,47,051, a net increase of Rs. 15,865. Changes in the pay of the establishment accounted for an increase of Rs. 12,740, while miscellaneous expenditure showed a decrease of Rs. 1,785, due to larger amounts spent on dead stock in the previous year. Expenditure.

The division of the common customs receipts for the tenth, eleventh and twelfth years of the Anglo-Portuguese Treaty was finally completed during the year. The amount fixed on as due to the Portuguese Government was Rs. 3,72,439. A further sum of Rs. 39,847 was awarded to the Portuguese Government on account of duty on goods re-exported by land from British India to Daman during the 12 years' currency of the Treaty. The examining staff made 463 amendments in import documents, resulting in the addition of about a lákh and a quarter and the deduction of a little over half a lákh to and from declared values. Most of these corrections referred to free goods and were therefore solely of statistical importance. The financial result of corrections relating to dutiable articles was an increase of Rs. 466 in duty recovered. The amendments in export documents of all kinds numbered 596 and involved additions of over a lákh and deductions of a little over a lákh to and from the declared values. The alterations in dutiable entries resulted in the recovery of Rs. 200 as additional duty. Except under liquor, the total increased revenue secured by dutiable amendments in import and export documents amounted to Rs. 666. There were 4,369 consignments of liquor or 396 less than in the previous year imported and received in the Gauging Department. They comprised 9,198 items, of which 5,631 were gauged and 3,567 examined. The number of items tested by the hydrometer was 3,749. In 31 cases, amendments were allowed with the result that Rs. 339 were secured as additional duty. The testing of imported spirits by distillation instead of by the hydrometer resulted in an increase to the revenue of Rs. 17,113-12-10. The net value of the goods bonded during the year was Rs. 3,36,329 against Rs. 3,82,722 in the previous year, showing a decrease of Rs. 46,393 in value accompanied by a decrease of Rs. 26,271 in duty. This decrease was mainly due to the direct clearance of goods for home consumption, without being warehoused by importers who were under the impression that the duty on spirits was about to be raised. The value and duty on goods exported from bond under Sections 105, 106, 111 and 112 of Act VIII of 1878 decreased by Rs. 21,021 and Rs. 9,025, respectively. The value and duty on goods lost or destroyed were Rs. 862 and Rs. 1,055, showing a decrease of Rs. 1,637 and Rs. 530 respectively. The total duty on goods in bond at the beginning of the year, together with the duty on goods bonded during the year, aggregated Rs. 3,68,226; while the duty on goods removed and lost during the year, together with the balance in hand at the end of the year, was Rs. 3,70,224; the difference of Rs. 1,998 was due to the changes in the tariff which necessitated liqueurs, spirits and perfumed spirits being passed at the enhanced rates of Rs. 6 and Rs. 8 instead of at the lower rates of Rs. 5 and Rs. 7½, at which they were admitted into the warehouse. The number of cargo-boat licenses issued under Section 79 of Act VIII of 1878 was 755 against 813 in the previous year. The average tonnage of a cargo-boat was 32·64 in 1892-93 against 29·96 in 1891-92. The total number of cases adjudicated under the Sea Customs Act was 863 against 431 reported in the previous year, showing an increase of 432. Of the 863 cases 361 were exclusively decided under the Customs Act as amended by the Merchandise Marks Act. Of the remaining 502 cases—a number 202 in excess of the previous year—25 were finally dealt with by the Collector, 126 by the First Assistant Collector of Land Revenue, Customs and Opium, and 351 by the First Assistant Collector in charge Prince's Dock. Besides these, 57 other cases were tried, out of which 10 were dismissed for want of proof, and in 35 the parties concerned were warned, while in the remaining 12 cases amendment fees were levied. In 4 of these cases appeals were made to the Collector against the order passed by the First Assistant Collector in charge Prince's Dock. In all these four appeals the original decisions were confirmed. There were no appeals against the orders either of the Collector or the First Assistant Collector. Miscellaneous.

The Port of Karáchi.

The subjoined table gives the Imperial Customs receipts in comparison with those of 1891-92:— Imperial receipts.

		1891-92.	1892-93.	Increase or Decrease.
Import duties	Rs.	7,55,474	6,94,145	—61,329
Export duties	"	83,916	82,596	— 1,320
Extra hours' fees	"	2,810	3,212	+ 402
Total ...	Rs.	8,42,200	7,79,953	—62,247
Deduct—Refunds and Drawbacks ...	"	30,729	16,082	—14,647
Net Revenue ...	Rs.	8,11,471	7,63,871	—47,600

The decrease in import duty was due to the falling off of duty on spirits owing to reference being given to country distilled spirits on account of their cheapness, also to iminished imports of petroleum.

The net provincial receipts were Rs. 4,902 against Rs. 4,662 in the previous year. Provincial receipts.

Expenditure fell from Rs. 73,738 to Rs. 63,808. Expenditure.

LAND CUSTOMS.

Organization.

The organization of the Land Customs lines on the Goa and Daman frontiers occupied a great portion of the time and attention of the Collector during the year under report. A new customs post was opened during the year at Majálli in the Kárwár Taluka, and the Custom Houses open on both frontiers at the end of the year were as follows:—

Goa Frontier—	Daman Frontier—
Bánda.	Kunta.
Dodámárg.	Chala.
Talewádi.	Kolak.
Castle Rock (Railway Station).	Pathárpunja.
Digi.	Kalai.
Majálli.	

Collections.

The collections made at these stations (exclusive of duty on salt) and including the fixed chouth paid by the Dharampor State in lieu of the share in the transit duties belonging to the British Government were as under:—

Items.	1891-92.	1892-93.	Increase.	Decrease.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Import	418 8 3	406 0 10	.....	12 7 5
Export	4,280 15 1	33,212 12 6	28,931 13 5	.....
Government share of Land Customs and transit duties levied in the foreign territory of Dharampor ...	9,000 0 0	9,000 0 0	.....	.....
Fines and confiscations	.....	92 12 2	92 12 2	.....
Miscellaneous	.....	11 2 2	11 2 2	.....
Total ...	13,699 7 4	42,722 11 8	29,035 11 9	12 7 5
		Deduct Decrease ...	12 7 5	
		Net Increase ...	29,023 4 4	

The increase of Rs. 28,932 in export duty was due to collections having been made during the whole year, while the figures of the previous year represented the collections of 2½ months only. The amount would have been much greater were it not for the concession made by Government under which rice exported to Goa territory by other than the authorised routes was allowed to pass free of duty.

Offences.

The number and results of cases adjudicated under the Land Customs Act during the year under report were as follows:—

	Number of cases adjudicated.	Number of cases dismissed.	Number of cases in which Penalties were awarded.	Estimated value of property confiscated.	Amount realized by sale of confiscated property.
				Rs. a. p.	Rs. a. p.
Goa Frontier...	66	4	62	134 12 8	98 2 3
Daman Frontier	1	.....	1	0 12 0	0 12 0
Total ...	67	4	63	135 8 8	98 14 3

On the Goa frontier there was one case of passing goods without application for permission, and the rest were cases of carrying goods by unauthorized roads. The one case on the Daman frontier was of passing goods without an application.

Opium.

Scales and rates of duty.

No change was made during the year under report in the number or location of the scales for the weighment of opium or in the rates of duty. Opium, intended for export by sea from the Port of Bombay to China and other foreign countries, was taxed at Rs. 600 per chest, while the tax on opium imported for local consumption in the Bombay Presidency remained at Rs. 700 per chest. The rates levied at the scales at Ajmere were, as usual, Rs. 25 per chest higher in each case.

Imports and exports.

The following table shows the number of opium chests imported from Málwa and Rájputána into Bombay, the amount of pass duty realized and the number of chests exported to China and otherwise disposed of in the year 1892-93, as compared with corresponding figures for the two previous years:—

Years.	Number of Chests imported into Bombay.	Amount of pass-fee actually realized and brought to account.	Number of Chests exported to China.	Number of Chests brought for home consumption.	Number of Chests otherwise disposed of.	Total number of Chests disposed of.
		Rs.				
1890-91	30,079½	1,80,69,450	28,415	1,503½	70	29,988½
1891-92	30,848½	1,85,37,250	29,122	1,572	68½	30,762½
1892-93	26,655½	1,60,11,600	25,243½	1,459	69	26,771½

The number of chests imported into Bombay during the year was less than in the preceding year by 4,193. The exports to China decreased by 3,878½ chests. There were 10 chests exported to African ports, 57 to Cochin and Allepey and two to Singápur. Fluctuations in imports and exports.

The average prices of opium in the Bombay market during the year under report were Rs. 1,155 per chest for new opium, and Rs. 1,203 per chest for old opium, as against Rs. 1,116 and Rs. 1,183 per chest of new and old opium, respectively, in the preceding year. Prices.

Opium was issued from the Government depôts at the rate of Rs. 9-12-0 per lb. up to the 14th February 1893 in the Presidency proper after which date it was reduced to Rs. 9-8-0 in all districts, except Ahmedábád, Kaira, the Panch Maháls, Broach and Surat, and the depôts at Rájkot, Pálanpur, Sádra and Baroda Cantonment where it was raised to Rs. 10. The rate in Sind and Aden remained the same as in the preceding year, *viz.*, Rs. 10. The issues amounted to 52,990 lbs., of which 30,821 lbs. were issued to Native Chiefs entitled to full or partial remission of duty, amounting to Rs. 79,954, and the balance was issued for consumption within British districts. The Native Chiefs and licensed vendors of British districts, who require opium in large quantities, and are authorized to obtain it in quantities of not less than one-half chest, either from the scales direct on payment of duty, or by purchase in the Bombay market, bought 912½ chests, equal to 124,201 lbs. in the Bombay market, and 183 chests, equal to 24,908 lbs. at the scales in Málwa. Of this quantity 313 chests, equal to 42,603 lbs. were obtained by Native Chiefs entitled to full or partial remission of duty, and refunds of duty amounting to Rs. 80,057 were either made to them before the close of the year or will shortly be made to them. The Native States of Pálanpur, Mahi Kántha, Rewa Kántha, Cambay and Baroda, which are entitled to full remission of duty, obtained from the scales in Málwa, under duty-free passes, 146½ chests during the year. The quantities of opium, which actually passed into consumption in the year in each British district, are shown in the following table, which also exhibits the licit sales of the preceding two years and the average of the three years ending 1889-90 :— Consumption in the Presidency.

Names of Districts.	Annual average of three years ending 1889-90.	1890-91.	1891-92.	1892-93.	Increase or decrease as compared with 1891-92.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Bombay	19,827	19,766	19,854	18,223	—1,631
Ahmedábád...	27,857	19,100	18,374	15,104	—3,270
Kaira	14,667	11,398	12,818	10,104	—2,714
Panch Maháls	2,572	2,848	3,197	3,341	+144
Broach	11,240	7,704	8,693	8,763	+69
Surat	4,028	3,140	3,250	3,102	—148
Thána	1,855	1,385	1,332	1,062	—270
Nasik	5,430	5,466	5,331	5,324	—7
Khándesh	12,544	14,716	15,159	13,067	—2,092
Ahmednagar	10,318	10,040	10,045	9,392	—653
Poona	9,028	8,903	9,003	8,996	—7
Sholápur	6,939	6,870	6,961	6,467	—494
Sátára	4,504	4,388	4,397	3,234	—1,163
Belgaum	688	754	724	570	—154
Dhárwár	716	705	696	598	—98
Bijápur	420	349	367	489	+122
Kánara	138	137	138	134	—4
Ratnágiri	235	271	271	272	+1
Kolába	664	651	637	729	+92
Karachi	4,294	4,569	4,904	4,427	—477
Hyderábád...	10,185	10,040	10,926	10,070	—856
Shikárpur	2,777	2,915	3,413	3,543	+130
Aden	204	144	148	139	—9
Total ...	150,630	136,259	140,638	127,149	—13,489

The total licit sales of opium in the British districts decreased, on the whole, during the year by 13,489 lbs. as compared with the preceding year. The decrease was chiefly in Ahmedábád, Kaira, Bombay, Sátára, Khándesh and Hyderábád, but in the two last mentioned districts the sales were nearly equal to the average of the three years ending 1889-90. The Bijápur District, which consumes very little opium, shows an increase of 122 lbs. The increases and decreases in the other districts, being small, do not call for special remarks. Fluctuations.

During the year under report the condition in the license penalizing the farmers for sales below a fixed standard was withdrawn, the sale of opium for consumption on the Introduction of new system.

premises was prohibited and the maximum quantity allowed to be sold to one person at one time without a special pass was reduced from ten to two tolas. The farmers instead of paying any license fees were required to maintain additional establishments for the supervision of their retailers and for the prevention of smuggling. This altered system was in force in all districts, except Bombay where the term, for which the farm was held, had not expired, and in the five southern districts, where the consumption of opium being small, the old license fee system was retained.

Consumption in Native States.

In the Native States of the Presidency, the licit sales amounted to 154,806 lbs., of which 59,503 lbs. were sold in Baroda Territory, 8,912 lbs. in Cutch, 50,473 lbs. in Káthiáwár, and 31,611 lbs. in other States in Gujarát. The opium required by the Native States in the Konkan, Deccan and the Southern Marátha Country amounted to 4,307 lbs., and was obtained by the Chiefs from the nearest British depôt, or from the Collector of Customs and Opium, Bombay.

Shops.

The number of shops in the Presidency, licensed for the sale of opium was the same as in the previous year. Government having prohibited in the year under report the sale of chandul, madat and other preparations of opium, no licenses for the vend thereof were issued except in Bombay where 17 shops were allowed pending the expiry of the term of the farm.

Revenue.

As shown above, the total number of chests imported into Bombay, on payment of duty at the scales, was 26,655½ chests, while the duty realizations were Rs. 1,60,11,600. Some of the chests were imported for consumption within the Presidency, on payment of duty at Rs. 700 per chest, and some, which were originally imported for exportation to China, on payment of duty at Rs. 600 per chest, were subsequently cleared for home consumption, after payment of the differential duty, amounting in the aggregate to Rs. 1,27,343. Deducting the amount of duty realized on account of opium exported from Bombay to ports in the Madras Presidency, the net duty realizations under the head "Excise" on account of opium imported for consumption within the Presidency, were Rs. 10,21,043, while the realizations under the Imperial head "Opium," on account of exports to China and other foreign countries, beyond the Continent of India, were Rs. 1,50,83,700. With the addition of the fees levied on account of the transhipment of opium chests in the Bombay harbour, and miscellaneous receipts, the total Imperial revenue from opium for the Presidency, for the year under report, were Rs. 1,51,30,460 as against Rs. 1,75,80,370 in the preceding year, a decrease of Rs. 24,49,910. Similarly, including license fees and other miscellaneous receipts, and deducting refunds made to the Native Chiefs on account of whole or partial remission of duty, as stated above, the net excise revenue from opium for the Presidency, for the year under review, was Rs. 9,27,333 as against Rs. 10,51,047 in the preceding year. The decrease in the Imperial revenue was due to the falling off in exports to China.

Expenditure.

The expenditure on account of a portion of the opium establishment employed in Bombay, and that employed at the Ahmedábád Agency, which is debited to Imperial Services under the head "Opium" amounted to Rs. 25,955, as against Rs. 25,823 in the previous year. The provincial expenditure of the Opium Department is included in that of the A'bkári Department and cannot be accurately distinguished but may be estimated approximately, as in the previous year, at Rs. 30,000.

Salt.

Presidency Proper.

General.

A Mixed Commission, consisting of two British and three Portuguese members, was appointed in the year under report under Article XVI of the Anglo-Portuguese Treaty of the 26th December 1878 to assess the compensation payable to owners of salt-works in Portuguese territory which had been farmed to the British agents under clause (*b*) of Article XII of the Treaty. The task of assessing the damages proved very laborious, and the sittings lasted over six months. The total amount claimed was Rs. 6,28,303, while that awarded was Rs. 1,31,158 or less than one-fourth of the claims.

Strength of the Department.

The changes in the subordinate establishment were as follows:—(*a*) The guarding establishments at the Mátunga and Ghodbandar salt-works were increased by 3 and 9 peons respectively, paid for by the shilotris: (*b*) an establishment of two peons for each of the new fish-curing yards at Mazali, Kodar and Kasarkod in the Kánara District was sanctioned: (*c*) as it was found practically impossible to adhere to the scale of establishments provisionally sanctioned for the Goa and Daman frontiers, revised proposals which have since been sanctioned by the Secretary of State were made by the Commissioner of Customs, Salt, Opium and A'bkári. The strength of the establishments according to these proposals are shown below:—

	Goa Frontier.	Daman Frontier.
Inspectors	8	2
Sub-Inspector	1	...
Sar-kárkúns	4	1
Clerks and Kárkúns...	46	8
Coast Guard Inspector	1	...
Tindal and Lascars	10	...
Petty officers	82	19
Sepoys	603	241
	815	271

The result of these changes was that the sanctioned strength of the whole establishment of the department (including the proposals for the Daman and Goa frontiers mentioned above), as it stood on the 31st March 1893, was as under :—

Collector	1
Deputy Collector	1
Assistant Collectors	11
Supervisor, Uran Distilleries	1
Assistant do. do.	1
Superintendents of Salt Depôts	6
Coast Guard Inspectors	15
Inspectors on the frontiers and at other places	30
Sar-kárkúns, including Special Officer, Cambay, and Customs Manager, Castle Rock	35
Preventive Officers, including that at Chendni Bandar ...	9
Darogas	8
English Writers, including Gaugers	72
Kárkúns, including Sázedárs and Bandar Kárkúns	617
Risáldárs	3
Savárs...	110
Petty officers	444
Sepoys	4,411
Khalásis, watermen and menials	458
Total ...	6,233

General features of administration.

The question of equalizing the burdens on owners of new and old salt-works by the substitution of a royalty on the quantity of salt produced in each work for the ground rents now levied was still under consideration. A mass of information regarding the tenures of the different salt-works was collected from the officers in charge of the ranges, and definite proposals were shortly to be submitted. There were at the beginning of the year only two fish-curing yards on the coast of the Bombay Presidency, at Vengorla and Gangawali, and licenses were freely issued for the removal of salt-earth for fish-curing. It was determined to open new yards wherever there might be a prospect of their proving successful, and to prohibit the removal of salt-earth for fish-curing within a certain radius of each yard. The object of this policy was not so much the protection of the revenue as to provide a wholesome article of food instead of the badly cured unwholesome article produced by the use of salt-earth. In pursuance of this policy three new yards were opened on the Kánara coast at Majali, Kasarkod and Kodar. The first of these proved a great success, but the other two were opened too late in the season to have a chance of proving their utility. There was a considerable increase in the business done at the two old yards, and on the whole the results of the season's operations were encouraging. Several of the platform machines in use in the department having become worn out and more machines being required for use on the new Customs platform at Castle Rock, 22 Avery's machines were indented for in the year under report. The conditions of the conventions with the Cambay and Janjira States were faithfully observed, and no complaints or difficulties arose during the year.

Sources of supply.

There was no change in the sources from which the supply of salt was obtained.

Cost price of salt at the works.

The cost price of the salt produced at the Government works at Khárághoda and Bulsár remained unaltered. At the works in the Northern and Middle Konkan the maximum, minimum and average prices were the same as in the previous year. But at Shiroda the average price rose from 3 annas 4 pies to 3 annas 9 pies and at Sánikatta from 2 annas 4 pies to 3 annas per maund. This rise in price was due to the restriction now placed on the exportation of Goa salt by sea owing to the operation of the Transport of Salt Act, and the consequent greater demand for Shiroda and Sánikatta salt.

The following table shows the maximum, minimum and average prices at the Northern and Middle Konkan, Shiroda and Sánikatta salt-works :—

	Northern and Middle Konkan.		Shiroda.		Sánikatta.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Maximum per maund ...	0 6 0	0 6 0	0 6 0	0 8 0	0 4 0	0 4 0
Minimum do. ...	0 0 1	0 0 1	0 0 3	0 1 0	0 0 6	0 2 0
Average do. ...	0 1 11	0 1 11	0 2 4	0 3 9	0 2 4	0 3 0

Number of works open and in operation in British territory.

From the subjoined table it will be seen that the number of salt-works open and in operation during the year under report was less by 62 than in the previous year :—

		Salt-works open.		Decrease.
		1891-92.	1892-93.	
Government ...	Runn Works ...	2	2	...
	Bulsár Works ...	1	1	...
	Umbargáon ...	1	1	...
Private or leased ...	Bassein ...	28	28	...
	Ghodbandar ...	45	45	...
	Trombay ...	23	23	...
	Matunga ...	26	26	...
	Uran ...	88	88	...
	Karanja ...	26	26	...
	Panvel ...	19	19	...
	Pen ...	32	32	...
	Shireda ...	27	27	...
	Sánikatta ...	128	66	62
	Total ...	446	384	62

The whole decrease of 62 in the number of works worked occurred at Sanikatta, and was due to the fact that owing to the introduction of the open-air storage system the warehouses (kothárs) in which the salt was formerly stored were pulled down. After this was done it was found that the space available for open-air storage was insufficient for the salt produced and some of the maliks who had large stocks on hand could not manufacture new salt for want of storage room.

Production and disposal of salt in British and Portuguese territory.

The table given below shows (*a*) the total production, (*b*) loss and wastage, (*c*) removals and (*d*) balance of salt in stock at the end of the year for each of the last five years.

Years.	Stock in hand on 1st April, including Agencies and Depots for Baragra Salt.	Manufactured and brought to account during the year.	Total Stock.	Loss and Wastage.	Percentage of Loss and Wastage to Total Stock.	Removal during the year. Full Duty.	Duty-free or nominal duty.	Total.	Balance on 31st March.
1892-93.	Ind. Mds. s. t.	Ind. Mds. s. t.	Ind. Mds. s. t.	Ind. Mds. s. t.		Ind. Mds. s. t.	Ind. Mds. s. t.	Ind. Mds. s. t.	Ind. Mds. s. t.
a.—Barágra	17,19,865 39 0	23,41,329 8 0	40,61,195 7 0	87,773 25 0	2·01	16,85,667 0 0	1,031 20 0	16,86,698 20 0	22,86,723 2 0
b.—Bulsár	1,65,036 0 0	3,18,097 0 0	4,83,133 0 0	1,48,615 0 0	3·78	3,21,700 0 0	.....	3,21,700 0 0	12,728 0 0
c.—Rest of Presidency.	20,23,929 10 40	64,96,856 33 3	85,20,786 3 43	8,83,174 4 0	10·36	61,94,155 19 20	5,13,277 39 60	67,07,433 18 0	9,30,178 21 43
Total ...	39,08,831 9 40	91,56,283 1 3	1,30,65,114 10 43	11,19,562 29 0	8·56	82,01,573 19 20	5,14,309 18 60	87,15,881 38 0	32,29,659 23 43
1891-92.									
a.—Barágra	14,85,204 9 0	19,77,133 0 0	34,62,336 9 0	71,294 30 0	2·05	16,60,644 0 0	1,531 20 0	16,71,175 20 0	17,10,865 39 0
b.—Bulsár	1,09,014 0 0	4,03,105 0 0	5,12,119 0 0	11,899 0 0	2·31	3,35,214 0 0	.....	3,35,214 0 0	1,65,036 0 0
c.—Rest of Presidency.	23,15,912 25 56	78,92,324 19 22	1,02,08,237 4 78	11,57,730 11 16	11·34	64,07,604 7 40	6,18,923 15 62	70,26,527 23 22	20,23,929 10 40
Total ...	39,10,130 34 56	1,02,72,561 19 22	1,41,82,692 13 78	12,40,944 1 16	8·74	84,12,462 7 40	6,20,454 35 62	90,32,917 3 22	39,08,831 9 40
d.—Portuguese Territory	2,76,784 2 0	4,88,272 35 40	7,64,056 37 40	3,75,791 19 40	3·77	2,43,919 3 0	1,44,352 16 0	3,88,265 16 0	.....
Grand Total ...	41,85,914 36 56	1,07,60,834 14 62	1,49,46,749 11 38	16,16,735 20 56	8·49	86,56,375 10 40	7,64,807 10 62	94,21,182 21 22	39,08,831 9 40
1890-91.									
a.—Barágra	16,21,324 9 0	15,53,935 38 0	31,75,260 7 0	63,894 18 0	2·02	16,05,130 0 0	1,031 20 0	16,06,161 20 0	14,85,204 9 0
b.—Bulsár	2,29,517 0 0	2,97,882 0 0	5,27,349 0 0	1,01,714 0 0	19·28	3,16,621 0 0	.....	3,16,621 0 0	1,09,014 0 0
c.—Rest of Presidency.	30,00,153 31 70	65,98,693 26 70	95,99,147 18 60	1,02,417 27 70	10·44	56,80,781 15 40	6,00,035 29 54	62,80,817 5 14	23,15,912 25 56
Total ...	48,51,295 0 70	84,50,461 24 70	1,33,01,756 25 60	11,68,026 5 70	8·93	76,02,532 15 40	6,01,067 9 54	82,03,599 25 14	39,10,130 34 56
d.—Portuguese Territory	2,24,927 0 31	4,94,274 7 0	7,19,201 7 31	28,618 26 31	3·98	2,70,168 35 0	1,44,334 24 0	4,14,798 19 0	2,75,784 2 0
Grand Total ...	50,76,222 1 21	89,44,735 31 70	1,40,20,957 33 11	12,16,644 32 21	8·67	78,72,996 10 40	7,45,401 33 54	86,18,398 4 14	41,85,914 36 56
1889-90.									
a.—Barágra	18,54,342 19 0	14,12,816 2 0	32,67,158 21 0	24,401 32 0	·07	16,20,401 0 0	1,031 20 0	16,21,432 20 0	16,21,324 9 0
b.—Bulsár	1,91,390 0 0	3,61,801 0 0	5,53,191 0 0	20,829 0 0	3·76	3,02,845 0 0	.....	3,02,845 0 0	2,29,517 0 0
c.—Rest of Presidency.	13,59,138 3 0	81,99,175 36 70	95,52,313 39 70	6,19,650 17 40	6·48	53,79,859 5 40	5,53,350 25 0	59,32,209 30 40	30,00,153 31 70
Total ...	34,04,870 22 0	99,67,792 38 70	1,33,72,663 20 70	6,64,881 9 40	4·97	73,03,105 5 40	5,53,382 5 0	78,56,487 10 40	48,51,295 0 70
d.—Portuguese Territory	1,06,422 27 40	5,56,575 4 40	6,61,097 32 0	21,872 6 49	3·21	2,49,563 19 0	1,69,135 6 0	4,18,698 25 0	2,24,927 0 31
Grand Total ...	35,11,293 9 40	1,05,26,369 3 30	1,40,37,661 12 70	6,86,253 16 9	4·88	75,52,668 24 40	7,22,517 11 0	82,75,185 35 40	50,76,222 1 21
1888-89.									
a.—Barágra	11,93,425 18 0	22,61,503 1 0	34,54,928 19 0	89,453 20 0	2·58	15,10,101 0 0	1,031 20 0	15,11,132 20 0	18,54,342 19 0
b.—Bulsár	1,11,313 0 0	4,11,513 0 0	5,22,826 0 0	14,422 0 0	2·75	3,17,064 0 0	.....	3,17,064 0 0	1,91,390 0 0
c.—Rest of Presidency.	4,26,145 10 47	76,75,317 18 40	81,01,462 29 7	6,34,103 37 47	7·82	55,18,268 13 40	5,92,982 15 0	61,11,320 28 40	13,59,138 3 0
Total ...	17,32,903 28 47	103,49,363 19 40	1,20,82,267 8 7	7,37,979 17 47	6·107	73,45,433 13 40	5,93,983 35 0	79,39,517 8 40	34,04,870 22 0
d.—Portuguese Territory	1,67,649 1 40	3,37,252 6 40	5,04,901 8 0	29,775 31 40	5·90	1,87,062 12 0	1,31,640 17 0	3,68,702 29 0	1,06,422 27 40
Grand Total ...	19,00,552 30 7	1,06,80,615 26 0	1,25,87,168 16 7	7,67,755 9 7	6·25	75,32,495 25 40	7,75,624 12 0	83,08,119 37 40	35,11,293 9 40

Opening balances, season's produce and closing balances.

The accounts of Báragra salt opened with a balance of maunds 17,19,865-39-0. The quantity manufactured and brought to account during the year amounted to maunds 23,41,329-8-0 or maunds 3,64,197-8-0 more than in the previous year. The sales exceeded those of the previous year by maunds 15,513, leaving a balance of maunds 22,86,733-2-0. The opening balance at Dhárásna was maunds 1,65,036. The quantity manufactured was maunds 3,18,097 or maunds 85,008 less than that of the previous year. The decrease was due to the early burst of the monsoon in June 1892, which stopped the manufacture and destroyed a large quantity of salt already formed in the pans. The sales during the year were 3,21,760 maunds, or maunds 13,454 less than those of the previous year, leaving a balance at the close of the year of maunds 12,758. The sales would have been much larger but for a heavy flood which occurred on the 4th September 1892 at Dhárásna and destroyed 87,300 maunds of salt. The remaining stock was insufficient to meet the demands and issues were limited to salt required for local consumption. The accounts of the rest of the Presidency opened with a balance of maunds 20,23,929-10-40. The produce of the year was less than in the previous year by maunds 13,95,467-26-19 and below that of 1890-91 by maunds 1,01,836-33-67. The decrease in production, which was common to all the tálukas, was attributable to the early burst of the monsoon and the unfavourable nature of the season. The sales of the year amounted to maunds 67,07,433-18-0, and were fairly satisfactory, though they were less by maunds 3,19,094-5-22 than in the previous year, which had been marked by unprecedentedly large demands. They showed an excess of maunds 4,04,292 over the average of the last five years. The balance left at the close of the year was maunds 9,30,178-21-43, the smallest balance recorded during the past seven years.

Loss and Wastage.

The total quantity of salt written off as loss and wastage amounted to maunds 11,19,562-29-0, showing a decrease of maunds 1,21,381-12-16 as compared with the quantity written off under this head in the previous year. The loss and wastage would have been further reduced but for the floods at Dhárásna which, as stated above, destroyed 87,300 maunds of salt. The improvement was attributable partly to the reversion to the old conical heap system which was better understood and more easily worked by the kárkúns than the rectangular heap system; and partly to greater care in estimating the contents of the heaps and keeping stock accounts. The wastage recorded in Barágra salt was maunds 87,773-25-0 or maunds 16,478-35-0 more than that recorded in the previous year. This was chiefly due to the fact that much of the salt produced in 1892 was friable and more than usually liable to wastage in the open stores, while the rainfall of the year was unusually heavy. The quantity written off at Dhárásna was maunds 1,48,615 or maunds 1,36,746 more than in the previous year. Owing to heavy floods on the 4th September 1892, maunds 87,300 were washed away, and the over-estimation of maunds 61,315 was stated to be due to the imperfect working of the rectangular heap system.

Distribution of Barágra salt.

The manner in which issues of Barágra salt were distributed during 1892-93 and in the previous year is shown below :—

	1891-92.					1892-93.				
	For local consumption.	For consignment by Railway to Central Provinces.	For consignment by Railway to North-West Provinces.	For export to Central India, including Málwa and Rájputána.	Total.	For local consumption.	For consignment by Railway to Central Provinces.	For consignment by Railway to North-West Provinces.	For export to Central India, including Málwa and Rájputána.	Total.
	Mds. s.	Mds.	Mds.	Mds.	Mds. s.	Mds. s.	Mds.	Mds.	Mds.	Mds. s.
Khárághoda	64,373 20	4,65,381	3,20,934	2,76,361	11,27,049 20	55,676 20	4,54,167	3,41,226	3,91,403	11,42,472 20
Ahmedábád Depôt ...	1,13,722 0	.....	.....	22,122	1,35,844 0	1,08,679 0	...	.....	16,637	1,25,316 0
Agencies ..	3,50,531 0	.....	.....	57,751	4,08,282 0	3,62,593 0	3,081	.....	53,226	4,18,900 0
Total ...	5,28,626 20	4,65,381	3,20,934	3,56,234	16,71,175 20	5,26,948 20	4,57,248	3,41,226	3,61,266	16,86,688 20

The issues showed an increase of maunds 15,513 as compared with the previous year. The issues from the Main Stores, Khárághoda, to the North-West Provinces and Central India, showed an increase of maunds 20,292 and 15,042 respectively, while there was a decrease of maunds 8,697 and 11,214 in the removals for local consumption and to the Central Provinces respectively. The net result, however, was an increase of maunds 15,423 in issues from the main stores at Khárághoda as compared with the previous year. The issues at the Ahmedábád depôt showed a decrease of maunds 5,043 and 5,485 respectively in removals for local consumption and on account of exports to Central India, *i. e.* Málwa and Rájputána. The decrease, however, of 10,528 maunds in issues from the Ahmedábád depôt was counterbalanced by a corresponding increase (10,618 maunds) in removals from the agencies. A new agency was opened on the 21st February 1893 on the Godhra-Rutlam line at Limkheda, which is 25 miles from Godhra. The selling price of salt at Godhra and Limkheda was raised to Rs. 2-15-0 as against Rs. 2-13-6 at Ahmedábád. There was a decrease in the issues for the Ahmedábád and Kaira districts, the Mahi Kántha and Rewa Kántha Agencies, Cambay, Bombay and Poona of maunds 2,443, 247, 3,164, 2,895, 50, 161 and 6 respectively, and an increase of maunds 265, 2,976, 528, 3,300 and 219 in removals to Broach, the Panch

Maháls, Gáikwár's territory, and the Pálanpur and Káthiáwár Agencies as compared with the figures for the previous year. In no case however were the variations large. The following table shows the sales of Barágra salt since 1873-74 :—

Year.	For local consumption.	For export to Central Provinces.	For export to North-West Provinces.	For export to Central India and Rájputána and Malwa.	Total.
	Mds.	Mds.	Mds.	Mds.	Mds.
1873-74...	3,41,273	1,89,455	.....	79,364	6,10,092
1874-75...	3,90,056	2,53,335	.....	25,424	6,68,815
1875-76...	4,83,137	2,72,890	.....	49,172	8,05,199
1876-77...	4,61,520	3,17,475	.....	51,798	8,30,793
1877-78...	4,67,992	4,19,127	.....	89,237	9,76,356
1878-79...	4,71,448	4,82,370	25,410	1,19,635	10,98,863
1879-80...	3,80,888	5,39,280	1,12,770	3,13,481	13,46,419
1880-81...	3,62,603	4,03,611	59,220	2,29,884	10,55,318
1881-82...	4,77,934	34,232	.....	3,09,911	8,22,077
1882-83...	4,48,885	4,28,610	5,460	2,84,712	11,67,667
1883-84...	4,77,757	4,07,697	15,573	2,95,179	11,96,206
1884-85...	4,89,651	4,58,916	24,030	3,71,359	13,43,956
1885-86...	5,07,501	4,52,445	13,77,720	6,23,619	29,61,285
1886-87...	4,94,875	4,60,905	6,17,037	5,16,198	20,89,005
1887-88...	5,25,561	4,17,309	3,00,517	3,71,770	15,45,157
1888-89...	4,80,519	4,19,190	2,70,204	3,41,219	15,11,132
1889-90...	4,95,524	4,38,414	3,47,901	3,39,593	16,21,432
1890-91...	4,92,406	4,26,666	3,37,488	3,49,601	16,06,161
1891-92...	5,28,626½	4,65,581	3,20,934	3,56,234	16,71,175½
1892-93...	5,26,948½	4,57,248	3,41,226	3,61,266	16,86,688½

The sales during the year under report exceeded those of the previous year by maunds 15,513, and were the largest on record except those of 1885-86 and 1886-87, when the failure of the Sámbhar crop occasioned an abnormal demand for Barágra salt.

Distribution of sea salt.

The following comparative statement shows the quantities of salt which were removed for consumption within and without the Presidency from Gujarát, Konkan and Kánara works in British territory together with the distribution of the issues :—

From	For Export to									
	Central Provinces.		Central India.		Nizám's Territory.		Calcutta.		British Malabár.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Bulsár	...	960	...	...	...	...	...	...	...	...
Umbargaon	...	...	...	...	...	...	...	...	...	...
Bassein, Ghodbandar, Mátunga, Trombay, Uran, Karanja, Panvel and Pen	13,53,688	11,50,507	20,253	11,396	7,18,151	7,56,384	6,39,658	5,50,832	12,22,197	14,29,719
Shirsla	...	...	...	...	...	...	...	...	730	9,[illegible]
Sánikatta	...	...	...	...	...	...	...	...	11,157	11,859
Total ...	13,53,688	11,51,467	20,253	11,396	7,18,151	7,56,384	6,39,658	5,50,832	12,34,084	14,50,937

From	For Export to—*continued.*				For Local Consumption.					
	Foreign Malabár (Travancore and Cochin).		Mysore.		In Portuguese India.		Within the Presidency.		Total.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
Bulsár	...	...	...	...	10,371	...	3,35,214	3,26,[illegible]	3,45,585	3,21,760
Umbargaon	...	...	...	...	...	...	8,105	9,550	8,[illegible]	9,550
Bassein, Ghodbandar, Mátunga, Trombay, Uran, Karanja, Panvel and Pen	6,06,832	4,96,590	75,502	1,11,605	...	...	22,14,580	(a) 19,90,195	68,50,961	64,96,938
Shirsla	...	...	...	...	...	...	70,688	70,034	71,408	86,793
Sánikatta	...	...	396	290	...	...	54,424	1,08,465	95,987	1,16,554
Total ...	6,06,832	4,96,590	75,898	1,11,895	10,371	...	27,13,511	25,00,194	73,72,446	70,29,195

(a) Includes 14,182 maunds sold from Government stocks at Castle Rock.

There was a decrease of maunds 23,825 in the sales from the Bulsár salt-works due to the stock of salt having run so low in the beginning of February that sales had to be limited till the new crop was ready in March. Had it not been for the loss caused by floods in September 1892, the sales would have exceeded those of the previous year. There was also a decrease of 353,923 maunds in the sales from the salt works in the neighbourhood of Bombay. While the exports to the Nizám's territory, British Malabár and Mysore increased by 2,81,858 maunds, those to the Central Provinces, Central India, Calcutta, foreign

Malabár, and the Presidency fell off by 6,35,781 maunds. The improvement in the exports to British Malabár and Mysore was due to British salt being able to compute with Goa salt on favourable terms owing to the termination of the Portuguese treaty, while the decline in issues to foreign Malabár was due to the failure of the State contractor to carry out his engagements. The decrease in sales to the Central Provinces and the Presidency were probably due to ordinary fluctuations of trade, the markets being glutted by abnormally heavy removals in the previous year. The diminution in the exports to Calcutta, which are generally of refuse salt, were probably due to the small amount of that commodity available, owing to heavy removals last year.

Free issues of salt.

The issues of duty-free salt amounted to 16,687 maunds against 1,56,443 maunds in 1891-92. The details are given in the subjoined table :—

Issues.	1891-92.	1892-93.	Increase or decrease.
	Mds. s. t.	Mds. s. t.	Mds. s. t.
Under the terms of the Portuguese Treaty ...	1,33,927 15 0	.....	—1,33,927 15 0
Under the terms of the Janjira convention ...	9,936 15 62	8,166 39 20	—1,769 16 42
To replace salt lost at sea before final check ...	969 0 0	3,652 39 40	+2,683 39 40
For fish-curing yards in British territory ...	11,611 0 0	4,868 0 0	—6,743 0 0
Total ..	1,56,443 30 62	16,687 38 60	—1,39,756 32 2

The decrease of 1,39,756 maunds was due to the termination of the Anglo-Portuguese Treaty.

Consumption of salt in the Presidency.

The total quantity of salt issued for consumption in the Presidency amounted to 32,28,489 maunds. Taking the population at 23,902,006 according to the Census of 1891, the average consumption came to 11·11 lbs. per head as against 11·82 lbs. for the previous year. The salt removed for consumption in Gujarát was 8,45,267 maunds. This quantity for a population of 86,33,220 gave an average of 8·05 lbs. against 8·13 lbs. for the previous year.

The quantity of salt removed for consumption in other parts of the Presidency, *viz.* the Konkan, the Deccan, Khándesh, the Southern Marátha Country and North Kánara, was 23,83,222 maunds. The population affected being taken at 1,52,68,786 souls, the average came to 12·84 lbs. per head.

Wholesale market prices of salt in the Presidency.

The following table shows the wholesale market prices of salt as distinguished from prices at the works in each district of the Presidency during the months of April, August and December of each of the calendar years 1891 and 1892. The rates quoted are those given in the price current lists published in the *Government Gazette*:—

Districts.	April.		August.		December.	
	1891.	1892.	1891.	1892.	1891.	1892.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Bombay	3 15 4	3 15 6	3 15 4	3 15 6	3 15 4	4 2 8
Ahmedábád	3 0 4	3 0 4	3 0 4	3 0 4	3 0 4	2 14 6
Kaira	3 1 0	3 1 0	3 1 0	3 1 8	3 1 0	3 3 2
Panch Mahále	3 2 7	3 3 9	3 2 7	3 3 9	3 5 5	3 1 2
Broach	3 1 4	3 2 0	3 2 8	3 2 0	3 1 9	3 0 4
Surat	3 3 5	3 3 7	3 3 5	3 3 7	3 3 5	3 7 6
Thána	3 3 4	3 3 0	3 3 0	3 3 0	3 3 0	3 7 2
Kolába	2 15 4	3 0 3	3 0 8	3 1 0	3 0 8	3 5 9
Ratnágiri	2 15 5	3 0 6	3 12 10	3 2 10	3 1 1	3 7 9
Kánara	3 9 7	3 7 11	3 10 3	3 8 11	3 9 7	4 1 6
Násik	3 0 8	3 4 10	3 1 10	3 4 10	3 6 2	3 0 11
Khándesh	3 11 10	3 12 7	4 3 2	3 9 10	3 13 3	3 8 3
Ahmednagar	3 4 4	3 9 6	3 3 10	3 2 7	3 5 9	3 5 1
Sholápur	3 5 7	3 4 11	3 6 6	3 4 11	3 5 9	3 7 11
Poona	3 4 6	3 10 9	3 6 5	3 8 8	3 8 0	3 8 1
Sátára	3 3 8	3 6 8	3 7 8	3 10 8	3 11 5	3 7 2
Belganm	2 15 9	2 15 3	3 6 1	3 6 1	3 2 6	3 9 11
Dhárwár	3 14 1	3 9 11	3 13 8	3 10 10	3 12 8	4 1 4
Bijápur	3 14 9	3 14 11	3 14 11	4 0 0	3 14 11	3 8 8

In Bombay and the two adjoining districts of Thána and Kolába there were no variations between the prices ruling in April and August 1892, but they rose by about 4 annas a maund in the December following. This rise was attributed to the heavy rains during the last monsoon which retarded the manufacturing operations of the coming season and thus enhanced the value of old stocks of salt. There was also an increase of about 4 annas in Surat in December 1892 as compared with the previous year, which was due to the destruction of a large quantity of salt at Dhárasna by floods. In Kánara and Ratnágiri the prices ruling in August 1892 were lower than in the previous year, but they rose in December 1892. The increase was possibly due to the operation of the Transport of Salt Act, the

effect of which was to restrict the importation of Goa salt by sea into these two districts, which, during the currency of the Treaty, had been considerable.

Salt revenue.

The gross collections under the head of Salt Revenue in 1892-93 amounted to Rs. 2,18,06,319 against Rs. 2,26,38,847 in 1891-92, and showed a decrease of Rs. 8,32,528; but as compared with the average receipts for the four years ending 1891-92, they showed an increase of Rs. 13,61,607. The receipts on account of Imperial and Provincial Revenue respectively, are exhibited below :—

	1892-93.	1891-92.
	Rs.	Rs.
Imperial	2,17,41,192	2,25,81,556
Provincial	65,127	57,291
Total ...	2,18,06,319	2,26,38,847

(a) Imperial.

The realizations of Imperial revenue showed a decrease of Rs. 8,40,364 when compared with the previous year. The total excise duty actually realized on salt issued from works in the Presidency amounted to Rs. 2,06,11,372 against Rs. 2,12,92,819 in the previous year, showing a decrease of Rs. 6,81,447 due to a less quantity of duty paid salt having been removed and also to lighter issues on credit bonds from the salt works at Bassein, Trombay, Panvel, Uran, and Pen, during the year under report than in the preceding year. Duty on imports by sea showed a decrease of Rs. 2,484 owing to smaller imports of table salt from London and of Sindha salt from Bandar Abbas. The amount of duty and cost price realized on salt removed from Portuguese salt works decreased by Rs. 5,85,315 and Rs. 27,116 respectively, which was due to no salt being excised by the British Government at the Portuguese works owing to the close of the treaty. There was a decrease also of Rs. 1,049 under the head "Proprietary right of Government in certain salt works" due to smaller sales at Bulsár. The items of increase were one of Rs. 4,43,768 under duty on imports by land due to the levy of import duty on Portuguese salt throughout the year; one of Rs. 2,501 under the sale proceeds of Barágra salt due to larger sales at Khárághoda, and one of Rs. 17,784 under farms of Government salt works due to a portion of the arrears owing from the late lessee of the Government salt works at Bassein having been recoverd during the year.

(b) Provincial.

The total receipts under Provincial Revenue showed an increase of Rs. 7,836 over those of last year: while there was a decrease of Rs. 1,599 owing to no arrears of contribution on account of the cost of establishment having been recovered from the shilotris as in the previous year. There was an increase of Rs. 9,520 made up of various small items.

Expenditure.

The total expenditure for the year under report was Rs. 15,83,147 as against 15,84,349 in the previous year, a decrease of Rs. 1,202. There was a decrease of Rs. 1,88,588 in the expenditure in the Portuguese India establishment caused by the lapse of the Goa Treaty, and there was a corresponding increase on the Goa and Daman frontier expenditure, owing to the entertainment of fresh establishments there during the year. Among other items of increase the most important was one of Rs. 47,383 on the purchase, storage, and freight of Barágra salt, due to an increased production at the Khárághoda and Udu Agars, and another of Rs. 7,575 due to departmental construction and repair of buildings. Among the items of decrease the most important was one of Rs. 19,486 on peons' belts and clothing due to no thick clothing having been supplied to the men during the year and another of Rs. 4,400 due to savings on salaries caused by the absence of the Assistant Collector in charge Coast-guard Service on leave and by the fact that the office of the Collector of Salt Revenue was held by comparatively junior officers during the year.

Salt-smuggling cases.

Details showing the number of salt smuggling cases in 1891-92 and 1892-93, and the number of persons arrested, tried, acquitted and convicted in connection therewith, are given in the following table :—

	Number of cases detected.	Number of Persons					Percentage of convictions on number of persons sent up for trial.	Total estimated value of confiscations.
		Arrested.	Released by the Department.	Sent for trial before Magistrate.	Convicted by the Magistrate.	Acquitted by the Magistrate.		
								Rs.
1891-92	558	762	38	724	639	85	88·25	21,609
1892-93	611	957	85	872	773	99	88·64	20,268

The increase in the number of cases was entirely due to the establishment of the Goa and Daman frontier lines to prevent smuggling from Portuguese territory. The percentage of convictions on the persons sent for trial was 89·35 in the Northern Division and 88·17 in the Southern Division, as against 86·02 and 90·19 in 1891-92. More than one-third of the cases were detected on the Daman and Goa frontiers.

Sind.

Supply.

There was no change in the sources of supply which are (1) the Maurypur-Moach salt Works, (2) the Saran and (3) the Dilyar Salt Deposits. There was also a depôt at Sukkur to which salt was consigned from the Maurypur salt works. The usual imports of table

and rock salt by private agency amounted during the year under report to maunds 780 and 11,146 maunds against 729 and 10,604 maunds respectively. The following table contrasts the total production, loss and wastage, removals and balances of salt in stock at the close of the past two years :—

Years.	Stock in hand at the commencement of the year.	Made or excavated during the year.	Removed during the year.	Issued to the Mir of Khairpur.	Loss and wastage.	Stocks on hand at the close of the year.
	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
1891-92	1,68,478	3,28,850	2,44,503	9,350	7,846	2,35,629
1892-93	2,35,629	2,72,177	2,49,422	8,950	8,919	2,40,515

During the year under report 2,34,670 maunds were manufactured at the Maurypur salt works against 2,92,132 maunds in 1891-92 and the quantities of salt excavated at the Saran and Dilyar salt deposits amounted to 15,561 and 21,935 maunds against 12,060 and 24,656 maunds respectively in the preceding year. This year the consignments of salt from the Maurypur salt works to the Sukkur salt depôt and the Shamspir salting station were 53,600 and 232 maunds against 50,400 and 1,320 maunds respectively.

The following table exhibits in a comparative form the sales of salt from the various centres of supply :— Sales.

	1892-93.	1891-92.	Increase or decrease.
	Mds.	Mds.	Mds.
Maurypur salt works	1,78,536	1,74,196	+4,340
Saran salt deposit	12,553	13,254	-701
Dilyár salt deposit	16,583	18,221	-1,638
Sukkur salt depôt	41,280	37,822	+3,458
Shamspir salting station ...	470	1,010	-540
Total ...	2,49,422	2,44,503	+4,919

It will be observed from this statement that the sales of the year under report showed an increase of 4,919 maunds over the previous year.

The total quantity of salt produced locally and imported by private agency from Europe and the Panjab, consumed in the Province during the year under notice amounted to 2,58,634 maunds, which gives the average rate of consumption per head as 7·41 lbs. against 7·27 lbs. in the preceding year. Consumption.

The wholesale average ruling price of salt remained stationary, *viz.* Rs. 3-6-5 per maund. Prices.

Eight thousand nine hundred and fifty maunds of duty-free salt were supplied to His Highness the Mir of Khairpur, *viz.* 8,650 maunds from the Sukkur salt depôt and 300 maunds from the Dilyár salt deposit against 8,750 maunds in the previous year. Duty-free salt.

At the Shamspir salting station 470 maunds of salt were issued at a nominal rate of duty of 8 annas per maund for curing 3,612 maunds of fish against 1,010 maunds of salt for curing 7,406 maunds of fish in 1891-92. Almost the whole of the salted fish was exported to Bombay, Rangoon and Zanzibar. Fish-curing operations.

The gross receipts from excise duty and other charges amounted to Rs. 6,72,447 and expenditure to Rs. 1,22,609 against Rs. 6,50,088 and Rs. 1,30,638 respectively in 1891-92. The percentage of charges to gross receipts was 12·58 against 13·59 in the previous year. Financial results.

The number of offences against the salt laws rose from 185 in 1891-92 to 205 in 1892-93. Of these 92 were of illicit manufacture, 47 of illict removals from deposits, 31 of smuggling and 35 of a miscellaneous nature. There were 45 offences detected against the Opium and Abkári laws by the Salt Preventive Establishment against 46 in 1891-92. Offences.

Aden.

At Aden the gross revenue realized by the Salt Department was Rs. 14,962 as compared with Rs. 14,286, an increase of Rs. 676 over that of 1891-92. This was the highest collection on record. Expenditure during the year amounted to Rs. 1,857 against Rs. 1,786 in 1891-92. The total quantity of salt made and removed from pans, Government and private, was 73,798 maunds of 28 lbs. as compared with 71,177 maunds in the previous year.

Excise.

Presidency Proper.

The system, under which the country spirit farms were managed, remained unchanged. The monopoly farms for the sale of raw toddy in the district of Ahmedábád, in the Native State of Cambay and in that portion of the Mándvi Táluka of Surat which is situated to the north of the Tápti river, were abolished and the arrangements for the realization of revenue from toddy were assimilated to those in force in the Broach and Surat Districts. Changes of system.

Minor changes.

The following minor changes were introduced during the year under report, in connection with the arrangements for the sale of country liquor in certain districts. Permission was given for the sale of mhowra spirit concurrently with that of toddy spirit in the Ratnágiri District and in the Coast tálukas of the Kánara District, the rates of still-head duty being fixed at Re. 1-6-0, Re. 1-1-7 and Re. 0-11-0 per gallon of strengths 25° U. P., 40° U. P. and 60° U. P. respectively. The rates of still-head duty on toddy spirit sold in the town and island of Bombay, in the Ratnágiri District and in the Coast tálukas of the Kánara District, were raised, in the first by 2 annas and in the other two by 1 anna and 4 pies per gallon of strength 25° U. P. with proportionate increase in the rates for spirit of strength 40° U. P. and 60° U. P. The rates of tree tax were raised, in the Ahmedábád District, from Rs. 3 per cocoanut or brab tree and Re. 1 per date or wild palm tree to Rs. 5 and Rs. 2 respectively, in the Broach District from Rs. 5 per cocoanut or brab tree and Rs. 2 per date or wild palm tree to Rs. 5½ and Rs. 2¼ respectively, and in the Ratnágiri and Kánara Districts from Rs. 6 to Rs. 8 per cocoanut or brab tree. The tax on date trees tapped for domestic consumption by the Káliparáj, or members of the aboriginal races in the Bulsár, Párdi and Chikli Tálukas of the Surat District, was raised from annas 6 to annas 8.

Arrangements for the sale of malt liquor.

There was during the year under review only one brewery in existence, that at Dápuri near Poona. No alterations were made in the arrangements for the sale of foreign liquor or intoxicating drugs.

Realizations from all sources.

The total realizations of the year are contrasted with those of the previous year in the following table :—

	1891-92.	1892-93.
	Rs.	Rs.
Intoxicating drugs	1,33,328	1,40,714
Imported foreign liquors and Indian manufactured liquors excised at tariff rates...	1,27,469	1,39,168
Country liquor	79,16,478	80,96,036
Miscellaneous	1,41,258	1,40,293
Total ...	83,18,533	85,16,211

The realizations for the year exceeded those for 1891-92 by Rs. 1,97,678.

Intoxicating drugs.

The receipts from intoxicating drugs were greater by Rs. 7,386, the increase being principally in Poona, Kánara, Sholápur, Ahmedábád and Bijápur. The number of shops licensed for the sale of intoxicating drugs in the several districts of the Presidency during the year under report was 649, as compared with 645 in the preceding year. Four additional shops were opened in Khándesh, two in Sátára, and one each in Bijápur, Kánara and Ratnágiri, while two shops in Surat, one in Ahmedábád and one in Thána were closed The quantity of intoxicating drugs reported to have been sold from the shops during the year was 227,739 sers as compared with 280,717 sers sold in 1891-92.

Foreign liquor and Indian liquor excised at tariff rates.

The revenue from imported foreign liquors and Indian manufactured liquors excised at tariff rates, for the year under report was more than in the previous year by Rs. 11,699, due to larger issues of malt liquor from the Dápuri Brewery, the receipts from license fees in both the years being nearly equal. The number of hotels, refreshment rooms, and shops licensed for the sale of imported foreign liquors and Indian manufactured liquors excised at tariff rates during the year under report was 379, as in the previous year.

Revenue from country liquor.

The revenue from country liquor for the year under report exceeded that for the preceding year by Rs. 1,79,558. The following table shows the receipts under each principal item included under the head "country liquor revenue" for each of the two years ending 31st July 1892 and 31st July 1893 :—

	1891-92.	1892-93.
	Rs.	Rs.
Revenue from Country Spirit alone.		
Still-head duty on mhowra, jágri and toddy spirit	59,79,957	61,45,249
Deficiency in minimum guaranteed revenue made good by farmers on account of still-head duty	1,22,724	82,339
License fees for sale of spirits	2,91,8 6	2,92,447
Farms for manufacture and sale of spirits	25,440	25,400
Tree tax on trees tapped for extraction of toddy for distillation ...	80,550	86,085
Total ...	65,00,537	66,31,520
Revenue from Country Spirit and Toddy.		
Tree tax on trees tapped for sale of toddy and its distillation ...	2,08,446	2,05,302

Revenue from Toddy alone.	1891-92. Rs.	1892-93. Rs.
Tree tax on toddy trees tapped for sale of raw toddy only	7,99,628	8,45,545
License fees for sale of toddy	3,75,016	3,93,539
Deficiency in minimum guaranteed revenue made good by farmers on account of tree tax	31,024	18,956
Farms for use of toddy trees on Government land	1,827	1,174
Total ...	12,07,495	12,59,214
Grand Total ...	79,16,478	80,96,036

Revenue on country liquor by districts.

Details for each district are given in Appendix V. C. (1) and have not therefore been reproduced here. The above table shows that the revenue from country spirit alone increased by Rs. 1,30,983, "still head duty" being the chief item which contributed towards the increase. The receipts on account of deficiency in minimum guaranteed revenue were smaller because of the revision of the guaranteed amounts under the new contracts for the country spirit farms of the districts of Khándesh, Sholápur, Bijápur, Dhárwár, Ahmedábád, Kaira, Broach and the Panch Maháls. The increase of Rs. 51,719 in the toddy revenue was due to the raising of the rates of tree tax in some of the districts as stated above.

Consumption of country liquor.

The statistics furnished in columns 12 to 15 of Appendix V. C. (4), represent quantities of country spirit issued from the distilleries for sale from the shops both in British districts and in the villages of the Native States, the ábkári of which has been leased to the British Government. The following statement shows the actual sales of country spirits from the licensed shops in each district during each of the years 1891-92 and 1892-93. For purposes of comparison, the quantities are given in gallons of strength 25° U. P. :—

Districts.	1891-92. Gallons.	1892-93. Gallons.
Bombay	5,60,852	5,62,505
Ahmedábád	57,956	64,309
Kaira	13,097	12,089
Panch Maháls	78,063	97,747
Broach	65,916	75,682
Surat	3,00,683	3,35,967
Thána	4,01,621	3,90,783
Násik	72,550	79,570
Khándesh	2,83,808	3,18,033
Ahmednagar	26,543	25,311
Poona	1,41,878	1,35,249
Sholápur	33,477	31,678
Sátára	21,763	20,774
Belgaum	55,468	58,010
Dhárwár	68,242	74,468
Bijápur	18,790	19,779
Kánara	49,615	46,488
Ratnágiri	79,450	80,788
Kolába	1,27,769	1,47,745
Total ...	24,57,541	25,76,975

The total sales increased by 119,434 gallons. The increases in Bombay, Bijápur and Ratnágiri, and the decreases in Kaira, Ahmednagar, Sholápur and Sátára were trifling. The competition between the British and Gáekwádi shopkeepers in the frontier villages in Gujarát being now not so keen as formerly, the sales in the districts of Ahmedábád, Broach and Surat during the year under review were larger than those of the preceding year, while the large increase in the Panch Maháls was attributable to the importation of labourers in connection with the Railway construction operations. The increase in Násik, Khándesh, Belgaum and Dhárwár was attributable to a satisfactory season. The large fluctuations under Thána and Kolába are only apparent, the statistics of the Karjat táluka for the year 1891-92 were shown under Thána while those for 1892-93 in which year Karjat was transferred to Kolába are shown under that district. The sales in both the districts as now constituted increased, those of Thána by 2,782 gallons or 0·7 per cent., and those of Kolába by 6,356 gallons or 4·5 per cent. The Mhowra Flowers Act came into force towards the close of the year and may possibly have had some effect in increasing the sales of licit liquor. The sales in Poona during the year under report showed a decrease of 6,629 gallons as compared with those of the previous year. They were, however, larger than those of 1890-91 by 4,519 gallons.

Shops licensed for the sale of country spirit.

The number of shops licensed for the sale of country spirits in the several districts of the Presidency during the year under report was 2,586 as compared with 2,633 in the preceding year, being a decrease of 47 shops. The number of licenses granted for the sale of toddy at tree-foot booths and shops during the year under report was 1,720 as compared with 1,803 issued in the preceding year. Details as regards each district are given in Appendix V.—C. (3).

Number of trees tapped.

The subjoined statement shows the number of trees tapped in each district of the Presidency during the year under report and in the preceding year :—

Districts.	1891-92.			1892-93.		
	Cocoanut.	Brab.	Date and wild palm.	Cocoanut.	Brab.	Date and wild palm.
Bombay	14,160	768	4,900	13,832	820	4,913
Ahmedabád	.....	.....	460	.....	.....	225
Kaira	.....	.....	14	.....	759	.....
Panch Mahals	.....	.....	.....	.....	.....	.....
Broach	.....	2,075	359	.....	1,025	430
Surat	.....	1,435	113,829	.....	1,824	123,261
Thana	348	6,821	9,389	272	7,158	15,042
Násik	.....	.....	951	.....	.....	812
Khándesh	.....	.....	.....	.....	.....	.....
Ahmednagar	.....	.....	1,013	.....	.....	1,765
Poona	68	.....	6,791	88	.....	6,581
Sholápur	.....	.....	19,863	.....	.....	20,305
Satára	.....	.....	14	.....	.....	8
Belgaum	.....	.....	26,889	.....	.....	25,069
Dharwar	.....	.....	31,394	.....	.....	29,083
Bijapur	.....	.....	70,109	.....	.....	58,171
Kanara	7,251	.....	4,176	5,205	.....	3,989
Ratnagiri	20,833	.....	.....	18,453	.....	23
Kolaba	542	1,301	2,598	565	1,529	2,559
Total ...	43,202	12,400	292,749	38,415	13,115	292,246

The trees shown opposite Bombay, Kánara and Ratnágiri include trees tapped for toddy for distillation. The quantity of toddy brought to the distilleries for the manufacture of spirit, and the quantity of toddy spirit (in gallons of strength 25° U. P.) manufactured therefrom in the districts referred to in each of the two years, are shown in the following table :—

	Toddy distilled.		Spirit manufactured.	
	1891-92.	1892-93.	1891-92.	1892-93.
	Gallons.	Gallons.	Gallons.	Gallons.
Bombay	765,885	826,622	115,703	125,034
Kanara	175,606	130,393	21,177	23,676
Ratnágiri	622,859	708,342	84,153	91,328

The quantity of toddy spirit manufactured in each of the three districts during the year under report was more than in the preceding year. The toddy distilled was drawn almost wholly from cocoanut and brab trees. In Bombay 6·6 gallons, in Kánara 5·5 gallons and in Ratnágiri 7·8 gallons of toddy were ordinarily required to manufacture one gallon of spirit of strength 25° U. P.

Incidence of Ábkári taxation.

The average incidence of A'bkári taxation per head of population according to the census of 1891 for the year under report was 8 annas and 4 pies against 8 annas and 1 pie in the preceding year.

Expenditure.

The total expenditure of the Excise Department during the year under report was Rs. 3,08,663 as against Rs. 3,22,793 in 1891-92. The amount of annual compensation paid to the Municipality of Bombay for the loss of revenue formerly accruing from the sale of shop licenses, to the Chiefs in the Konkan, Deccan and Southern Marátha Country, in the Rewa Kántha, Mahi Kántha and Khándesh Agencies and to the Naváb of Cambay was Rs. 3,76,457. Owing to the fact that the expenditure of the Abkári and Opium Departments is debited to one head of account, the amount of actual expenditure pertaining to each cannot be accurately stated.

SIND.

General.

The general arrangements existing at the close of the year 1891-92 for the supply and sale of country liquor continued during the year 1892-93, the only modification being the permission accorded to dealers in liquor traffic of soaking mace and nutmeg in hot and double distilled liquor. No liquor was manufactured of strength between 12° and 22° U. P. The rates of still-head duty on country liquor were Rs. 3 and Rs. 4 per gallon on weak and strong liquor, respectively, except in the Thar and Párkar District, where they were Rs. 2-13-0 and Rs. 3-13-0 per gallon.

Revenue.

The gross A'bkári revenue for the several districts of the Province of Sind during the year under report, as compared with the previous year, is given in the subjoined statement :—

District.	1892-93.	1891-92.	Increase.
	Rs.	Rs.	Rs.
Karáchi	2,89,210	2,62,132	27,078
Hyderabad	2,46,408	2,32,247	14,161
Shikárpur	2,03,131	1,84,100	19,031
Thar and Párkar	17,092	14,404	2,688
Upper Sind Frontier	30,379	28,423	1,956
Total ...	7,86,220	7,21,306	64,914

The increase of Rs. 64,914 was composed largely of increased realizations under still-head duty, which amounted to 73 per cent. of the total A'bkári revenue. The numbers of licenses for country and foreign liquor issued were respectively 286 and 111 against 297 and 96 in 1891-92, and the amount of fees realized on both together was Rs. 41,303 against Rs. 38,489 in the previous year. The increase was due to the fees for retail licenses in the Shikárpur and Lárkhána towns having been increased to Rs. 250. The fees on licenses given out for the manufacture of country liquor were Rs. 3,554 against Rs. 3,497 in 1891-92. The right of drawing and selling toddy was farmed for Rs. 852 against Rs. 638 in the previous year, and 9 shops were allowed to be opened during the year. The revenue from intoxicating drugs other than opium or preparations of opium was Rs. 1,65,310 against Rs. 1,41,635 in 1891-92. The increase was due to keen competition. The incidence of taxation per head of population (according to the census of 1891) during the year under report was 4 annas 5 pies against 4 annas 2 pies in 1891-92.

Expenditure.

The expenditure connected with the A'bkári Department during the year under report was Rs. 14,392 against Rs. 13,546 in the preceding year.

ADEN.

Receipts and expenditure.

The gross receipts from foreign and country liquor together with warehouse rent during the year under report amounted to Rs. 86,567 as against Rs. 88,858 in the previous year. The expenditure which was incurred solely in the payment of establishment and contingent charges was Rs. 6,637 against Rs. 6,444 in the previous year. There were 12 licenses in force for the sale of imported liquor and two for the sale of country liquor.

Stamps.

Revenue and expenditure.

The gross receipts under the Indian Stamp Act and Court Fees Act for the year were Rs. 57,36,586 against Rs. 54,55,853 in the previous year, showing an increase of Rs. 2,80,733 or 5·1 per cent. Taken separately, the receipts under the Indian Stamp Act amounted to Rs. 25,08,760 and those under the Court Fees' Act to Rs. 32,27,826, an increase of Rs. 96,927 and Rs. 1,83,806 over those for the preceding year. The charges under the Stamp Act were Rs. 1,19,414 and under the Court Fees Act Rs. 1,36,566, an increase of Rs. 4,075 and Rs. 1,242 respectively. The proportion borne by charges to total income was 4·4 per cent. against 4·5 per cent. in 1891-92. Taken separately, the charges on account of general stamps were 4·7 per cent., and those on account of Court-fee stamps 4·2 per cent.

Heads of receipt.

The receipts under the head of foreign bill stamps amounted to Rs. 66,479 against Rs. 69,667, being a decrease of Rs. 3,188 or 4·5 per cent. The amount realized under the head of India revenue stamps was Rs. 1,92,773 against Rs. 1,93,627 in the previous year, being a decrease of Rs. 854 or ·4 per cent. Besides the revenue under the preceding head a sum of Rs. 34,177 was realized on account of stamping skeleton forms with the one-anna coloured impressed stamp, which formed a part of receipts on account of "one-anna stamp." The revenue from share transfer stamps amounted to Rs. 44,157 against Rs. 38,407, being an increase of Rs. 5,750 or 14·9 per cent. From bills of exchange, including hundis, the revenue was Rs. 2,05,941 against Rs. 2,30,941 in 1891-92, showing a decrease of Rs. 25,000 or 10·8 per cent. The revenue derived from sales of general stamps (stamped papers and impressed labels) amounted to Rs. 19,06,055 against Rs. 18,27,052 in 1891-92, showing an increase of Rs. 79,003 or 4·3 per cent. The receipts under the head of court-fee stamps amounted to Rs. 32,21,804 against Rs. 30,35,000, showing an increase of Rs. 1,86,804 or 6·1 per cent. The large increase effected was owing to stamps of the value of Rs. 1,26,650 having been sold for the probate of the will of the late Nasarwanji Máneckji Petit.

Other receipts.

The amount realized by Civil Courts and Collectors on account of stamp duty and penalties on unstamped and insufficiently stamped documents was Rs. 17,012 against Rs. 17,303 in 1891-92. The stamp duty realized by Collectors was Rs. 2,844 and by Civil Courts Rs. 936, against Rs. 3,966 and Rs. 913, respectively, in 1891-92. The penalties amounted to Rs. 13,233, of which Rs. 3,679 were levied by Collectors and Rs. 9,554 by Civil Courts. Adjudication fees under Section 30 of the Indian Stamp Act amounted to Rs. 579 (of which Rs. 555 were realized in Bombay) against Rs. 492-8-0 in 1891-92. One hundred and eleven documents were presented for adjudication of stamp duty against 94 in the preceding year. The stamp duty amounted to Rs. 7,201 against Rs. 11,313 levied in 1891-92. The receipts on account of Court fees in pauper suits were Rs. 5,933 against

Rs. 8,821 in 1891-92. Other miscellaneous receipts under the Indian Stamp Act amounted to Rs. 41,586 against Rs. 650 during the previous year; the striking increase was owing to the sum of Rs. 30,805 on account of composition of stamp duty chargeable on Bombay Port Trust Debentures and Rs. 10,000 on Karáchi Port Trust Debentures being shown under this head. Other miscellaneous receipts under the Court Fees Act amounted to Rs. 89 against Rs. 199 in 1891-92.

Charges and refunds.

The total charges amounted to Rs. 2,55,980 against Rs. 2,50,663 in 1891-92, showing an increase of Rs. 5,317 or 2·1 per cent., due chiefly to the large amounts of refunds and discount allowed in the year under report. The charges on account of general stamps were Rs. 1,19,414 against Rs. 1,15,339 in 1891-92, and on account of court-fee stamps Rs. 1,36,566 against Rs. 1,35,323. Refunds made by order of Civil Courts amounted to Rs. 61,825 against Rs. 62,657 in 1891-92.

Income Tax.

Financial results.

The following table shows the financial results of the Income-tax in 1892-93, as compared with the previous year :—

	Original demand.		Final demand (including penalties and arrears).		Collections (including penalties and arrears).		Incidence per head of tax-payers.		Expenditure.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern Division ...	4,36,572	4,57,859	4,14,873	4,40,188	4,05,124	4,33,836	26	27	2,473	2,870
Central Division	3,93,151	4,04,589	3,76,667	3,90,382	3,68,487	3,84,050	26	26	4,172	4,085
Southern Division ...	1,86,480	1,90,378	1,93,440	1,94,362	1,91,835	1,93,059	21	21	235	468
Sind ... —	2,83,049	3,00,543	2,77,375	2,90,574	2,74,593	2,89,086	22	22	1,321	1,978
Aden ... —	40,983	39,638	36,282	35,148	36,282	34,516	46	42	892	887
Bombay City	19,08,166	20,09,353	19,07,638	19,97,558	18,10,801	18,26,330	74	73	42,020	43,542
Presidency generally (collections made on account of (i) official salaries, pensions, &c., and (ii) interest on securities	5,08,952	5,18,996	5,03,952	5,18,996	5,03,952	5,18,996	...	...	...	...
Total ...	37,63,373	39,20,356	37,08,227	38,67,205	35,91,074	37,78,872	...	...	51,113	51,731

There was an increase in the income-tax collections in all parts of the Presidency, except in Aden, where there was a trifling decrease of Rs. 1,767. The net increase for the Presidency amounted to Rs. 1,87,798. The increase of Rs. 25,315 in the final demand of the Northern Division was almost entirely due to increased collections in the Broach, Ahmedábád and Panch Maháls Districts, caused in the first two instances by the greater prosperity of the trading classes owing to the exceptionally good season and in the last by contributions from contractors on the Godhra-Rutlam Railway. The increase of Rs. 15,563 in the Central Division was partly due to an improvement in trade and partly to greater accuracy on the part of assessing officers. The small increase of Rs. 1,224 in the Southern Division appears to have been due to the same causes. The figures for Sind show an increase of Rs. 14,493, more than half of which was collected in Karáchi and was attributable to the careful revision of the assessment lists and also to the increased traffic in grain and cotton during the year and to the high prices obtained for those commodities. There was, however, a decrease of Rs. 804 in the final demand in the Upper Sind Frontier District owing to the failure of the crops there. The increase of Rs. 1,14,529 in Bombay City was chiefly due to larger collections under Part I (Salaries), Part II (Railways,) Part II ('Other Joint Stock Companys,') and Part III (Interest on Securities). The increases under the first and last of these were small and do not need remark. The increase under the second was due to the large traffic in wheat and seeds which swelled the profits of the G. I. P. Railway Company, and under the third to the brisk demand for yarn in China, which yielded good profits to the cotton mills.

Local Funds.

Incorporated Local Funds: Receipts.

The following statement exhibits the receipts of the Incorporated Local Funds in the year 1892-93 as compared with those realized in the year 1891-92 :—

Receipts.	1891-92.	1892-93.	Increase + or decrease — in 1892-93.
	Rs.	Rs.	Rs.
I.—The Local Fund (Act I of 1884)	51,60,990	49,87,330	—1,73,660
II.—The Village Officers' Cess Fund (Sind)...	3,73,270	3,64,330	—8,940
III.—Government Central Book Depôt Fund	1,56,270	1,47,480	—8,790
IV.—Steam Boiler Inspection Fund	41,840	43,180	+1,340
Total ...	57,32,370	55,42,320	—1,90,050

The decrease under head I was due chiefly to the additional grant of one lákh of rupees for village sanitation not having been taken advantage of by any district, only the ordinary grant from Provincial having been utilized during 1892-93, to exceptionally large grants for public works in 1891-92, and to recoveries, in 1891-92, of Provincial rates of previous year aggregating Rs. 25,000 which had been postponed in consequence of census operations. There were also other minor fluctuations such as increase of Rs. 11,400 in the sand and quarry-fees in the Thána, Surat and Karáchi districts, of Rs. 32,000 in grant to Vernacular schools, of Rs. 6,780 in school-fee receipts, of Rs. 4,470 and Rs. 27,490 in fishery and cattle-pound receipts, respectively, in Sind. These, however, were practically counterbalanced by decreases under the following heads:—Minor Department (Rs. 2,480) owing to the abolition of the experimental farms, grants to school buildings (Rs. 17,200) and to School of Industry (Rs. 6,570), due to the arrear contribution received in 1891-92 on account of the previous year. The decrease in the village officers' fund receipts was probably due to heavy remissions granted in the Upper Sind Frontier District, owing to the almost complete destruction of the crops by locusts. The decrease under Fund III was owing to smaller sales of books and publications than in the previous year. The increase under Fund IV was due to an increase in the number of boilers inspected both at the Presidency town and in the Mofussil.

Charges.

In the following table the charges on account of the Incorporated Local Funds in 1892-93 are compared with those of 1891-92:—

Funds.	1891-92.	1892-93.	Increase + or decrease − in 1892-93.
	Rs.	Rs.	Rs.
I.—The Local Fund (Act I of 1884)	50,80,720	52,29,770	+1,49,050
II.—Village Officers' Cess Fund (Sind)	2,69,990	2,69,370	−620
III.—Government Central Book Depôt Fund	1,54,750	99,330	−55,420
IV.—Steam Boiler Inspection Fund	23,000	56,480	+33,480
Total ...	55,28,460	56,54,950	+1,26,490

The increase under Fund I was owing mainly to increased expenditure on public works, and partially to enhanced grants to municipal schools for building and other purposes, to establishment and contingent charges due to a further extension of primary education, and to purchase of new materials for the local School of Industry in Ratnágiri. The increase was, however, counterbalanced by a decrease under Stationery and Printing, contribution from Local Funds to Provincial and Advances. Of these, that under the second was the most important, a contribution of Rs. 1,48,000 having been made in 1891-92 by the Hyderábád and Thar and Párkar Local Boards towards the construction of the Hyderábád-Umarkot Railway which was not repeated during the year under report. The difference under Fund II is too small to call for any explanation. The decrease under Fund III was due to smaller purchases, and to the publication of fewer books in 1892-93 than in 1891-92. The excess under Fund IV was chiefly due to the investment of the surplus of the Fund in Government securities and to the additional charge imposed upon the Fund by the creation of the appointment of a third Inspector of Steam Boilers.

Excluded Local Funds: Receipts.

In the following statement the receipts from Excluded Local Funds in 1892-93 are compared with those realized in 1891-92:—

Receipts.	1891-92.	1892-93.	Increase + or decrease − in 1892-93.
	Rs.	Rs.	Rs.
I.—Cantonment Funds	2,71,630	2,69,970	−1,660
II.—Police Funds	85,150	73,020	−12,130
III.—Port and Marine Funds	3,66,540	4,07,860	+41,320
IV.—Educational Funds	46,170	40,450	−5,720
V.—Medical and Charitable Funds	2,56,510	2,70,410	+13,900
VI.—Other Funds	18,64,200	13,83,370	−4,80,830
Total ...	28,90,200	24,45,080	−4,45,120

There was an improvement in receipts under Fund I in Ahmednagar (Rs. 3,350) and Karáchi (Rs. 1,500), but a falling off in Poona (Rs. 5,500) and Deesa (Rs. 1,000), chiefly in conservancy fees and sale of manure. The decrease under Fund No. II was chiefly due to the Mahi Kántha Fund having been brought on the books in 1891-92 and partially to sale-proceeds of horses and horse-equipment realized in the previous year and not repeated during the year under report. Under Fund III the net increase was owing to the sale-proceeds of Government promissory notes of the Aden Port Fund of the nominal value of Rs. 50,000, and to an increase of Rs. 13,000 in the receipts in the Southern Group Port Funds. This was counterbalanced to some extent by a falling off in the Northern Group Fund receipts, Indus Conservancy Fund, Steam Vessel Survey Fund, Rock Light Fees

and Aden Port Fund. The decrease in Fund No. IV was due to the transfer of the Endowment Fund of the Female Normal School, Poona, to Provincial (Rs. 2,000), to small subscriptions to the Lingáyat Educational Fund, as also to other small fluctuations. The improvement under Fund V was owing to more liberal grants-in-aid made by Local Boards to hospitals and dispensaries and to the opening of three new Dispensary Funds during 1892-93. The falling off under Fund VI was chiefly due to the transfer of certain Educational, Medical and Public Works Funds to "Other Funds" in 1891-92, and partially to the abolition of the Báriya Tribute Fund, Cotton Gin Factory Fund and to small receipts under Mahi Kántha and Rewa Kántha Local Funds.

Charges.

In the following statement the expenditure from Excluded Local Funds is contrasted with that of 1891-92:—

Funds.	1891-92.	1892-93.	Increase + or decrease − in 1892-93.
	Rs.	Rs.	Rs.
I.—Cantonment Funds	2,79,070	2,71,830	−7,240
II.—Police Funds	74,830	80,740	+5,910
III.—Port and Marine Funds	4,46,010	3,98,970	−47,040
IV.—Educational Funds	79,140	33,800	−45,340
V.—Medical and Charitable Funds	2,66,310	2,71,600	+5,290
VI.—Public Works Funds	13,310	.....	−13,310
VII.—Other Funds	16,65,280	13,27,280	−3,38,000
Total ...	28,23,950	24,04,620	−4,89,730

The net decrease under Fund No. I was the result of less expenditure by the Poona, Jacobábád and Kirkee Cantonment Committees and increased expenditure by Ahmednagar, Belgaum, Deesa, Málegaon and Karáchi. The excess expenditure in 1892-93 under Fund No. II was owing to the investment, in Government securities, of Rs. 4,000, the surplus of the Ahmedábád Police Horse Fund, and to purchase of remounts and horse equipment in some districts. The decrease under Fund No. III was due to investment, in 1891-92, in Government securities of the surplus of the Northern and Southern Group Port Funds, and to larger expenditure on Port Fund Works in that year, and to a certain extent to smaller receipts on account of Rock Light dues. Under Fund No. IV the decreased expenditure in 1892-93 was owing to the transfer, in 1891-92, of the Educational Funds in Káthiáwár to the heading "Other Funds." The increased expenditure under No. V was chiefly due to the opening of three new dispensaries. There were no charges during 1892-93 under Fund No. VI. The amount shown as charged in 1891-92 represents the transfer of the amount at the credit of the Public Works Fund to the head "Other Funds." The decrease under Fund No. VII was due to a change in classification, in 1891-92, of certain Funds classified formerly against different sub-heads under "Other Funds."

Municipal Revenues.

A notice of the income and expenditure of municipalities is included in the general review of the administration of those bodies in Chapter III.