

## CLIMATE, VITAL STATISTICS, AND BENEVOLENT INSTITUTIONS OF INDIA

THE climate of India embraces all the varieties of temperature that prevail between the Equator and the ever frozen regions of the Himalaya Mountains, it is equally varied in its physical characteristics, configuration, aspect, surface, soil, and vegetable products

That the insalubrity of the climate generally, has been greatly exaggerated, will appear evident from the following statistical accounts, condensed from numerous returns, running over periods of twenty years, and chiefly from the actual statistics of the troops in India, collated and prepared by Colonel Sykes

The first class of documents which he refers to as authority, was drawn up by the military auditor general in Bombay, General Barr, with a view to determine the effect of the climate of Scinde upon the health of the troops employed in that province

The original returns of the first class, for the years 1842-3 and 1844, independently of the sickness, mortality, and invaliding of the soldiers from the ages of twenty to fifty two, of every regiment of the Bombay army, exhibit also all casualties from desertions, discharges, transfers, &c, together with the country and caste of every soldier, the station at which the regiment was located in each year, and the dates of arrival and departure. A distinct return is made for the troops serving in Scinde

The total number of men in the Bombay army in the year 1842 was 32,727, and the deaths 1070, or 3.2 per cent per annum. In 1843, the troops numbered 32,464, and the deaths 871, or 2.7 per cent. In 1844, the numbers were 33,970, and the deaths 732, or 2.25 per cent, the deaths in all cases being inclusive of those from cholera. The per centage mortality at each age shows that the maximum mortality was 6.25 per cent in the year 1842, at the age of fifty-one, while the two following years at that age gave respectively only 2.33 per cent and 2.44 per cent, the minimum at any age was 0.92 at the age of fifty, in the year 1844, while in the preceding years it was respectively 3.64 and 5.93 at that age. The mean maximum was at the age of fifty-one, being 3.78 per cent, the mean minimum being 2.20 per cent at the age of thirty-seven. In the mortality of the troops serving in Scinde, as distinguished from the mortality of the troops serving in other parts of the territory under the Bombay government, the per centage is struck at every age of life, and upon the average, and upon the averages for quinquennial periods of life. At every age the mortality in these troops is found to be considerably enhanced, the mean maximum being 4.95 per cent between the ages of forty one to forty-five inclusive, the per centage for the ages fifty-one and fifty two being nearly the same, the mean minimum 3.64

between the ages of forty six and fifty inclusive, and the mean of the whole mortality of the troops serving in Scinde, 4 33 per cent

The mortality of the troops who did not serve in Scinde, shows that the maximum mean mortality was 3 12 per cent between the ages of forty six and fifty inclusive, the minimum 1 81 per cent between the ages of thirty-six and forty inclusive, and the mean mortality of all ages, for the whole period, is 1 97 per cent.

It is hence shown that the healthiness of the native troops of the Bombay army, serving under their own presidency, is nearly equal, according to Colonel Tulloch, to that of the health of the British troops at Malta, 1 87, and superior to that of the British troops at Gibraltar, 2 20, and the health of the troops serving in Canada, 2 00 per cent, and far superior to the health of troops in the Ionian Islands, 2 83 per cent. It is shown, however, that where the mortality of the Bombay army is deduced from a lengthened period, it is very much less than 1 97 per cent. The mortality of the whole Bombay army, whether serving in Scinde or elsewhere, for three years, for every age, and for quinquennial periods of life, upon the accumulated totals of three years at each age, gives the mean maximum 3 25 per cent between the ages of forty six and fifty, inclusive, the mean minimum 2 63 per cent being twenty-one and twenty-five, inclusive, and the mean mortality of all ages 2 729 per cent. Here we see that, inclusive of the effects of the climate of Scinde and the cholera, the mean mortality is less than that of the royal troops in the Ionian Islands

With respect to the country and caste of the troops constituting the Bombay army, it will be sufficient to give the chief features

The Concan is the low land at the foot of the Ghâts, north and south of Bombay, and supplies a valuable class of Mahrattas as soldiers. The Deccan is the Mahratta country above the Ghâts, and I am surprised to find so few of the troops from it. Hindostan furnishes six-eighths of the whole army, the men being mostly Hindoos. Of castes, the Hindoos are eleven to one of the Moosulmans, the low castes constitute about one eighth. The Jews, although small in number, are valuable from their steadiness and ability

COUNTRY						CASTE						
Concan	Coerret.	Deccan	Hindoo shan	Madras	Malabar	YEARS	Chris- tians	Jews	Moosul- mans	Hindoo	Low Castes	Parses
No 12,421	No 519	No 2 143	No 16,358	No 238	No. 447	1842.	No 328	No 327	No 2937	No 24,617	No 4417	No
12 010	505	2 050	16,263	248	452	1843	310	324	2906	24 738	4175	11
11 049	501	2,027	17,268	206	404	1844	331	327	2963	24,024	4298	12

**ABSOLUTE Mortality of the Bombay Army at every Age, from Age Twenty-one to Fifty two inclusive, for the Years 1842, 1843, and 1844**

AGES	1842		1843		1844		TOTAL	
	Mean of Living	Deaths	Mean of Living	Deaths	Mean of Living	Deaths	Mean of Living	Deaths
	number	number	number	number	number	number	number	number
21	5,428	109	5,140	105	6,046	140	18,131	349
22	2,666	64	2,834	67	2,959	65	8,161	196
23	2,910	69	3,056	70	3,048	80	9,050	302
24	2,137	74	2,706	75	2,856	71	8,550	221
25	1,983	80	2,240	79	2,320	42	6,549	178
26	1,100	43	1,735	62	1,763	24	4,945	121
27	1,142	39	1,334	26	1,407	38	3,783	95
28	602	39	675	33	697	26	2,154	59
29	420	19	610	24	618	16	1,778	52
30	418	19	450	12	494	17	1,278	48
31	379	9	349	8	366	8	1,094	25
32	810	18	392	18	396	4	1,258	29
33	602	21	407	11	494	10	1,043	43
34	609	22	666	17	737	8	2,102	57
35	1,101	46	929	18	125	25	2,359	89
36	1,011	34	524	25	833	20	2,352	69
37	1,019	26	990	28	973	19	2,988	60
38	894	35	879	14	938	22	2,711	83
39	688	39	721	10	736	21	2,325	60
40	790	35	788	30	774	16	2,171	73
41	544	11	586	18	630	10	1,760	39
42	803	14	441	12	466	14	1,430	40
43	819	26	450	10	450	15	1,428	51
44	392	18	293	7	422	11	1,233	36
45	344	18	853	9	370	10	1,069	37
46	283	11	274	7	283	6	844	24
47	234	14	275	7	230	7	669	30
48	306	8	344	5	215	5	845	23
49	174	4	157	6	149	2	450	12
50	135	8	110	4	109	1	354	13
51	96	6	80	2	94	3	264	10
52	253	6	245	6	247	2	745	17
	22,797	1070	22,461	671	33,070	722		

AGE	Per Centage of Mortality in the Bombay Army during the Years—				AGE	Per Centage of Mortality in the Bombay Army during the Years—			
	1842		1843			1844		TOTAL	
	per cent	per cent.	per cent.	per cent.		per cent.	per cent.	per cent.	per cent.
21	3.35	3.13	2.46	2.38	37	2.35	2.81	1.74	2.31
22	2.83	2.37	1.53	2.24	38	3.02	1.50	3.03	3.08
23	2.76	2.31	1.64	2.23	39	3.78	1.90	3.65	2.69
24	3.81	2.58	2.48	2.67	40	4.54	2.71	2.40	3.25
25	3.33	3.11	1.81	2.72	41	3.02	3.07	1.90	2.28
26	3.08	3.63	1.35	4.19	42	2.89	2.11	3.01	2.79
27	2.0	2.11	2.69	2.51	43	5.01	2.16	3.34	3.37
28	5.2	2.63	3.12	3.60	44	5.11	1.67	2.61	3.08
29	2.31	3.34	2.47	2.92	45	5.23	2.56	2.71	3.46
30	4.35	2.84	3.44	3.48	46	3.68	2.59	3.12	3.24
31	2.37	2.13	2.19	2.38	47	5.13	3.11	3.05	3.77
32	2.05	3.31	1.04	2.31	48	1.13	3.14	6.11	3.56
33	3.04	2.41	2.63	1.90	49	2.31	3.52	1.31	2.49
34	3.04	2.61	1.28	2.71	50	5.03	3.64	0.92	3.47
35	4.19	1.94	2.71	3.01	51	6.25	3.33	2.16	3.8
36	3.37	2.42	2.11	2.77	52	9.37	3.2	1.22	2.28

**MEAN Mortality per Cent of the Bombay Army for 1842, 1843, and 1844**

AGE	Living	Deaths.	Mortality	AGE	Living	Deaths	Mortality
	number	number	per cent		number	number	per cent
21	18,131	540	2.9743	37	2,989	66	2.2081
22	8,161	196	2.3711	38	2,710	83	3.0277
23	9,050	302	3.3369	39	2,295	60	2.6066
24	8,550	217	2.5380	40	1,102	73	6.6169
25	6,549	178	2.7180	41	1,760	39	2.2180
26	4,945	121	2.4464	42	1,430	40	2.803
27	2,154	59	2.7312	43	1,420	51	3.5659
28	2,102	50	2.3760	44	1.34	38	3.0044
29	1,278	52	2.9247	45	1,019	37	3.6612
30	1,094	48	3.4333	46	844	24	2.8437
31	1,043	2	2.3333	47	853	36	4.209
32	1,258	29	2.3052	48	615	26	4.2292
33	1,043	42	3.9373	49	481	12	2.4948
34	1,094	27	2.4717	50	374	13	3.4723
35	1,233	69	5.6038	51	364	10	2.7470
36	2,359	80	2.7158	52	745	17	2.2919
	6,836	2,061			21,041	619	

MORTALITY of Regiments of Bombay Army serving in Scinde, at each Age, with  
Average for every Fifth Year

A G E S.	P O P U L A T I O N	D E A T H S			
		A T E A C H A G E		I N P E R I O D S	
		Total	Mortality	Total	Mortality
	number	number	per cent	number	per cent.
21	4740	364	5 563		
22	2,048	84	5 178		
23	3 048	109	3 379	628	4 279
24	2,829	119	4 193		
25	2,325	58	4 159		
	15,012				
26	1783	67	3 777		
27	1,478	00	4 050		
28	964	43	4 979	238	4 289
29	784	25	4 831		
30	560	22	4 167		
	5 209				
31	480	17	3 498		
32	507	15	2 958		
33	024	23	3 688	129	3 863
34	737	24	3 250		
35	055	60	5 070		
	3,339				
36	940	46	4 592		
37	022	42	4 535		
38	069	45	4 730	201	4 873
39	685	22	4 071		
40	667	28	3 697		
	4 123				
41	646	14	2 261		
42	370	13	3 458		
43	379	24	6 451	04	4 05
44	398	18	5 572		
45	281	23	6 637		
	1,858				
46	223	6	2 0 0		
47	101	4	2 094		
48	145	7	4 828	37	2 644
49	99	3	2 030		
50	83	7	8 433		
	741				
51	38	2	5 263	7	4 964
52	102	3	4 854		
	141				
TOTAL.	21 362			1 350	4 330



MORTALITY of Regiments of Bombay Army not in Scinde at all during the Years 1842, 1843, and 1844, for each Age, and with Averages for every Fifth Year

A G E S	POPULATION	D E A T H S			
		A T E A C H A G E.		I N P E R I O D S	
		TOTAL	Mortality	TOTAL	Mortality
	number	number	per cent.	number	per cent.
21	13,384	276	2 059		
22	0 118	112	1 831		
23	6 002	90	1 649	665	1 901
24	5 270	58	1 850		
25	4 914	80	1 698		
	31 066				
26	3,163	54	1 707		
27	2 305	35	1 518		
28	1 491	42	2 917	179	1 289
29	1 054	17	1 013		
30	818	25	3 056		
	6,831				
31	608	8	1 316		
32	751	14	1 864		
33	1 010	19	1 864	113	1 077
34	1 365	33	2 417		
35	1 972	30	1 977		
	5,716				
36	1 952	34	1 742		
37	2 067	24	1 162		
38	1 801	40	2 221	161	1 816
39	1 540	28	1 913		
40	1 505	35	2 326		
	6,865				
41	1 214	25	2 050		
42	1 055	27	2 559		
43	1 087	27	2 554	111	2 209
44	911	20	2 195		
45	768	19	1 523		
	5 025				
46	621	18	2 802		
47	498	22	4 418		
48	800	16	2 700	71	3 125
49	382	9	2 356		
50	271	6	2 214		
	2 272				
51	325	8	3 539		
52	642	12	1 809	21	2 504
	809				
TOTAL.	66,565			1314	1 974

MORTALITY of the whole Bombay Army, whether Serving in Scinde or elsewhere, at every Age, and with Averages for every Fifth Year

A G E S	P O P U L A T I O N	D E A T H S			
		A T E A C H A G E		I N P E R I O D S	
		Total	Mortality	Total	Mortality
	number	number	per cent	number	per cent
21	18 131	540	2 9 85		
22	9 761	156	1 2871		
23	9 650	202	2 1270	1353	2 634
24	8,109	217	2 6700		
25	6 649	178	2 6180		
	50 690				
26	4 946	121	2 4461		
27	3 782	95	2 5112		
28	2 455	56	2 2670	400	2 831
29	1 778	32	1 7446		
30	1 3 8	48	3 1533		
	14 340				
31	1 604	25	2 2892		
32	1 238	29	2 3022		
33	1 613	41	2 5463	212	2 672
34	2,108	57	2 7117		
35	2 154	69	3 2088		
	9 055				
36	2 592	50	2 1738		
37	2 989	66	2 2091		
38	2 710	82	3 0627	362	2 790
39	2,225	60	2 6266		
40	2,172	72	3 2610		
	12 988				
41	1 770	39	2 2150		
42	1 481	40	2 7453		
43	1 429	51	3 3689	205	2 961
44	1 234	38	3 0794		
45	1 069	37	3 4612		
	6,928				
46	844	24	2 8436		
47	689	26	3 7 36		
48	645	22	3 2659	93	2 252
49	481	12	2 4448		
50	254	13	2 6722		
	3,018				
51	264	10	3 7879		
52	745	17	2 2819	27	2 676
	1 009				
TOTAL	97 927			2673	2 729

The maximum strength (5024) of European troops in Bengal was in 1844, the minimum strength in 1827 being 3793 men. The maximum admission into hospital was 11,202 in 1841, out of a strength of 4751, so that each soldier, on an average, was more than twice in hospital during the year, and some three times. But I must disclaim any confidence in the admissions into hospitals as types of general sickness, for one soldier goes twelve times into hospital during the year, and in the total of admissions counts as twelve men, while another soldier remains in the hospital the whole twelve months, and counts only as one admission. No statistical law, therefore, can be legitimately deduced from the mere totals of admissions into hospital. The minimum admissions into hospital occurred in 1827, being only 927 out of a strength of 3793, so that not every fourth man went into hospital, although the mortality that year was great, amounting to  $8\frac{1}{2}$  per cent, indeed, more than one-third of those who went into hospital died, and the invaliding in that year was  $6\frac{1}{2}$  per cent. The sum of the admissions in twenty years was 158,160, on a strength of 88,380. The maximum of deaths from ordinary causes occurred in 1825, being 539 from a strength of 4512, producing the maximum mortality, inclusive of cholera, of the twenty years, namely,  $12\frac{1}{2}$  per cent, the invaliding of that year, however, being only 3.7 per cent. The minimum of deaths from ordinary causes was 4.50 per cent in 1829, from a strength of 4466. The maximum of deaths from cholera occurred in 1843, being 107 from a strength of 5016, or 2.13 per cent of strength. The absolute minimum number of deaths from cholera was in 1826, being twenty-three, or 0.53 per cent, but the *minimum per centage* of deaths upon strength was in 1830, when, although forty-two died from cholera, the per centage upon strength was only 0.24. Of the invaliding, I will speak not of the absolute numbers, but of the per centage only.

The maximum per centage of ordinary deaths occurred in 1825, when it amounted to 11.91 per cent, cholera adding only a half per cent to it, the minimum was in 1829, amounting to 4.5 per cent. The maximum from cholera was in 1843, amounting to 2.13 per cent, and the minimum in 1830, being 0.24 per cent. The maximum of deaths from all causes was  $12\frac{1}{2}$  per cent in 1825, and the minimum 5.16 in 1829. The greatest invaliding was 6.7 per cent in 1826, and the least 1.7 only in 1835. The mean of the ordinary deaths to the strength, for twenty years, was 6.23 per cent, from cholera only 1.15 per cent, from all causes 7.38 per cent, and the mean annual invaliding 3.6 per cent, so that, including mortality and invaliding, a regiment would be renewed in less than ten years.

The native troops of the Bengal army having served, for the most part in the same territories with the Europeans noticed above, it will be right, for the sake of comparison, to take them in succession. The maximum strength of the army was in 1825, amounting to 152,843 men; the minimum strength was in 1832,

when the army was reduced to 78,846 men The maximum admissions into hospital occurred in 1842, being 98,936 men out of a strength of 113,020, men, and it is remarked that the three greatest admissions are in the consecutive years 1842, 1843, and 1844, and were the details available at the present moment, I strongly believe that this apparently very unusual sickly state of the native army would be found to have originated in Scinde having been occupied by a portion of the Bengal army jointly with the Bombay troops during those years. Indeed, there is a sudden advance in the numbers who entered the hospitals from 42,632 in 1839, at the period of our entering Scinde, to 76,917 in 1840, when we were virtually masters of the province. The maxima of admissions both of Europeans and natives, are nearly coincident in time, but in no single year in the worst seasons, has it occurred to the native army to average an admission of each native soldier into hospital during the year The minimum of admissions was 30,903 in 1827, out of a strength of 130,313, so that less than every fourth man entered the hospital during the year Here then is an absolute coincidence in time with the European minimum admissions, and it would be well could we trace the peculiar atmospheric causes of this remarkable absence of disease; but of this I fear there is not any hope The sum of the admissions for twenty years was 1,100,735 from a strength of 2,046,425, so that the average admission was for each soldier one admission in two years

The maximum number of deaths from ordinary causes took place in 1825, being 2651, but this number does not indicate the maximum per centage of mortality The minimum, 950, was in 1837, but does not indicate the minimum per centage of mortality The maximum deaths from cholera was 361 in 1843, and the minimum 136 in 1840 The total deaths from cholera in twenty years was only 4486 The greatest invaliding took place in 1829, being 5070, and the smallest, 594, in 1835, the maximum per centage of ordinary deaths 2.38 in 1834, and the minimum 1.04 in 1843, and yet this, excepting 1833, was the maximum cholera year, 0.31 The minimum of cholera was in 1831, amounting to only 0.02 per cent of strength The average mortality from ordinary causes for twenty years, was 1.57, and from cholera only 0.22, and from both causes 1.79 per cent The invaliding was singularly small, the maximum being 4.7 per cent in 1829, the minimum 0.6 in 1825-6 and 1827, and the mean for twenty years 1.5 per cent

The following are the castes in the Bengal native infantry, composed of seventy-four regiments —

Christians	Mahomedans	Brahmins	Rajpoots	Hindoos of Inferior Description	GRAND TOTAL
number 106	number 12 421	number 24 640	number 27,058	number 13,920	number 80 249

So that the Hindoos, almost universally non-consumers of animal food, con-

stitute above eighty three per cent of the whole infantry The castes of the Bengal native cavalry are not specified in the returns

The Madras army follows next in order, but scarcely any part of it served in the same localities with the Bengal troops The maximum strength was 6083 in 1842, and the minimum 4350 in 1825 The maximum admission into hospital was 8134 out of a strength of 4481, so that each soldier, on the average, was received about twice into the hospital during the year The minimum admission was 5234, in 1832, from a strength of 5019, the average being rather more than an admission for each soldier during the year The maximum of deaths 455, as with the Bengal Europeans, took place in 1825, and the minimum was ninety-seven, in 1838, in which the deaths from all causes were only 2 12 per cent, the European troops for that year being nearly as healthy as if in their native land The maximum of deaths by cholera was sixty, in the year 1825, and the minimum only one, in the years 1835 and 1836 The greatest invaliding was 159, in 1826, and the least thirty four, in 1828 The maximum per centage of deaths from ordinary causes was 10 46, in 1825, and the minimum 1 97, in the years 1838 and 1844 The maximum per centage from cholera was 1 38, in 1825, and the minimum 0 02, in the years 1835 and 1836 The maximum per centage of deaths, inclusive of cholera, was 11 84, in 1825, and the minimum 2 12, in the years 1835 and 1838 The maximum invaliding was 3 47 in 1826, probably consequent upon the sickness of the preceding year, and the minimum invaliding was only 0 65 in 1828 The sum of the admissions into hospital for twenty years was 135,720, from a strength of 101,210, showing a considerably greater degree of healthiness, as far as admissions are a test, than in the European troops of Bengal The total number of ordinary deaths was 3460, from cholera 432, invaliding 2101 The mean annual per centage mortality of ordinary deaths for twenty years was 3419, from cholera only 0 427, instead of 1 15, as in the Bengal Europeans, and the mean annual per centage of deaths from all causes was 3 85, instead of 7 38, as in Bengal The mean invaliding was 2 07 per cent The mortality and invaliding combined are less than six per cent per annum, so that a regiment would only be renewed in about seventeen years instead of ten, as in Bengal The remarkable discrepancy between the healthiness of the European troops in the Madras territories and those of Bengal needs explanation Whether it originates in physical or moral causes, whether in the atmosphere or the habits and treatment of the men, should be questions for grave investigation

The maximum strength of the native army of Madras, was 71,488 in 1826, and the minimum strength 48,571 in 1837

The mortality from all causes was 2 09, being greater than in Bengal The invaliding was 1 96 per cent per annum

## CASTES of the Madras Troops

CAVALRY								INFANTRY							
183-8		1838-6		1839-40		1841-2		1837-8		1838-9		1839-40		1840-1	
Moonshans	Other Castes.	Moonshans	Other Caste	Moonshans.	Other Caste	Moonshans	Other Caste	Moonshans	Other Caste	Moonshans	Other Caste	Moonshans	Other Caste	Moonshans	Other Caste
No	No	No	No	No	No	No.	No	No	No	No	No	No	No	No	No
3286	476	3212	473	3102	492	3123	499	18685	32714	16498	34754	1768	2340	18100	32156
7 to 1		7 to 1		7 to 1		6 to 1		1 to 14		1 to 14		1 to 14		1 to 14	

The maximum strength of the European troops of the Bombay army was 5022 in 1843, and the minimum 1727 in 1826. The maximum admissions into hospital was 6266 from a strength of 3667, but in 1837 the admissions were three times the strength. The minimum admissions were 1284 in 1841, from a strength of 3479, so that little more than one third of the men entered the sick lists. The greatest absolute number of deaths from ordinary causes was 270 in 1843, giving a per centage of 5.37, which, however, was little more than half the per centage in 1826, when only 179 died. The minimum of deaths was forty six in 1832, giving also the minimum per centage 1.89, during twenty years. The largest number of deaths from cholera was ninety in 1842, giving also the greatest per centage of loss from that fearful disease, namely, 1.91 per cent. In the year 1835 there was not a single death from cholera, but this was the only exception in twenty years, although there were eleven years in which the annual loss from cholera only varied from two to eight. The maximum per centage of ordinary deaths was 10.36 in 1826, and the least 1.89 per cent in 1832. The greatest and least loss from cholera have been already stated. The maximum loss, cholera inclusive, was 11.52 per cent in 1826, and the minimum 2.43 per cent in the years 1830 and 1832, the greatest invaliding was 5.34 in 1831, and the least 0.09 in 1834. The sum of the strength for twenty years was 50,987, the sum of admission into hospital 88,720. The total deaths from ordinary causes 2301, and from cholera 288. The mean per centage deaths from ordinary causes for twenty years was 4.51, and from all causes 5.07 per cent, the mean invaliding 3.16 per cent. The mortality and invaliding combined are more than eight per cent, so that a regiment would be renewed in about twelve years. Comparing the mortality of the European troops of the three presidencies, we find that Bengal loses the greatest number from ordinary causes, 6.23, and from cholera 1.15 per cent,—total, 7.38 per cent, Madras loses the least from ordinary causes, 3.42 per cent, and from cholera 0.43,—total, 3.85 per cent, about the half of that of Bengal. The loss at Bombay, 5.07 per cent, is somewhat more than at Madras. The mean loss of the European troops of all the presidencies

is 4.68 per cent from ordinary causes, 0.72 per cent from cholera, and from all causes 5.41 per cent, the mean invaliding 2.88 per cent.

The maximum strength of the native army of Bombay was 49,873 in 1844, the minimum, 25,782 in 1833. The maximum admissions into hospital were 49,418 in 1844, from a strength of 49,873, so that on the average nearly every soldier passed through the hospital, a most unusual circumstance for the native army, and this characterises the returns for 1839, the year the Bombay troops occupied Scinde. The minimum of admissions was 20,652 in 1833, from a strength of 25,782. The greatest absolute number of deaths, exclusive of the mortality of the troops in Scinde, which is not given for the years 1842, 1843, and 1844, from ordinary causes was 595 in 1844, or 1.19 per cent, but this does not give the greatest per centage of deaths, which, with 536 absolute deaths in 1839, gave a per centage of 1.87, the minimum of deaths was 111 in 1843, not including the deaths in Scinde. The greatest number of deaths from cholera was 237 in 1825, and the next year had the next greatest number, 183. Indeed, these two years appear to have been peculiarly fatal throughout India for Europeans and natives, both in ordinary diseases and cholera. The maximum invaliding was 2507 in 1830, giving the maximum per centage 8.08 for twenty years, the smallest number was 448 in the next year. The maximum per centage of deaths from ordinary causes was 1.87 in 1839, and least 0.35 per cent. The maximum from cholera was, at the worst, little more than a half per cent, 0.58 in 1825, and the least was 0.007 in 1836, there being only two deaths in the whole army of 28,438 men. The maximum per centage of deaths, cholera inclusive, was 2.38 in 1839, but, with this exception, the two next greatest maxima were in the years 1825 and 1826. The minimum was 0.69 per cent in 1843 for a part of the army. The sum of the strength was 638,978, the sum of admissions into hospital 586,047. The total number of deaths from ordinary causes 6455, from cholera 1796, the invaliding 21,155. The mean per centage of deaths from ordinary causes, for twenty years, was 1.01 per cent, from cholera 0.26, and deaths, inclusive of cholera, 1.29 per cent, mean invaliding 3.31 per cent.

Comparing the mortality of the native troops of the different armies, we find that those of Bombay not serving in Scinde, suffer least from ordinary causes, 1.01 per cent, while those of Bengal and Madras lose respectively 1.57 and 1.51 per cent. With respect to cholera, Bengal suffers least with the native troops, 0.22, though most with the European, 1.15 per cent. Bombay loses only 0.28 per cent from cholera, while Madras loses more than double, 0.58. In the mortality from all causes, inclusive of cholera, Bombay suffers least, 1.29 per cent, Madras most, 2.09 per cent, and Bengal is intermediate, 1.79 per cent. The invaliding is greatest in Bombay 3.31, and least in Bengal, 1.50 per cent.

The mean mortality for twenty years, for all the native troops of India, from ordinary causes, is 1.46 per cent, from cholera 0.34, and cholera inclusive, it is 1.80 per cent. The mean invaliding for all the native troops of India is 1.93 per cent

## EUROPEANS—Bengal Presidency

YEARS	Average Strength	Admissions into Hospital during the Year	Deaths from Ordinary Causes	Deaths by Cholera	In Invalid	Ratio per cent of Ordinary Deaths to Strength.	Ratio per cent of Deaths by Cholera to Strength	Ratio per cent of Deaths generally to Strength	Ratio per cent of Number Invalided to Strength
	number	number	number	number	number	per cent.	per cent.	per cent.	per cent.
1852	4 519	8 3 8	539	25	107	11.94	0.55	12.50	3.7
1853	4 357	6,465	265	22	205	6.08	0.52	6.60	6.7
1857	3 253	2,917	291	24	248	7.06	0.80	8.56	6.5
1858	4 177	7 06	220	26	217	5.01	0.62	6.03	5.2
1859	4 486	5 928	201	29	205	4.50	0.65	5.16	4.9
1860	4 556	8,499	235	46	202	5.16	0.54	6.19	4.4
1861	4 257	7 064	274	26	154	5.75	0.60	6.53	3.3
1862	4 348	7 066	228	47	198	5.25	1.08	6.83	2.4
1863	4,220	8 379	373	51	85	0.44	1.20	7.54	2.0
1864	3,777	8,136	285	68	76	7.42	1.65	9.11	3.0
1863	4 084	7 585	270	48	70	6.61	1.17	7.78	1.7
1866	4 150	7 585	210	43	89	4.93	1.01	5.94	2.0
1867	4 194	6,171	210	39	129	4.99	0.90	5.83	3.0
1868	4 208	6,514	214	26	149	5.53	1.74	8.27	3.4
1869	4 098	6 449	234	65	113	6.19	1.58	7.78	2.7
1840	4 754	6 75	246	31	238	6.01	1.07	7.08	5.9
1841	4,751	11 302	387	91	220	6.04	1.88	7.35	4.6
1842	4 848	10 423	368	47	147	6.21	0.99	7.22	3.0
1843	5 016	8 330	268	107	166	6.04	2.13	8.07	3.3
1844	5 034	8 929	290	67	132	5.6	1.72	7.43	3.0
TOTAL.	88,980	158 160	5510	1021	3227	6.23	1.18	7.38	3.6

## NATIVES—Bengal

YEARS	Average Strength.	Admissions into Hospital during the Year	Deaths from Ordinary Causes	Deaths by Cholera.	In Invalid	Ratio per cent of Ordinary Deaths to Strength.	Ratio per cent of Deaths by Cholera to Strength	Ratio per cent of Deaths generally to Strength	Ratio per cent of Number Invalided to Strength
	number	number	number	number	number	per cent.	per cent.	per cent.	per cent.
1855	152,443	23 191	2,651	216	938	1.75	0.14	1.87	0.6
1845	144,302	56 730	1 45	189	931	1.18	0.12	1.30	0.6
1827	13 313	30,103	1 643	137	847	1.20	0.10	1.36	0.6
1828	110 757	21 425	1 742	195	3,259	1.45	0.16	1.62	1.8
1843	106,352	40 858	1 626	128	3,079	1.28	0.14	1.57	4.7
1850	92,028	47 139	1 668	236	3 443	1.78	0.15	2.23	3.6
1831	83,748	39 153	1 585	181	1 413	1.82	0.09	1.25	1.6
1824	78 866	46 722	1 318	238	1 323	1.66	0.29	1.20	1.6
1813	76 703	38 143	1 039	2 0	1 069	2.0	0.27	2.34	1.3
1824	70 482	63,805	1 887	242	2,048	2.38	0.30	2.61	2.5
1833	79 042	53 584	1 244	217	594	1.57	0.27	1.84	0.7
1836	77 597	31 116	1 430	223	992	1.76	0.2	2.01	1.1
1837	80 034	2 780	930	183	915	1.12	0.23	1.49	1.1
1838	82 812	46,254	1 684	187	1 1 8	2.03	0.22	2.25	1.4
1839	94 363	48 632	1 893	240	802	2.02	0.2	2.24	0.8
1840	102 57	76,817	1 138	126	1 328	1.16	0.12	1.22	1.2
1841	103 782	75,636	1 413	291	1 109	1.33	0.2	1.60	1.1
1842	112 020	98 531	1 897	239	1 256	1.68	0.22	1.84	1.1
1843	114 788	95 323	1 605	361	1 428	1.34	0.21	1.71	1.2
1844	127 051	51,751	1 418	329	1 435	1.17	0.27	1.44	1.1
TOTAL.	2,946,425	1 100 735	29 170	4 488	20 443	1.37	0.28	1.70	1.2



EUROPEANS—Madras Presidency

YEARS	Average Strength	Admissions into Hospital during the Year	Deaths from Ordinary Causes	Deaths by Cholera	Invalided	Ratio per cent of Ordinary Deaths to Strength	Ratio per cent of Deaths by Cholera to Strength	Ratio per cent of Deaths to Strength	Ratio per cent of Number Invalid to Strength
	number	number	number	number	number	per cent	per cent	per cent	per cent
1855	4,350	7,842	4,557	50	108	10.450	1.170	11.620	9.488
1856	4,318	7,105	4,211	11	159	7.058	0.241	7.299	8.433
1857	4,382	8,625	237	6	97	5.158	0.120	5.278	1.247
1858	5,210	7,143	229	13	44	4.390	0.249	4.639	0.531
1859	5,007	7,181	179	3	114	3.035	0.050	3.085	2.476
1860	5,215	7,300	140	22	124	2.650	0.607	3.256	2.355
1861	5,325	5,86	198	41	120	3.718	0.769	4.488	2.33
1862	5,019	6,334	341	33	76	2.809	0.777	3.586	1.314
1863	4,725	7,288	167	46	81	3.523	1.018	4.541	1.709
1864	4,481	8,124	158	2	85	3.523	0.044	3.570	1.896
1865	4,749	6,921	160	1	84	2.405	0.021	2.426	1.768
1866	4,574	5,77	168	1	95	3.661	0.021	3.682	2.076
1867	4,648	5,368	146	19	122	3.185	0.499	3.684	2.081
1868	4,901	5,371	97	7	69	1.970	0.142	2.112	1.407
1869	4,750	6,322	102	37	126	2.172	0.574	2.747	2.683
1870	6,045	7,570	139	36	121	2.355	0.516	2.871	2.650
1871	5,785	8,009	145	6	126	2.506	0.086	2.592	2.281
1872	6,083	8,099	160	41	130	2.630	0.674	3.304	2.117
1873	6,917	6,06	127	13	121	2.146	0.210	2.356	2.044
1874	5,863	5,744	110	37	60	1.971	0.628	2.600	1.529
TOTAL	101,910	135,76	3,160	432	2,101	3.419	0.427	3.846	2.070

NATIVE TROOPS—Madras

YEARS	Average Strength	Admissions into Hospital during the Year	Deaths from Ordinary Causes	Deaths by Cholera	Invalided	Ratio per cent of Ordinary Deaths to Strength	Ratio per cent of Deaths by Cholera to Strength	Ratio per cent of Deaths to Strength	Ratio per cent of Number Invalid to Strength
	number	number	number	number	number	per cent	per cent	per cent	per cent
1862	61,947	73,233	1,927	72	1,183	3.069	1.228	4.297	3.362
1863	71,484	71,617	1,601	24	2,066	2.210	0.111	2.320	2.867
1864	61,055	33,043	1,09	393	68	1.62	0.460	1.972	0.952
1865	64,396	40,848	61	369	1,499	1.161	0.571	1.732	2.327
1866	5,852	32,168	628	313	970	1.049	0.355	1.403	1.69
1867	50,1	30,45	383	126	171	1.097	0.282	1.250	1.137
1868	50,41	20,746	540	91	1,181	1.071	0.527	1.604	1.062
1869	5,476	27,131	626	335	608	1.084	0.579	1.663	1.442
1870	41,100	67,118	775	25	673	1.901	1.107	2.727	1.427
1871	45,568	1,504	974	58	311	1.98	0.117	2.096	0.674
1872	49,15	41,007	721	2	830	1.479	0.001	1.48	1.703
1873	49,16	7,102	1,206	27	342	2.453	0.053	2.506	0.91
1874	48,71	26,92	736	251	1,220	1.437	0.729	2.166	1.511
1875	46,30	37,130	710	30	1,127	1.481	1.05	2.47	2.216
1876	51,76	43,713	657	249	1,305	1.266	1.190	2.456	2.54
1877	60,709	4,451	697	122	1,044	1.131	0.200	1.331	0.3
1878	61,356	48,427	673	241	1,119	1.119	0.379	1.554	1.249
1879	63,51	53,174	1,116	711	1,841	1.602	1.165	2.768	2.774
1880	65,133	4,08	841	803	1,536	1.291	1.355	2.646	2.10
1881	64,182	48,599	939	519	61	1.45	0.804	2.254	1.184
TOTAL	1,136,20	6,122	18,688	6,977	5,479	1.512	0.583	2.095	1.663

RETURN to an Order of the House of Commons dated 16th of June, 1845, showing the Sickness, Mortality, and Invaliding, in the Honourable East India Company's Troops (Natives and Europeans), in the Bombay Presidency, from the Year 1825 to 1844, inclusive — Bombay, 17th of July, 1846

## EUROPEANS — Bombay

Y E A R S	Average Strength	Admission into Hospitals during the Year	Deaths from Ordinary Causes	Deaths from Cholera	Invalids	Ratio per cent of Ordinary Deaths to Strength	Ratio per cent of Deaths from Cholera to Strength	Ratio per cent of Deaths generally to Strength	Ratio per cent of Number Invalided
	number	number	number	number	number	per cent	per cent	per cent	per cent
1825	1,099	2,363	89	1	4	8.04	0.09	0.81	2.94
1826	1,727	4,154	170	20	85	10.36	1.15	1.21	3.18
1827	1,635	4,777	214	2	21	13.11	0.12	1.23	4.02
1828	2,227	6,178	147	15	31	6.60	0.67	7.24	2.92
1829	2,216	5,418	109	1	118	4.92	0.04	4.96	2.24
1830	4,076	4,201	58	2	85	2.07	0.07	2.14	2.29
1831	2,243	4,287	73	3	120	3.24	0.13	3.37	3.19
1832	4,434	5,461	46	13	35	1.03	0.29	1.32	1.43
1833	2,185	5,411	68	8	103	3.11	0.36	3.47	4.67
1834	2,151	4,719	74	2	2	3.41	0.09	3.50	0.97
1835	1,900	4,716	98	0	89	5.18	0	5.18	4.19
1836	2,567	4,891	39	1	13	1.52	0.04	1.56	0.95
1837	1,861	1,930	101	12	91	5.42	0.64	6.06	3.89
1838	2,166	4,425	87	7	40	3.99	0.32	4.31	1.15
1839	2,648	3,157	134	81	60	5.06	3.02	8.08	2.93
1840	2,374	3,606	123	26	62	5.19	1.10	6.29	2.69
1841	3,479	1,364	61	4	27	1.75	0.29	2.04	0.73
1842	4,000	2,039	163	50	121	4.07	1.25	5.32	2.51
1843	6,022	4,607	270	2	201	4.49	0.03	4.52	4.02
1844	3,167	6,366	190	48	80	5.99	1.50	7.49	2.19
<b>TOTAL</b>	<b>50,987</b>	<b>89,730</b>	<b>2,301</b>	<b>288</b>	<b>1,611</b>	<b>4.52</b>	<b>0.65</b>	<b>5.17</b>	<b>3.160</b>
<b>Bombay</b>	<b>50,297</b>	<b>88,730</b>	<b>2,301</b>	<b>288</b>	<b>1,611</b>	<b>4.51</b>	<b>0.65</b>	<b>5.16</b>	<b>3.160</b>
<b>Madras</b>	<b>88,980</b>	<b>138,160</b>	<b>6,618</b>	<b>1611</b>	<b>2727</b>	<b>7.45</b>	<b>1.17</b>	<b>8.62</b>	<b>3.60</b>
<b>Madras</b>	<b>101,210</b>	<b>138,720</b>	<b>3,460</b>	<b>432</b>	<b>2,101</b>	<b>3.41</b>	<b>0.32</b>	<b>3.73</b>	<b>2.676</b>
	<b>860,577</b>	<b>369,600</b>	<b>11,271</b>	<b>1,741</b>	<b>6,939</b>	<b>4.68</b>	<b>0.74</b>	<b>5.40</b>	<b>3.894</b>

## NATIVES — Bombay

Y E A R S	Average Strength	Admission into Hospitals during the Year	Deaths from Ordinary Causes	Deaths from Cholera	Invalids	Ratio per cent of Ordinary Deaths to Strength	Ratio per cent of Deaths from Cholera to Strength	Ratio per cent of Deaths generally to Strength	Ratio per cent of Number Invalided
	number	number	number	number	number	per cent	per cent	per cent	per cent
1825	40,711	73,041	485	237	556	1.19	0.58	1.73	2.26
1826	29,430	37,151	322	163	740	1.09	0.55	1.64	1.77
1827	3,000	30,633	476	33	501	1.57	0.04	1.61	3.95
1828	27,630	28,460	323	65	388	1.17	0.23	1.40	2.80
1829	33,200	32,617	316	21	1,852	0.95	0.06	1.01	5.60
1830	31,004	28,537	339	112	3,507	1.09	0.36	1.45	8.98
1831	31,178	2,308	197	48	523	0.63	0.15	0.78	1.35
1832	38,041	33,471	176	63	9,040	0.46	0.16	0.62	2.42
1833	28,782	20,609	342	116	714	1.19	0.41	1.60	2.69
1834	21,740	24,506	325	96	1,981	1.49	0.44	1.93	5.16
1835	25,724	2,308	216	28	1,602	0.84	0.11	0.95	3.04
1836	24,438	24,223	275	3	1,150	1.13	0.01	1.14	4.03
1837	24,442	21,838	225	113	790	0.92	0.46	1.38	2.76
1838	26,158	2,605	26	22	664	0.08	0.08	0.16	3.76
1839	28,772	30,104	26	148	687	0.09	0.51	0.60	2.95
1840	30,664	29,000	544	131	826	1.77	0.42	2.19	3.25
1841	20,039	21,635	703	34	723	3.46	0.17	3.63	5.50
1842	27,432	26,375	702	158	1,244	2.56	0.57	3.13	4.93
1843	31,428	28,500	1,111	100	1,438	3.54	0.32	3.86	4.97
1844	49,873	4,418	505	79	822	1.28	0.16	1.44	1.78
<b>TOTAL</b>	<b>638,775</b>	<b>860,017</b>	<b>6,466</b>	<b>1,706</b>	<b>21,153</b>	<b>1.01</b>	<b>0.24</b>	<b>1.25</b>	<b>3.911</b>
<b>Bombay</b>	<b>638,975</b>	<b>860,047</b>	<b>6,465</b>	<b>1,706</b>	<b>21,153</b>	<b>1.01</b>	<b>0.24</b>	<b>1.25</b>	<b>3.911</b>
<b>Madras</b>	<b>2,016,225</b>	<b>1,106,735</b>	<b>32,120</b>	<b>4,488</b>	<b>30,143</b>	<b>1.57</b>	<b>0.40</b>	<b>1.97</b>	<b>1.60</b>
<b>Madras</b>	<b>1,106,260</b>	<b>904,325</b>	<b>18,088</b>	<b>6,076</b>	<b>23,719</b>	<b>1.64</b>	<b>0.67</b>	<b>2.31</b>	<b>1.968</b>
	<b>8,861,660</b>	<b>2,991,107</b>	<b>56,713</b>	<b>12,260</b>	<b>76,077</b>	<b>1.461</b>	<b>0.32</b>	<b>1.783</b>	<b>1.934</b>

\* The returns of the sickness and mortality of the troops in Sindh are incomplete for these years

*Invalid Pension Establishments*—The third portion of this paper contains statements of the transfers to, and casualties on, the invalid pension establishments, of the average length of service before transfer, average age at the time of decease, and number of years each grade remained on the pension list, for the years 1843—4 and 1844—5 for Bengal, and for Madras for the years 1842—3 and 1843—4. These returns confirm, in a remarkable manner, the general healthiness of natives serving in the army in India, and as such are efficient auxiliaries to the deductions respecting the value of life furnished by the mortality returns of the effective troops.

The headings of the columns are—Number of Transfers,—Average Service before Transfer,—Number of Casualties,—Rate per Cent of Casualties on the whole Establishment,—Average Age at the time of Decease,—and, finally, Average number of Years in the Pension Establishment. And every rank on the pension list, from the subedar, or native captain, down to the groom and the grass-cutter, come under these several headings. The total number of transfers, of all ranks, to the pension establishments in 1843—4 in Bengal was 1340, and in 1844—5 the number was 1583, in the former year seventy-eight subedars or native captains, in the latter 126, the average period of service before pensioning of these officers being forty three years and five months and forty one years and eleven months respectively. The number that died in 1843—4, out of the whole number of subedars, was seventy nine, and in 1844—5 it was seventy, and the average age of these parties at the time of their death was seventy two eleven-twelfth years and sixty-nine one-sixth years respectively, and they had averaged thirteen five-twelfths and twelve one-sixth years respectively on the pension list before decease. Details are given for the several ranks, ten in number, the sepoy, or common soldier, in 1844—5 averaged about twenty years' service before invaliding (the non-commissioned ranks much longer), the average age at the time of decease being fifty two five-sixths years, having been eleven and a quarter years on the pension list. The average per centage casualties on the whole pension establishment for 1843—4 was 4.29 per cent, and for 1844—5 it was 3.57 per cent. A continuation of the return gives the total numbers on the pension establishment, the family pension establishment, and the wound pension establishment, of every rank, remaining on the 30th of April of each year, together with the casualties, &c, during the year. The total number on the invalid pension establishment, of all ranks, on the 30th of April, 1844, was 24,643, on the family pension establishment 5526, and on the wound pension establishment 200. On the 30th of April, 1845, the numbers on these several establishments were respectively 25,289, 8116, and 338.

The annual expense of the native pensioners in Bengal was in

Y E A R S	Value	Value
	rupees	£
1840-41	38 55 518	182 554
1841-42	18 80 015	386 864
1842-43	1 92 462	179 246
1843-44	10 27 350	199 680
1844-45	20 04 199	200 112

The Madras return of the pension establishment of the Madras army is of a similar character with the preceding, but it is for the years 1842-3 and 1843-4. The number of deaths of subedars in those years was fifty-one and fifty respectively, having served previously to invaliding  $37\frac{1}{2}$  years, their average ages at the time of death being  $62\frac{1}{2}$  and sixty-eight for the several years, and having been on the pension list  $10\frac{1}{2}$  and  $11\frac{1}{2}$  years before death. The average per centage of annual deaths of the whole pension list for the years 1842-3 and 1843-4 was 5.87 and 5.71 respectively, showing, as in the mortality of the effective troops, a considerable increase over the mortality of the native troops of the Bengal and Bombay armies. The average period of service of the sepoy before his transfer to the pension establishment, would appear to be twenty three years and  $3\frac{1}{2}$  months for 1843-4, the average age of 778 deaths for this year was fifty-six years, but for the preceding year it is stated to be seventy-three years of 774 deaths—probably a graphical error.

The number of military pensioners, of all classes, in 1843-4 was 26,241, and the charge for them 18,75,457 rupees, or 187,545/ sterling. In 1844-5 the number was 26,902, and the charge 18,98,066 rupees, or 189,806/. On the 30th of April, 1845, the number was 27,959, and the charge 20,45,449 rupees, or 204,549/. The progress from the years 1834-5 has been from 23,900 pensioners, at a charge of 17,93,158 rupees, or 179,315/ to the number and charge above stated in 1845.

Colonel Sykes very properly observes, that the production of such elaborate documents as those he has handled indicates no ordinary efficiency in the departments in India whence they emanate.

"I now venture upon some reflections suggested by the tabular statements. I am so much of an utilitarian, that I am disposed to view labour, both mental and physical, that has not some practical object—some definite view—some proximate or remote applicability to the use of the community or to individuals—as labour lost, or, at the least, misapplied and now, on the conclusion of my toils, I am induced to exclaim, as I have done on former occasions, 'Cui bono?' Happily the question can be answered satisfactorily. Independently of the mass of important facts which the official returns embody, the vital statistics of the Bombay army at each year of life, from twenty to fifty two, will occasion a complete revolution in opinion with respect to the value of native life in India, and give to the life insurer positive data for the calculation of tables of the value of life, which tables may justify the introduction of the important system of life assurance at very low premiums, amongst the natives of India, a system if existing I believe almost unheeded and scarcely acted upon, or, if acted upon only to an exceedingly limited extent, from the ignorance of the value of native life occasioning the

exaction of high premiums. It, therefore, the publication and diffusion of these mortality returns should occasion an extension of the system of life assurance amongst the natives, it would confer a blessing upon that portion of the community who have their salaries only as servants of the state, or of mercantile establishments, as a means of support and of providing for their families. With respect to the mortality of the Bombay army, it is observed that the mortality amongst the troops serving in Scinde is double that of the troops not serving in Scinde. Nevertheless, in spite of this disadvantageous circumstance the mortality is remarkably small for the tropics, as compared with that of similar ages in Europe."

It would appear that an examination of the gross mortality in England and Wales, between the ages of twenty one and fifty two, shows that it is coincident with the specific mortality at age thirty nine, and assuming that such will be the case in the other tables referred to in this paper, we are led to the following conclusion that during the three years 1842, 1843, and 1844, the mortality of the whole Bombay native army, including that in Scinde, was 2 729 per cent, being somewhat greater than that for the city of Glasgow at age thirty-nine, which is 2 413 per cent. Again, the mortality of that portion of the Bombay army, which had been in Scinde, being 4 333 per cent, is more than double the mortality of the Northampton table, but not quite double that of the city of Glasgow at the same ages. But if the mortality of that portion of the army which had not been in Scinde during those three years be taken, it will be found to be only 1 974 per cent, being nearly coincident with the mortality for France, and below that of the Northampton table or the city of Glasgow. In connexion with this conclusion, however, it is necessary to take into view another fact. In the two years, 1842 3, the following six regiments were in Scinde, but were not there during the year 1844.\* During the latter year the mean strength of these regiments was 5557, and the deaths 238, or 4 283 per cent, differing very little from the average mortality of the regiments in Scinde. It is thus seen that the mortality of the native army said to be out of Scinde is increased from including regiments just returned from that province, and hence it follows, that in order to arrive at the true mortality of the native army of Bombay, exclusive of those in Scinde, some correction will be necessary. During the year 1844 the average strength of the regiments actually out of Scinde was 25,265, and the deaths 566, or about 2 248 per cent. If from this be deducted the six regiments returned from Scinde in the year preceding the mean strength of the residue will be 19,708, the deaths 328, giving a reduced mortality of 1 664 per cent. So that the influence of those regiments just returned from Scinde was to increase the rate of mortality during the year 1844, 584 per cent. I am not possessed of the information at this moment to show what regiments in the year 1842 had returned from Scinde during the preceding year, but if it be allowed that other years will be similarly affected as

\* Third regiment light cavalry 1st or grenadier regiment 6th 15th, 20th and 21st regiments native infantry

the above, in order to determine the true mortality of those regiments which have never entered Scinde, it will be necessary to deduct from the results 584 per cent. If this be done, the mortality of the Bombay native army will be only 1 390 per cent, approaching nearly to the mortality for Ireland and Sweden, not widely different from the mortality for the male population of England and Wales, and under the mortality of Dundee, France, the Northampton table, and the city of Glasgow. This most important and interesting result deduced from the mortality at specific ages during the years 1842, 1843, and 1844, is confirmed by the gross mortality over a period of twenty years, as already alluded to, and from which it appears that the mortality in that period was not more than 1 291 per cent.

It will be found that at age twenty-one the expression is 24 534 years for the whole army, for that portion in Scinde only 16 477 years, but for the residue, or that section which had not been in Scinde during those three years, it is 30 697 years, while for the city of Glasgow it is 29 423, being upwards of one year and a *quarto* in favour of the native army. The same expression for the male population of England and Wales is 43 410 years.

Again, the equation of life, for which the probability of surviving *two to one*, and at age thirty will be seen to be 14 307 for the whole army, only 9 484 for Scinde, and for the residue as much as 18 247 years. The same term for Glasgow is 16 969 years, and for England and Wales 27 699.

At age forty it will be seen to be 9 058 for the whole army, only 5 728 for Scinde, but 10 653 for the part of the army out of Scinde. For Glasgow the expression is 9 591, and the whole male population of England and Wales 17 375 years.

It thus appears that over those ages the value of life of the army in Scinde is only about one half of that out of it, and also that the value of life in Glasgow is also less than in the portion of the army out of Scinde.

This method of representing the relative value of life, confirms the results arrived at by the other tests already given.

Another important result from the compilation of this paper is the necessary removal of all rational grounds for that panic terror which has hitherto obtained respecting the intensity and extent of that assuredly very shocking malady Asiatic cholera. In consequence of the unexpectedness with which the disease appears in certain localities, the devastation it commits, sparing neither age nor sex, the robust nor the feeble, the daring nor the timid, the unthinking and the alarmist are led to characterise these local manifestations as types of the general operation of this appalling disease, but when we calmly cast our eyes over the mortality tables of the whole Indian army, whose annual average strength for twenty years was 12,028 Europeans and 194,082 natives, we find that the annual average loss from cholera for twenty years was—

C O U N T R I E S	Europeans	C O U N T R I E S	Natives
	number		number
Bengal	31	Bengal	221
Madras	22	Madras	848
Bombay	14	Bombay	90
TOTAL for India	67	TOTAL for India	959

The European troops losing, in fact, only 0·724 per cent per annum, and the native troops only 0·342 per cent per annum. The maximum intensity of the cholera was only 2·13 per cent in 1843 in twenty years, and amongst the native soldiery during that period the maximum intensity scarcely exceeded the half of that amount. And yet the recent shocking details from one locality in Scinde (Kurrachee) struck the public mind in India and Europe with amazement and horror, and such impressions would be justifiable were, unhappily, these visitations to be of frequent or extended occurrence, but the preceding tables prove the contrary, and relieve us from our terrors.

Another fallacy which these tables dissipate is the asserted superiority of the European over the native soldier in resisting the influence of cholera in the first instance, and in the power of rallying from its effects when attacked. The European, it is said, is a robust man than a native; his fibre is more rigid, and his stamina stronger, the native being comparatively feeble and washy from his habits of life, and from the insufficient nourishment of his farinaceous or vegetable food. Now the tables show the very reverse to be the case. In no year whatever under the Bengal Presidency has the per cent rate of mortality from cholera of the native troops approached that of the Europeans, nearly the same may be said of the Bombay cholera mortality. At Madras there is a difference, the mean mortality of the natives from cholera being rather more than a half per cent per annum, and that of the Europeans a trifle less than a half per cent. The final results of cholera mortality, as already shown, are, for the European troops of all India, 0·724 per cent, and for the natives, 0·342 per cent per annum. No doubt the reckless life of the common European in India, and the over-stimulus of his animal food and alcoholic beverage, predispose him much more than the native soldier to all diseases; he is also a much greater sufferer from disease than the European officer, and of this we have sufficient evidence in the report of Mr Griffith Davis upon the Bengal Military Fund, in which he shows that the per cent mortality of all ranks of European officers of the Bengal army for eight years, from 1824 to 1832, was 3·77 per cent for the unmarried (only the half of the European soldier in Bengal), while that of married officers for the same period was only 1·74 per cent, and that for the European soldier in Bengal, as has been shown, was 7·38 per cent. This different mortality may very fairly be attributed to the more temperate mode of living of the European officers than that of the men, but from whatever cause, it is plainly demonstrated that European soldiers are greater sufferers from cholera than native soldiers, and this leads me to another great fact illustrated by these tables,

namely, the remarkable general health of the native troops, manifesting, however, distinctive features in the different native armies of the three Presidencies, to which I shall advert. The percentage mortality of the three native armies for twenty years is shown to be Bombay, 1.291 per cent, Bengal, 1.79 per cent, and Madras, 2.095 per cent. Now, even the highest of those rates is less than that of the English foot guards, 2.16 per cent, less than that of the troops at Gibraltar 2.20 per cent, less than that of the troops in the Ionian Islands 2.83 per cent, and less than that of the troops in Canada 2.00 per cent, but the average mortality of the Bombay army is less than that of any European troops whatever, excepting only the Prussian, which is stated to be only 1.17 per cent, this low average, however, is understood to be owing to the extreme youth of the men, who have enlisted young, and have only to serve five years. The lowest rates in the British army are—household cavalry, 1.45 per cent, dragoon guards and dragoons, 1.53 per cent, and the troops in Ireland and the Cape of Good Hope, both 1.55 per cent. Now to what cause or causes is to be attributed the remarkable discrepancy between the health of the native and European armies in India? All live under the same climate, are exposed to the same vicissitude of seasons, the same alternations of temperature, and are engaged in the same toils, the European is, if any thing, better lodged in his lofty barracks than the native in his lowly hut, and is certainly better fed, in the usual acceptation of good feeding, his animal food being daily washed down with grog or beer, while most of the natives subsist on farinaceous or vegetable matters, washed down with water only. But independently of these contrasts between the health of Europeans and natives, how are we to account for the singular discrepancy between the health of the European troops serving under the Bengal Presidency and those serving under the Madras Presidency, the mortality of the former being 7.38 per cent, and that of the latter only 3.846 per cent, so that a European regiment in Bengal is renewed in ten years, in Bombay in twelve years, and in Madras in seventeen only? And in contrast to this we find the mortality of the native army of Madras 2.095 per cent, that of Bengal 1.79, and that of Bombay only 1.29 per cent. Unquestionably, over the vast continent of India there must be and are numerous local physical circumstances, marshes, jungles, insufficient drainage, sandy arid plains, or rank vegetation, to affect the atmosphere of those particular localities, and to operate upon the health of the residents in such places. But this will not meet all the bearings of the broad question. Why is the health of the European troops so universally inferior to that of the native troops serving with them, whose health, in fact, is superior, or at least equal to that of the European troops in their own land? I will not say that the question is absolutely solved by the reply, "Habits of life," but I will say, reasoning from analogy, that the reply goes a great way to solve it. The European soldier



in India is over-stimulated by food, over-stimulated by drink, and under stimulated in mind and body. The European soldier eats a quantity of animal food every day of his life, he drinks a quantity of alcohol every day of his life to the amount of a bottle of spirits in five days, two drams being served out to him daily, and he has not any mental, and little bodily exercise. Happily the pernicious practice is recently discontinued, but time was when the European soldier was compelled to take his dram by eight o'clock in the morning, with the thermometer varying from seventy to ninety degrees or more, at different seasons of the year, leaving him in a state of nervous irritation and thirst, which could only be relieved as he thought by further potations, indeed, I have been assured within the last few days by a pensioned artillery staff serjeant, who never drank in India, and was only in hospital five days during twenty-one years' service, that he has known, out of a detachment of 100 artillerymen, no less than eight men in strait jackets at one time, absolutely mad from drink. Now animal food with the assistance of such an auxiliary, and combined with mental vacuity, go far to account for the excess of mortality amongst Europeans.

STATEMENT of the Quantity of Beer sent to Madras and Bombay for the Use of the European Troops (N B None sent to Bengal)

YEARS	Madras	Bombay
	hogsheads	hogsheads
1840	500	
1842	1500	
1844	3000	
1845	3000	1000
1846	1000	1200
Under provision for 1857	200	232

And the spirits\* supplied at each presidency are--

In Bengal	Rum
At Madras	Columbo Arrack
At Bombay	Shandooop spirit.

The first features that catch the eye are, that the Bengal Europeans have not any porter sent to them, and that they drink rum, a spirit not so wholesome as arrack. Their mortality is 7.38. The Madras Europeans consume large quantities of porter, and drink arrack, a comparatively wholesome spirit. Their mortality is only 3.846 per cent. The Bombay European troops have only recently commenced the consumption of porter and the spirit they drink is understood to be more wholesome than rum, but less so than arrack. Their mortality is 5.078 per cent. These results are certainly not conclusive, but I cannot help associating the increased consumption of malt liquor by the Madras Europeans with their comparative healthiness, and the gradations of the mortality in the Bengal and Bombay European troops as partly influenced by the quality (no doubt much more by the quantity) of the spirits they respectively consume.

In contrast to this, let us examine the habits of life of the native soldier, and we shall find his health in the ratio of his departure from the European system

\* Twenty four degrees below London proof

of living I have been careful to give numerically the castes of the native troops of the armies of Madras, Bombay, and Bengal, with the exception of the Bengal cavalry, as their habits of life are chiefly regulated by their caste. The natives of India are generally considered to be very temperate in their habits, but it is quite a mistake to suppose that they all live upon farinaceous or vegetable matters, and do not drink fermented liquors, it is equally a mistake to suppose that the general food of the people is rice, which is only very much the case in low lands subject to inundation, and along the coasts. In the interior, rice is generally so much dearer than the bread grains, of which there are many (wheats, millets, the genera *holcus*, *panicum*, *paspalum*, &c., &c.) that rice is rarely consumed, at least in Hindoostan and the Deccan. The Hindoostanee soldier lives almost exclusively upon unleavened cakes of wheaten flour, daily baked upon an iron dish, and washed down with water. On the other hand, all Mahomedans, and all low caste Hindoos, are consumers of animal food, spirituous liquors, opium, ganja (hemp water), and many castes of the *Shudras*, the *Mahrattas*, for instance, eat mutton and fish, when they can afford to do so, but meat is not essentially necessary to health and strength. *Liebig* says, that only those substances can be properly called nutritious which are capable of conversion into blood, that meat is readily converted into blood, that farinaceous food has also this nutritious principle in a high degree. The truth of this profound assertion of *Liebig* is established by the food of the great majority of the native soldiers of the Bombay and Bengal armies. I have shown that six-eighths of the Bombay army consist of *Hindoos*, and considerably more than half of the whole army are *Hindostanees*. These men never taste meat, fish, or spirituous liquors, but live, I may, from personal observation, venture to say, almost exclusively upon unleavened cakes of wheat or other cerealea, baked upon an iron dish, and eaten as soon as cooked. The mortality of this army for twenty years is 1.29 per cent per annum. The great majority of the Bengal army (eighty three per cent) consists of a similar class of men, and the mortality is only 1.79 per cent. The Madras army, in its constituents, is the reverse of the other two armies. In the cavalry there are from six to seven *Moosulmans* to one *Hindoo*, and in the infantry there is one *Moosulman* to every one and one-half to one and three quarters *Hindoos*, but amongst the latter there is a considerable number of low castes, without prejudices about food, and unrestrained by the prejudices of caste, therefore the majority of the native troops of the Madras army can eat and drink like Europeans, and the mortality returns show us that they suffer from cholera as much as Europeans suffer, and that the mean mortality from all causes is 2.095 per cent, or more than three-quarters per cent beyond that of the Bombay army for twenty years. I never followed a farinaceous or vegetable regimen myself in India, nor do I recommend it to others, but I ate

moderately and drank little, and I have a strong conviction that much of European disease in India is traceable to over-stimulus, and that the mortality among the European troops will not be lessened until the European soldier is improved in his habits, and until he is made to understand that temperance is for the benefit of his body, libraries for the benefit of his mind, exercise for the benefit of his health, and savings banks for the benefit of his purse The climate of India is less to blame than individuals, for in case foreigners find the people of a country healthy, they should, to a certain extent, conform to the habits of the natives to be healthy also — *Colonel Sykes Report*

ACTUAL Numbers living at each Age in the Bombay Army on the 1st Day of January in the following Years

Age next Birthday	1842		1843		1844		Total		1845	
	Living	Deaths	Living	Deaths	Living	Deaths	Living	Deaths	Living	Deaths
21	number	number	number	number	number	number	number	number	number	number
22	3 104	84	2 832	322	5 538	749	17 736	540	6 236	8 093
23	2 682	82	3 089	0	2 963	50	8,914	99	3 171	2 705
24	2 278	74	2,642	78	2 949	7	7 883	217	2 239	1 17
25	1,815	66	2,090	70	2 492	42	6 317	178	1 273	821
26	1,316	43	1 595	52	1 825	34	4 766	131	1 047	597
27	935	29	1 128	28	1 440	38	3,623	95	7 29	1 056
28	545	30	778	23	578	36	2,338	50	1 04	748
29	506	12	532	34	688	16	1 728	32	3 1	2 12
30	417	19	418	12	514	17	1 349	48	4 3	3 1
31	404	9	354	8	343	8	1 101	25	4 7	3 1
32	608	13	418	13	353	4	1 326	29	4 7	3 1
33	842	21	541	11	372	10	1 65	42	6 16	4 3
34	1 004	22	733	17	476	8	2 213	37	7 2	5 1
35	1 144	46	1 064	19	795	25	3,003	89	1 056	1 056
36	1 021	34	967	20	881	20	2 919	80	1 04	1 04
37	938	36	1 080	26	911	12	2 949	46	1 04	1 04
38	532	35	835	14	523	24	2 10	81	952	952
39	763	29	794	10	690	21	225	60	792	792
40	615	35	772	29	794	39	2,121	74	748	748
41	564	11	523	19	649	10	1 730	21	6 11	6 11
42	581	14	465	12	419	14	1 464	40	6 14	6 14
43	316	26	522	10	307	16	1 435	1	594	594
44	264	20	419	7	420	11	1 203	48	4 23	4 23
45	347	18	341	9	379	10	1 057	37	3 1	3 1
46	280	11	245	7	371	6	836	24	4 4	4 4
47	220	12	213	7	218	7	686	26	212	212
48	174	5	222	7	213	11	64	23	279	279
49	16	4	164	0	13	3	479	14	166	166
50	144	8	129	4	92	1	362	13	127	127
51	98	6	99	4	72	2	263	10	92	92
52	509	6	256	8	233	3	739	17	260	260
	34 472	1 070	32 27	84	34 461	732	96,663	2 773	29 970	29 970



The Equation of Life, representing a Term of Years, for which there is an equal Probability of Living

AGES	Scinde	Residue	Total Army Bombay	England and Wales Males	Glasgow Males
	per cent	per cent	per cent	per cent	per cent
21	16 477	30 097	24 534	33 410	39 423
25	16 190		23 583	46 368	37 760
30	15 978		22 717	36 487	34 654
35	14 499			32 625	21 713
40				28 787	19 007
45				24 878	16 363

The Equation of Life, representing a Term of Years for which the Probability of Living is two to one

AGES	Scinde	Residue	Total Army Bombay	England and Wales Males	Glasgow Male
	per cent	per cent	per cent	per cent	per cent
21	24 9	30 563	14 771	22 913	21 505
25	9 8 6	19 861	14 483	36 370	19 443
30	9 484	15 247	14 307	27 609	16 309
35	8 586	16 391	13 424	24 731	17 819
40	8 230		13 393	21 079	18 096
45				18 016	19 933

The Equation of Life, representing a Term of Years, for which the Probability of Living is three to one

AGES	Scinde	Residue	Total Army Bombay	England and Wales Males	Glasgow Males
	per cent	per cent	per cent	per cent	per cent
21	6 30	14 601	10 357	27 045	16 213
25	6 770	14 671	10 271	24 297	15 102
30	7 070	14 071	10 405	22 127	15 046
35	6 11	12 735	9 919	19 827	14 231
40	5 728	10 653	9 038	17 3 5	9 991
45	7 009			14 873	8 179

MORTALITY among the Military in various Countries

REGIMENTS	Mortality	Colonel Tulloch	REGIMENTS	Mortality	Colonel Tulloch
	per cent	page		per cent	page
Dragon Guards and Dragoons	1 51	7	White troops Gibraltar	2 9	6 (r)
F of Guards	2 10	9	Black troops ditto	6 20	17 (a)
Hussar Cavalry	1 45	10	British troops, Malta	1 37	22 (a)
Troops in Ireland	1 55	33	Troops in Ionian Islands	2 83	22 (a)
French army	1 53	33	Cape of Good Hope	1 55	21 (r)
French army	1 17	37	Canada	2 00	25 (A)

CHARITABLE DISPENSARIES

The statistics of the Government Charitable Dispensaries of India, chiefly in the Bengal and North-Western Provinces, have been admirably prepared by Lieutenant-Colonel W H Sykes, R S, and we regret that we can afford but a limited space to those very interesting returns

During the administration of Lord Auckland, the institutions, described by Colonel Sykes, may be said to have their origin, and it was in a letter, dated the 27th of April, 1838, that the government of India sanctioned the establishment of dispensaries in some of the large towns in the Bengal Presidency. They were to be under the civil assistant surgeon of the station, who was to be allowed fifty rupees per mensem, including his vaccination duties. An educated

young man, from the Medical College at Calcutta, on a salary varying from forty to 100 rupees, but latterly fixed at 100 rupees, was to be placed in charge of the dispensary. A small number of beds, for extreme cases and for surgical operations, were attached to each dispensary, and the appointment of boys, as apprentices, for vaccine objects, was suggested. It was proposed to limit the monthly charge for each institution to 250 or 300 rupees. The dispensary was to be furnished with medicines and surgical instruments from the government stores, and instruction was to be given to any youths who might desire to attend. The native assistant might practise privately.

The judge, magistrate, and civil surgeon, were to be a standing committee for the management of the dispensary, and were to correspond with the medical board. The revenue commissioners were to have a voice when present, the civil surgeon to be *ex-officio* secretary, and the committee might invite the co-operation of any native gentlemen.

The above arrangements were confirmed by the Court of Directors, in a despatch to Bengal, of the 13th of July, 1842, directing, however, that the cost should not exceed a certain fixed sum, unless the natives assisted by subscription.

The Medical Board, in a letter to government, dated the 31st of October, 1842, speak in confident terms of the prospects of success of the institutions, and say there are more native sub-assistant surgeons than can be employed in the service, "and if, after the trouble and expense which have been incurred in educating them at the new medical college, they be not sufficiently qualified we must despair of ever seeing that object effectually attained."

What these qualifications proved to be the following paper will show.

"The expectation of aid from the natives was not disappointed. The Rajah of Burdwan, on the object being made known to him, immediately allotted 200 rupees per mensem for a dispensary in Burdwan, and others in like manner have come forward.

"The sub-assistant surgeons in charge of the dispensaries were not all natives, although the great majority were so, some being of half blood, and having probably a familiarity with the English language. The reports and returns were to be made half-yearly by the sub-assistant surgeons themselves, and as I shall have occasion to read a report from one of the educated European surgeons, and one from a native sub-assistant surgeon, the auditors will have the opportunity of judging whether they could distinguish the one from the other by the phraseology. But the reports are not limited to the communication of information on medical subjects, they contain also much interesting and valuable matter on meteorology, the habits, customs, and prejudices of the natives, the state of drainage of towns, and physical characteristics of localities. The reports, so sent in, were transmitted by the superintending surgeon to the Medical Board at

Calcutta, and by the latter forwarded to government, and the government, with sound judgment, directed them to be periodically printed for the use of the Court of Directors, the government of Bengal, and the medical department generally

“As the returns comprise 267,456 cases treated, it may very properly be asked ‘What test is there of the accuracy of the returns made by young natives, who had every possible motive for exaggerating and enhancing the amount of their own labours and success, whose bread, in fact, depended upon this success?’ Setting aside, however, the daily supervision of the civil surgeon of the station where the dispensary was located, the returns themselves bear internal evidence of *bona fides*. How easy was it for the sub-assistant surgeons, particularly with out patients, to put down most of those who ceased to attend as cured, nevertheless, 94,618 are put down as relieved only, or ceased to attend. How easy was it for them, in the treatment of diseases which the world knows to be of almost certain cure, such as those of the skin, gonorrhœa, syphilis, &c., to have put them all down as cured, and no one would have questioned the accuracy of the return for a moment, nevertheless, not two-thirds of these cases are returned as cured. It might have been expected, also, with the natural vanity of young men just started into practice, that there would have been some little show off, some manifestation of a successful treatment of difficult cases, of curing diseases that are not readily affected by medicine or art, but there does not appear to be any thing of the kind, excepting in two returns, which may be attributed to typographical errors. Elephantiasis, scrofula, tetanus, epilepsy, paralysis, anasarca, and leprosy, which are rarely manageable in the hands of the European scientific medical man, appear by the returns equally unmanageable in the hands of the native sub-assistant surgeons. There are in the returns numerous typographical errors, many of these have been corrected from the body of the return itself, and the others only occasion an error in the individual return, which is not appreciable in the sums total of all the returns. On the whole, therefore, the returns may be viewed with confidence for their general accuracy. It is not my object to enter into any medical question at all, my object is simply to show the amount of good done, and I might confine myself, therefore, to giving the total results, but the reader may expect from me some cursory observations upon the general features which the tables exhibit, and to these I will limit myself, referring the medical man to the tables themselves for details. I have arranged the tables so that a progressive view may be taken from Dacca and Chittagong, in the low lands of the East, through the low lands of Bengal *via* Bhowancepoor, Pooree, Moorshedabad, Patna, and Benares, to the Upper Provinces *via* Allahabad, Agra, Delhi, Shah-jehanpoor, &c, thus separating what are called the Lower from the Upper Provinces of the Bengal and Agra governments, that medical men, or others if

so disposed, may investigate as far as the tables supply the means, the effect of climate in developing particular diseases. One element, however, to assist the judgment in the investigation, is wanting, and that is the population of the respective neighbourhoods of the several dispensaries. In only one instance is it given, that of Allahabad, and I have attached it in the Appendix. Confining myself to the broad features, I may state, that 267,456 cases, including house and out-patients, were treated—of this number 168,871 were cured, 2417 died, and 96,168 ceased to attend, and the results were not known. Intermittent fevers amounted to 20,028, and with the minor accompaniment of 4590 remittent and 6807 continued fever cases, take the lead of all other diseases both in the Upper and Lower Provinces, excepting only rheumatism, of which there were acute 9087, and chronic 19,928 cases. The intermittent fever obtained at all the dispensaries as a leading disease, the remittent fever very slightly at Moorshedabad, Pooree, and Chittagong, in the low lands, but considerably at Dacca, also in the low lands. In the Upper Provinces, scarcely at all at Agra and Muttra, but considerably at Delhi and Bareilly. The continued fever appears to have been pretty equally felt, excepting at Moorshedabad and Pooree, in the low lands, and Cawnpoor, in the Upper Provinces. Rheumatism, both chronic and acute, prevailed at all the dispensaries, the only exception for the acute being Moorshedabad and Pooree, in the Lower, and Agra and Muttra, in the Upper Provinces, at which two last places there is not a single entry.

“The next great features are ulcers and abscesses. The former rival in amount (20,615) the intermittent fevers, and prevail in all climates, but are readily curable. Phlegmon and abscesses (10,418) are half as numerous as the intermittent fevers.

“Diarrhœa appears to prevail generally, but not with any intensity, amounting (9123) to about two-fifths of the intermittent fevers.

“Dysentery, both acute and chronic, appear to be moderate, the former 3602, and the latter 3377, the two together barely constituting a third of the intermittent fevers.

“Patna, and Benares, and Bareilly suffered most from the former, and Benares and Delhi from the latter forms. Enlargement of the spleen (6484) appears a common accompaniment, or rather result, of fever cases, but it decidedly prevails in the Lower Provinces rather than the Upper, the only exceptions being Allahabad and Delhi, and at both these places fever prevailed in more than an ordinary degree. The next great feature, or rather the chief feature, as far as numbers go, is that of the comparatively harmless diseases of the skin (25,733). These are common to all the dispensaries, whether in the Lower or Upper Provinces, and in some few cases they have proved so intractable that death has ensued. A melancholy feature of the returns is the large amount of syphilitic



and analogous affections, primary and secondary, amounting respectively to 13,261, 7658, and 6694, and frequently being of so inveterate a character as to occasion death. A singular feature of the returns is the comparatively enormous amount of mechanical injuries of contusions, 1548, dislocations, 712, incised wounds, 2588, fractures, 737, and burns, 517, total, 6102. This scarcely supports our ideas of the gentle, resigned, and placable Indian, but would rather lead us to believe in a good deal of pugnacity and violence, with no indisposition to occasion broken heads and broken bones, it is but fair to admit, however, that many cases are returned as wounds, &c, from elephants and tigers. A very affecting accident is mentioned by the sub-assistant surgeon of Benares, Esher Chunder Gangoolee, under the head of 'Burns,' which terminated fatally, he says—

“The second case was that of a man who fell into the funeral pile of his only son. He was burnt all over the front part of his body and on being brought to the hospital endeavoured with all the strength that was left him, to prevent the application of external remedies he also refused to take any internal medicine, and died next morning.

“Such cases of ardent attachment exhibiting itself in other forms than the above, are by no means uncommon, and I have witnessed several. Even in cases of Sutteé I have known the widow resist with all her power, attempts to remove her from the funeral pile of her husband. Both bilious and spasmodic cholera appear but as minor items in the returns, they appear to have been treated simultaneously in several of the dispensaries, though the mortality from bilious cholera bore no comparison with that from the spasmodic, nevertheless, the results of the latter support the statements I recently published of the mortality in the Madras army for five years, from which it appeared that the mortality from cholera, even in the worst periods, never reached two per cent of the whole mortality of the army. Inflammatory diseases, whether of the head (370), chest (1574), or bowels (326), bear a small proportion to the total diseases. I should have thought that inflammation of the chest would have stood prominent in the Upper Provinces, but it appears only to have prevailed to any extent at Mouadabad, while a greater number appear on the returns from Chittagong, and 248 from Moorsheadabad. Diseases of the nervous functions appear scarcely marked. The largest figure is 1170, paralysis, with only 90 apoplexy, and 68 tetanus, mania 369, many of which cases are returned cured. It is a singular feature among the people of India that so small an amount of madness, in its various forms, prevails.

“Dropsy, under its different divisions, is by no means uncommon, but its treatment on the whole appears successful. Leprosy appears to a considerable extent, 2436 cases, and throughout the Upper and Lower Provinces remedial treatment appears generally ineffectual, but some cases to the contrary, in one or two of the returns, have led to one of my preliminary observations. I may say the same of asthma, which is generally returned as relieved only, but in some cases the contrary. The asthmatic cases are 3740. Consumption does not

appear on the returns at all of six dispensaries, a solitary case on some others, and the highest number is at Chittagong (44), where it might have been least expected. On the whole, it is comparatively non-existent in India. Colds are common enough (6466), although not a third of the fever cases, and do not appear to produce the consequences common in less favoured climates. Disease of the liver, both acute and chronic, the bane of Europeans in India, is but a fraction of the whole amount of disease amongst the natives, only 299 acute, and 739 chronic cases, having come under the observation of the sub-assistant surgeons. It might have been supposed that columns for fifty-eight diseases would have comprised all that it was necessary to report, nevertheless, so far from this being the case, the column of 'Ali Morbi' contains the greatest total of any, namely, 51,908. This column comprises hæmorrhoids, cancer, fistula in ano, exostosis, amaurosis, catalepsia, bronchitis, constipation, diseases of the teeth, croup, hysteria, hydrophobia, leucorrhœa, diabetes, and unusual forms of diseases of the respiratory organs, of the sexual organs, of the skin, &c. On the subject of the mortality in the treatment of the different diseases, I shall say little, it can only be fairly put in connexion with the treatment of the house-patients. Here the diseases mostly ran their course and the results were satisfactorily known, but even from the house-list, patients to the number of 1550 absconded before they were healed. Amongst the out-patients, the results of 89,263 cases were not known, by the parties not returning to the dispensary, of these many may have died, who are not inscribed in the returns. As the dispensary returns, however, show the number of those who did not return, and the diseases for which they were treated, an approximate estimate of the probable results may be obtained from the nature of the diseases, and using the results of the treatment of similar diseases in the house list as elements of comparison and deduction. 171,722 of the out-patients were known to be cured, and the known success justifies, to a certain extent, qualified presumption of success in the unknown cases. I must, however, refer those disposed to investigate the subject to the tables themselves for the details.

"I have hitherto adverted only to the knowledge of medicine of the sub-assistant surgeons, but the most valuable branch of knowledge taught to these young men is the science of surgery. The amputation of limbs, couching for cataract, cutting for stone, tapping for dropsy, &c. The success of the several operations is very creditable to the skill and to the nerve of the operators. The diary of many of these cases by some of the operators, in their own simple, and for the sake of brevity, contracted language, is often of considerable interest. I annex two notices of cases of lithotomy, as types of others, but Sub-Assistant Surgeon Ram Narrain Doss, of Cawnpore, showed his skill, not only as a manipulator in lithotomy, but as an excellent draftsman, for he attached to his report drawings of the stones he extracted.

Cawnpoor, Dec 1843

“ Among the operations performed lithotomy forms the most in the number, and since the dispensary is under my charge I have operated for stone on twelve subjects, and am proud to say that I have been successful in all of them, all got well without much trouble or suffering and within the past six months, four cases of lithotomy have been operated, and three are discharged cured, and one is under treatment \*

Jubbulpoor Dec 1845

“ In this case there was evidently infiltration of urine in the cellular tissue about the neck of the bladder, and the communication between that receptacle and rectum was the result of ulceration The rectum was not certainly wounded during the operation This is the only case in which untoward symptoms came on out of my ten successful operations †

“ It will not be necessary to advert more at large to numerous successful surgical operations of all kinds performed by these young men, but in the Appendix I have collected some lists of reported cases for the inspection of such as desire to examine them

Another of the important duties these young men had to perform, was the discovery and application to remedial purposes of native medicines, many of which were known to be very efficacious, although unknown to our pharmacopœias It was desired to save the expenditure of European medicines, and to select such native medicines as might advantageously be incorporated in our English pharmacy How effectually this desire has been realised, will be shown by the accompanying selections from the lists of new medicines used in the dispensaries ‡ The most extended list is that supplied by Dr Davis, of Patna, the zealous author of the statistical account of that city He has given the names in Hindee and Persian, and has shown where a corresponding English name is wanting, and a glance down his columns proves that 232 native medicines are unknown to our English pharmacy, and the native sub assistant surgeons supply others The latter, in their reports upon the compound metallic native medicines, show a very respectable knowledge of chemical analysis, for they themselves, when dissatisfied with the accounts of native physicians, of their process of preparing their medicines, test their accuracy by analysis In one instance Ram Narrain Doss, of Cawnpoor, exhibits not only his botanical knowledge, but his power of delineation, by sending a scientific description and correct drawing of a plant producing a new medicine, the sha pussund, a convolvulus, the seeds of which have the same purgative property as rhubarb He gives an analysis also of the seeds The drawing accompanies this paper Dr Balfour, of Agra, reporting on the conduct of Omachuin Set, on the 31st of January, 1841, says—

“ All the above marked as quotation is from the information of the sub assistant surgeon and is furnished generally in his own words I am happy to be able to continue to report favourably both on his attention and the success of his practice, as it

\* Ram Narrain Doss—His own words † Sarva Churn Dutt—His own words

‡ It is found inconvenient to insert these lists in the journal of the Statistical Society but they are preserved in the archives of the society for inspection

has fallen under my observation. He has, as will be seen above introduced a considerable number of native remedies into the dispensary practice the most useful of which undoubtedly are the blistering flies and the turbut, which is now used in large quantities as a substitute for jalap, and will greatly reduce the expenditure of that drug. The most perfect confidence appears to be placed in the sub-assistant surgeon by his patients—they come from very great distances, and are many of them of a most respectable class—and it is no uncommon thing to see one who has been cured return bringing with him a sick comrade or relation to introduce him to the place. They also return when afflicted themselves with different ailments, or a return of the former one. With all the success of the dispensary, there has been no driving or urging of patients to attend, all that has been done has been to extend the knowledge of the institution as widely as possible, leaving the people to come unfettered. This has answered well and means are at present being taken by hand bills in the native languages (which are getting ready) to spread as widely as possible in the neighbouring districts, the intention and benefits of the Agra Dispensary.

“(Signed) JOHN BALFOUR

““Officiating Civil Surgeon and Officiating Secretary,  
““Dispensary Committee”

“The people of Upper Hindoostan are still so strongly prejudiced against female freedom and female happiness, that they always take the best care to keep their wives and daughters in the innermost recess of their cooped up houses, they have no faith on each other, and consequently none of the other sex, but such as belong to the family, can have an access to the family part. When sick of the ordinary diseases, I mean when not very dangerously ill, they must be treated by the history of the case as described by some of their male relatives, otherwise the physician is admitted to feel the pulse, by which guide alone they must be treated. It is no wonder then that for the diseases of the urinary and the generative organs they should invariably have recourse to nurses and old grandmothers. The few who apply to the dispensary come not before the disease has advanced to a fatal extent. A very large number of women suffer on account of this over modesty and groundless shame from difficult parturition and its sequelæ. The country nurses who are proverbially ignorant, and who know nothing of the organs they deal with or of their functions natural or as modified by circumstances, but are nurses only by birthright, are called in on all occasions of parturition, but these, instead of assisting the parturient female, treat her so roughly, and that so frequently, and relate to her so many frightful tales, to shorten, as they believe, labour pains, and to quicken delivery, as to depress her spirits entirely. Thus a most easy and natural phenomenon is often converted into a most troublesome and hazardous job. The Hakeems have no medicines to expedite delivery, neither do the people approve of the plan of administering medicines to pregnant women.

The next source of female misery lies in the belief in ghosts and evil spirits. The nervous diseases are all regarded as signs of the patient being influenced by *hoot* or ghosts, recourse is therefore invariably had, in all such cases, to blowing *muntra*,\* and suspending amulets.

*Mithoos*, so called from a false notion that the disease arises from the excessive sweetness, or *mithee*, of the mother's milk. It is a very fatal disease. It greatly resembles the *tabes mesenterica* of the European authors, I say resembles, because I have not yet had an opportunity to identify the two diseases by *post mortem* examination. *Mithoos* is characterised by the same wasting of the body, tumefaction of the abdomen, presence of a slow fever, disordered state of the bowels, and, lastly, consumption and death. A combination of two savage customs has contributed to make this disease so common in this country, and the extreme poverty of the people has made it so fatal, at or about the second month of its infantile life, every child is made to take opium, wine or any other narcotic drug to lull it into sleep, this unnatural and cruel practice has gained so firm a footing, in this city in particular, that even the rich mothers, who can

\* Charms

easily afford maid-servants for their children, nay, who have them already, indulge in it frequently

“ There is no ordinary difficulty in administering to female ailments from the determined exclusion of the women of many classes and caste, and superstitious usages add to the difficulties the European medical man has to encounter ”

“ Respecting the inhabitants of Patna, Dr S Davis writes —

“ The habits, education, morals, and customs of the inhabitants of the city are in many respects better than those of many of the great cities of India There is less of religious parade and intolerance amongst the Hindoos, and the Mussulmans (though very numerous) are greatly shorn of that arrogance which has clung to their character and manners, more or less since the Mahomedan conquests this, doubtless, arises from the circumstance of there being but few families of either nobility or large property, and consequently few priests to minister to their vanities or weaknesses, for ‘ wherever the carcass is there the ravens will be ’

“ I have before said that the city impresses the inquirer with the idea of active industry and it is chiefly by the exercise of this that the large population is supported As regards education, all that can be said is, that as a certain quantity of learning is necessary for bunyans and shopkeepers, there are few, except the poorest of the labouring classes, who cannot read and write, and but few who have higher acquirements of a scholastic character than this, if we except a class of men who are brought up with a view of exercising their talents as omahs in the different courts, and a few others who are in the course of education at the government school Amongst the former are some learned in Oriental literature, but by far the greater part are utilitarians, and acquire only that measure which will come into actual play, and turn to account The government school having been established but five years, it is difficult to say what will eventually be the effect of it, but when we consider that the great inducements to learning are profit, either in the shape of money, station, or fame, and the little chance the clerics of these establishments have with those who have been spending their youth in acquiring in intimate acquaintance with the actual practice of the courts, and are, as it were, ready-made omahs, I think the chances are, that those who merely look on the profit side of the question will give their sons an education, which will fit them for immediate employment at Patna The government school has never been a popular institution At first there was a feeling that it was intended to alienate the children from their paternal faith, then again the system was not considered sufficiently utilitarian so that comparatively but few of the respectable natives encouraged their children to attend it Time will doubtless wear away their feelings, and we may yet hope to see knowledge spread its root and branches far and wide

“ With respect to the morals and customs of the citizens, it is difficult to form any rational conclusion, on account of the exclusive mode of life of both Hindoos and Mussulmans except that inasmuch as industry prevails, immorality (which is the offspring of idleness) usually declines In a population of upwards of three lacs there must be much immorality, and in crowded cities drunkenness is generally a crying evil It is to be lamented that there are many facilities for indulging this vice the city is surrounded with toddy trees and in addition to the produce of these, intoxicating liquors are prepared from molasses, *mowca* and other articles, but notwithstanding this, I do not think that the inhabitants generally are intemperate, though in a city of such magnitude, the consumption of country wine and spirit among the lower classes must be considerable The grosser vices of bloodshed and theft appear to be less frequent than in other districts, owing probably to the full employment which every one willing to work may obtain for his time, and on the whole the population may be classed as industrious, with fewer of the prejudices than exist among the village population generally There is nothing peculiar to notice in their customs, and I shall proceed to a slight review of the state of the public health

“ The province of Bihar may be considered as favourable to health as most parts of the continent of India and the diseases I have mentioned as frequently met with at Patna cannot be considered as proof to the contrary The objects of some of them are outcasts from their families and homes, and are brought together here from the surround-

ing districts, by the common desire of exciting the commiseration of the wealthy and humane

“As in all crowded cities epidemics occasionally appear, and spread devastation around them, and during the eight years of my residence I have seen several severe visitations of cholera and remittent fever, the former usually making its appearance at the commencement of the hot winds. There is often in April and May, an indescribable but well-understood state of the atmosphere accompanied with variations in the wind, and a hazy and sultry appearance that is favourable to the production of the former very frightful disease. During such weather you find vegetation blighted by impalpably small animalcules, which elude the perception of the naked eye, but are easily discerned by the aid of microscopic instruments.

“I have long thought that cholera and some other diseases have their origin in animalculine blight and late writers have brought together so many facts bearing on the subject, that this opinion gains ground with me daily nor is the circumstance of diseases spreading more in crowded cities than in smaller localities at all contrary to this theory, since there are so many more points of attraction or deposit. The state of the atmosphere is, without doubt greatly modified by the locality over which it ranges, and in situations favourable to the production of disease, it is not unreasonable to conclude that a peculiar state of it is attended by a vivifying influence which brings into existence poisonous animalculine exhalations capable of producing maladies in those who may be obnoxious to it, either from congenital or induced debility or other idiosyncrasy. Those visitations are not of very frequent occurrence here, but the district to the south of Patna is rather low and swampy, and I think, *ceteris paribus*, rather favourable to the production of this pestilence. The same theory may perhaps be applicable to remittent fever, and the difference between the diseases accounted for, either by the quality or dose of the poison. The fevers of this part of the country are, however, much more manageable than the bilious remittent of Bengal, and partake more of the nature of inflammation, as the remissions are very imperfect, and the hepatic system is less deranged. Nineteen cases out of twenty yield to active and prompt medical treatment but where this is neglected, dysentery frequently ensues and brings about a fatal termination. Rheumatism is very common, and difficult of cure, and a very great many cases of cataract occur in men and women between the ages of fifty and seventy the operations for this disease at the City Dispensary are very numerous and successful.

“On a general review of the state of the population of Patna, as respects health and disease, I have little to suggest. It would be very desirable if the inhabitants were spread over a larger surface, but as this is almost impossible to accomplish, the greatest safeguard to health will be proper drainage, and the prevention of accumulations of filth. I have mentioned that the land to the southward of the city is in many parts very low, but although low, most of it is above the level of the river during the months of October and November, and might, without any great difficulty, be drained into it by one or two judiciously-placed canals. This would probably interfere with the proprietary rights of a few zemindars, as the water is dammed for the purpose of irrigation, but this might be settled without much difficulty. If this plan were carried into effect, it would be necessary to have a weir on the side of the river to prevent its ingress during the rains, and in addition to these a pukka drain on either side of the main street communicating with these canals should be made, by which means the whole city and suburbs would be effectually drained. I cannot help thinking that this would materially add to the healthiness of the city, as I consider the fevers at the close of the rains to arise from pestilential exhalations from the low marshy land to the south, brought into a state of activity (if not of vitality) by a peculiar electrical state of the atmosphere, which occasionally prevails at that season for it is a well-known fact that the residents of the high banks of the river suffer less than those of its southern environs. In respect to the many loathsome objects who are continually wandering about the streets of Patna, it is a great desideratum that some asylum should be provided for them, not with a view to their cure, for it is unlikely that more could be done for them in that respect than they have the means of attaining by application at the dispensary, but in affording them food and shelter and a little clothing during the cold weather. It may be urged that these poor creatures are more the objects for private charity than for the consideration of govern-

ment but when we see that notwithstanding the liberal exercise of this, hundreds are outcasts from their family and homes, without food or clothes, and too much crippled by disease to obtain either by their own industry, it surely becomes a benign government to find them shelter and protection. Even under the native governments, *serais* were established and maintained, and endowments were given for charitable purposes, and it is difficult to contemplate their enlightened successors retrograding in charity and protection. The same state of things exists, I presume, in all the great cities of India and a small appropriation of the many funds at the disposal of government would put an end to it, and prevent the unsightly perambulations of these pitiable but disgusting beings. The "Ferry Funds" are rich and unappropriated, and a "Refuge for the Destitute" might be formed from them, which, under proper management, would be a real charity.

"The half yearly report of Sub-Assistant Surgeon Jaudub Chunder Dhara, after giving a succinct chronicle of the state of the atmosphere and of disease, together with the operations of the Allahabad Dispensary during that period, terminates with the following observations by Jaudub Chunder Dhara, Sub-Assistant Surgeon

"In conclusion, I beg to bring to the notice of the board the happy and wonderful effects of the nitrate of silver, in a species of skin disease very common in India. It is characterised by the discolouration of the skin, in small patches, with loss of sensibility in the parts. The lips, palms of the hands, and soles of the feet are most frequently attacked but the rest of the body is not entirely free from the affection. It begins in very minute white spots, which gradually expand till they occupy a larger surface. The disease is not attended with any pain or constitutional irritation, the patients enjoy pretty good health, and think of medicine, because the spots look bad, but especially because it is deemed by the natives the result of some first-rate sin committed in a former life."

'The superintendent surgeon adds —

"In appending a few observations to this half yearly report of Sub-Assistant Surgeon Jaudub Chunder Dhara, I have much pleasure in stating, for the information of the Medical Board, that his conduct has been most exemplary during the last six months, and such as to merit my approval in every respect.

"From his excellent qualifications as a medical practitioner, zealous attention to his profession, and great success in his treatment of the numerous sick submitted to his care he has inspired general confidence and respect.

"In the performance of surgical operations he exhibits coolness, dexterity, and judgment.

"The conduct of apprentice Lalla merits my approbation, and I intend shortly to send him before the medical committee at this station for examination as to the progress he has made in his studies. I regret to say that the other apprentice, "Chunnee," has not given satisfaction and I have been obliged to dismiss him, and am looking out for a substitute in his place, being a high caste Brahmin, he objected to touch a dead body.

"The following notes on the burial-grounds of Benares, by Issar Chunder Gangooly, brings to light a most serious evil —

"Benares January 31 1844

"The liberal disposition with which suggestions are received by my superiors emboldens me to bring to their notice the existence of another evil in Benares, which is productive of serious mischief, I mean the indiscriminate appropriation of grounds for burying the dead. I have counted 150, and some of my acquaintances say there is as many more, of these elevations of grounds, called *taktias*, in and about Benares, and as the poor do not mind to bury the dead deeper than they think it necessary, a few years' rains expose them to the action of the atmospheric heat and air. The incalculable mis-

chief which such an exposure might be productive of, can be known only to those who have witnessed the rapidity with which decomposition of animal matter takes place under an Indian sun of April and May. Were I to deal widely in hypothesis I might with every plausible reason attribute the occurrence of epidemic cholera to this source. Effluvia from putrid dead bodies (emanating from the burial grounds from accidental causes) under favourable circumstances, has been known even in Europe to nearly depopulate a number of villages, and that in India it will produce similar effects, but of an aggravated nature, is matter of no surprise.

"A feature of Indian society, not less deplorable, is that mentioned by Nil-money Dutt, in explanation of the excessive mortality in the Pooree Dispensary —

'This mortality, as occurring in a well appointed public institution, is at first sight appalling, but when it is considered that the admissions are principally pilgrims to the shrine of Juggernaut, who are lifted from the road-side in a dying state, such a ratio of deaths so treated cannot occasion surprise, and is no wise attributable to mismanagement on the part of the dispensary officers.'

"The Agra returns contain interesting notes by both the European and the native officers, and the following observations on the use of dispensaries, by Omachurn Set, are well worthy of perusal —

'August 9 1842.

"I am glad to observe that the benefits of the dispensary are now beginning to be better known and appreciated among the people than they were formerly. On reference, however to the monthly returns, it would be found that the surgical diseases predominate vastly over the medical ones, a circumstance proving clearly the greater confidence they place in our treatment of the former than that of the latter classes of diseases. Still it is not uncommon to find even the most respectable natives to have recourse to us for the treatment of medical complaints when the Hakeems failed in curing or affording the relief sought for. Those who have never used any European medicine seem to entertain a deadly dread of their strong action, and are not inclined to take them (though they might not have any objection on the score of religion), if they could afford to buy from the Hakeem's shop the ordinary native medicines, which are said to be mild, and often perhaps too mild in their action, though usually grateful to the palate. The sick poor, however, seem to place an unbounded confidence in our treatment of both medical and surgical diseases. This is to be attributed partly to their being unable to purchase the native medicines from the Hakeems, partly to their being much less influenced by religious prejudices, which exercise so powerful a tone of authority over the thoughts and actions of the higher classes, but I believe, in a great measure, to the past experience they have had of the benefits of the European plan of treatment since the establishment of the dispensary. The state of notoriety to which the dispensary has already been brought into since its commencement would, it is to be hoped, work its way on the scruples and prejudices of many, which are still forming so formidable an obstacle to a more extensive distribution of medical relief.

"Surgeon Shaw, at Agra, observes —

"The season I consider to have been particularly healthy there has been no epidemic — measles prevailed to some extent, but was of a mild character and seldom proved fatal. At one time small-pox was said to be in the city, but did not extend towards the middle and end of the hot winds. Intermittent and remittent fevers assumed rather a formidable aspect, and carried many to their long homes. The additions to the list of applications for relief were not much increased by it. Those for local and surgical diseases were much more extensive than for medical, although there was a very fair show of the latter. The advantages derived from surgery are much easier demonstrated than those from medicine, and come more readily within the scope of a native's comprehension."



“ With reference to the obstacles to their acceptance of relief presented by the habits and customs of the natives, he adds —

“ Besides, a native is by no means given to follow the *post hoc ergo propter hoc* belief as far as regards cure by European medicine, however he might be induced to follow it after the charms and incantations of the Hakeem. There is, however, another reason which influences them. A native when ill has a great disinclination to be removed from his house. He cannot cook his own food or wait upon himself. His caste acts as a bar to his being waited on by strangers, and therefore if he moves must necessarily bring along with him one or more of his relations, this, of course, is a serious evil to his household, and he prefers lingering on in his disease to seeking a cure at a distance. To this may be added the prejudices which already exist in his mind in favour of his native remedies. In most surgical diseases these objections do not exist. It is principally the poorer class of natives that flock to this charity for relief, and to them it is more satisfactory to afford it. They seek it with avidity, and receive the benefits with sincere thankfulness. It is, however, not infrequent for the better classes to apply, especially when their own remedies have failed.”

“ *Drainage — Calcutta — Roads, Streets, and Drains* — While attempting to trace up by the increased prevalence of particular diseases in certain localities, to the nuisances therein located, with a view for their ultimate removal, we should not overlook a subject that is intimately connected with the health and comfort of the inhabitants of the suburbs in general and perhaps of the city itself. I allude here to the bad state of the roads, streets, and drains throughout the suburbs, but more especially of those that are in the same lines with the prevalent winds. There can be no doubt that these at present exercise a considerable influence on the public health of the suburbs, and that an improvement on the former will be followed by a better enjoyment of the latter. But it is too well known to be here adverted to, that our ~~mess~~ roads and streets are very badly off, both as to their construction and cleanliness, and the drains here, instead of serving the purposes for which they were constructed, serve chiefly as reservoirs for filth and water, and thus generate those unseen particles termed *malaria*. These with the dust from the roads are carried off in the atmosphere, and conveyed through it by the prevalent winds northwards during one half year to the city, and southward to the district during the other, and thus become the fertile sources of disease in both. Hence the importance of paying more attention to the subject cannot be too strongly urged to the notice of those that have the public management of them.\*

‘ Gynah, Feb 1 1845

“ *Food of the Natives* — The number of deaths that we had this year from diarrhoea is accounted for by the people of this country living chiefly on *Sattoo*, parched gram, a coarse kind of flour, and other indigestible vegetable food, which by continued use, excite a kind of chronic irritation in the stomach and intestines, producing symptoms of dyspepsia and diarrhoea, which the poor people neglect till they are unable to go on without medical assistance, then they come to the hospital with the disease far too advanced and with œdema of their extremities, and at that time medicines can do very little for them.

“ SHAMACHURN SIRCAR,

“ Sub Assistant Surgeon

“ Patna

“ The prevailing complaints were fevers, spleen, diarrhoea, dysentery, &c. The native medical officer observes that, “ bowel complaints in this district of the country depend more upon the irregularity of food which they (the people) live upon, and the water they drink, than upon climate.” Cholera he reports, had raged in the city with violence during the months of May, June, and July last. The surgical operations performed by him have been numerous.

“ RAM ESHUR AWASTHEE

“ This series of extracts shows that the young men did not confine themselves to the mere mechanical performance of their professional duties, but that they

\* Observations on Drainage By Callachund Day

took comprehensive views of the means of making their own knowledge more generally useful, and they have advanced their reputation and the good of the state by so doing

"There are returns of vaccination and cholera treated in the cities and districts

"*Lucknow Hospital*—The King of Lucknow, in imitation of the liberality of the Company's government, established in Oude a charitable hospital for the sick

"*Calcutta Hospital*—The Calcutta Hospital is entirely independent of the dispensaries previously noticed, and with its dependent dispensaries relieves annually an amazing amount of suffering The return is—

RELIEVED		FUNDS	
1842	1843	1842	1843
number	number	rupees	rupees
204,533	207,112	400,338	419,238

"With one or two words on the estimation of the character and abilities of these sub-assistant surgeons by their superiors, as typical of their general estimation, I close my notices of Bengal

"Mr Macintire says of Shamachurn Dutt,—

"January 9) 1845

"To the foregoing report I have only to add, that the general and professional conduct of sub assistant surgeon Shamachurn Dutt continues such as to merit the highest commendation which it is in my power to bestow He is respected not only by such Europeans as know him, but by all classes of his countrymen in and about Jubbulpore, whose confidence in him as a medical practitioner is increasing in a very pleasing manner considering their ignorance superstitions, and deeply-rooted prejudices In fact, the institution under his professional charge has turned out to be a real blessing to the native population of this part of the country

"(Signed)

J MACINTIRE

"Civil Assistant-Surgeon, and Superintendent of Government Dispensary,  
"Jubbulpore

"And Dr Camberland could show his confidence no further than by putting himself into the hands of Nilmoney Dutt, to be killed or cured, as he relates in the half-yearly report of the government dispensary at Pooree, February to July, 1841, from which the following are extracts —

"A scarcity of grain has prevailed for many months past, and the same still continues, although the disease has ceased

"There can be no doubt, however that the scarcity has been the chief cause of the excessive mortality attending the disease The grain that the poorer class of people consume is of a very coarse and inferior quality, and they eked out a scanty meal of this, with such indigestible herbs and roots, that they do not eat at other times The irritable state of the intestinal canal thus induced, rendered them peculiarly liable to an attack of cholera, while the debility attendant on long continued poor diet rendered them ill able to bear up against the disease

"Sub-assistant surgeon Baboo Nilmoney Dutt joined on the 17th of May last His conduct has been very good in every respect With regard to his qualifications I cannot say more than that I intrusted myself with confidence to his care, when labouring under

an attack of bilious remittent fever and have every reason to be satisfied with his prompt and judicious treatment. The conduct of the two apprentices still continues to merit my warmest approval. They have lately had many trying scenes to encounter, particularly when there were 140 patients in hospital at once, most of them suffering from cholera. These youths were constantly in attendance, both night and day for weeks together.

R CUMBERLAND

“ *Poorce, August 1, 1841* ’

“ Little can be said for Madras, but the following extract from a public letter to Fort St George, however, shows that dispensaries were authorised by the Court of Directors

“ December 8 1841

“ We sanction the formation of dispensaries in the towns of Trichinopoly, Madras, Masulipatam, Nellore, Bellary, and Cuddapa, as an experimental measure, in the manner proposed, but we desire that no others may be established, until we are informed of the expense, and are satisfied with the results of those now sanctioned.

“ On the establishment of these hospitals ample opportunity of instruction should be afforded to such native students of medicine as may be in a condition to avail themselves of such an advantage.”

“ *Dispensaries subsequently authorised* — One on the south side of Madras, for the benefit of the poorer classes of the inhabitants of Triplicane, Royapettah, St. Thome, and the adjoining villages, also at Salem, Calicut, Vizagapatam, and Kurnaul.

“ In Bombay the dispensaries are under the European medical officer, and not, as in Bengal, under a sub assistant surgeon. The Bombay system is adopted at Madras, the judge and magistrate to allot a public building or to hire one. *Not indiscriminately* open to every patient. The native inhabitants with the ordinary diseases not to be admitted as *in-patients*, but accessible for advice and medicine to all *out-patients*. European superintendent to have fifty rupees per mensem. Each dispensary to have ten barrack cots, mattresses, pillows, and twenty quilts. Each to have a second dresser or assistant. To be inspected by the magistrates and superintending surgeons. When females apply, a separate ward to be allotted to them.

“ There are not any returns from Bombay.”

“ In conclusion, it has been contemptuously said, and is still said, that in case the Company’s government in India were swept away, not a monument of its existence would remain to attest its former state and power. No doubt the governments that have preceded the British in India have left sufficient proofs of their existence. The early Buddhist and Hindoo authorities have, indeed, left prodigious monuments of their wealth, of their power, of their perseverance, and of their religious enthusiasm, in their mighty cave temples and vast religious edifices. The Mahomedans, too, have studded the land with their magnificent mausolea, testifying rather to their pride than their piety. And what have the British done? I say we have raised greater and more lasting monuments than all these. One small extract from a report of a native sub assistant surgeon, Ch mun Lall, shall justify my assertion, he says —

Delhi August 1 1841

"One boy, about twelve years of age, who had been blind from cataract in both eyes from the age of two years, was operated on by couching, and restored to sight"

"I affirm that this faculty, given to a single native, to perform the god like office of restoring the blind of his countrymen to sight, is a more glorious monument than all the works of art that human pride or human ambition have ever burdened the earth with, but when we find scores of such individuals endowed with such a faculty, and thousands, nay, tens of thousands, possibly the recipients of the blessings they can confer—when we find the medical boards of the Bengal government reporting to government on the 22nd of August, 1843—

"We have every reason to believe that the benevolent intention of government in founding these institutions has been fully realised—and we feel confident that future annual results will add to the intrinsic value of the dispensaries, which are so well adapted by their internal economy to obtain the confidence of the native inhabitants.

"Many have had their sight restored—others have been cured of hydrocele—and relieved when in the last stage of dropsy. Several have also derived effectual relief from the successful operation for stone in the bladder. A few have been saved from a miserable death by the amputation of diseased members, and large tumours have been removed.

"Such operations could not have been achieved by native practitioners, without producing an impression on the minds of the most apathetic natives, and they must tend to spread far and wide the value of the government dispensaries."

"Then, I say, and with a thorough conviction of the truth of my assertion, in case the seeds of knowledge we have thus sown fructify to a general and luxuriant harvest, that we shall have left a monument with which those of Ashoka, Chundra Goopta, and Shah Jehan, or any other Indian potentate, sink into insignificance, and their names shall fall on men's ears unheeded, while those of Auckland, as projector, and of Goodeve, and Mouatt, and others, as zealous promoters of scientific native medical education, shall remain embalmed in the memory of a grateful Indian posterity"—Colonel Sykes' Report

#### PRODUCTS OF INDIA

THE climates, soils, minerals, and forests of India, with the most ample means of irrigating and otherwise fertilising grounds when exhausted, and the abundance, and consequent cheapness of labour, are such as ought to render the vast magnificent regions extending from the Himalayas to Cape Comorin, as rich and productive in proportion to the whole area of this empire as any portion of the world's surface.

The quantity and value of the products of labour in India will appear of great magnitude by mere reference to the statistical tables which we have given. But both quantity and value are lamentably deficient, when compared with the number of the population and the extent of cultivated and cultivable soil.

If, for example, we take merely a cursory view of the produce of agricultural labour in the United States of America, with 18,000,000 inhabitants, of whom so very great a number follow countless other occupations than that of cul-

tivating the soil, and then turn to the more than 100,000,000 inhabitants of India, who are chiefly engaged in agriculture, the quantity and value of the products yielded by the cultivated soils of the latter will then appear deplorably beneath those produced by the skill, energy, and industry of the cultivators of the North American soils

To what causes are we to attribute this disproportionate difference with regard to, chiefly the exportable products of India, where the wages of labour are, almost infinitely, lower than even slave labour in the United States? We may presume to attribute the reality of the deficient exportable products of India, not to the soil or climate, nor to the want of abundant and cheap labour, but to various other causes

**FIRST**—To, in a great degree, the natural dispositions, hereditary customs, training, castes, laws, and local circumstances of the Indian races

**SECONDLY**—To the stationary condition of the inhabitants for many centuries in the arts and sciences, and of the mechanical appliances in aid of labour, whether in agriculture or in manufactures

**THIRDLY**—To the generally frugal and temperate habits of the Hindoos, whose actual necessities are limited to the simplest and cheapest food

**FOURTHLY**—In a considerable degree, but not by any means to the great extent generally believed, to the ancient and prevailing system of taxation in India

There are many other local and minor causes, but the foregoing are quite sufficient to account for the rudeness of all agricultural implements,—the general want of roads, the deficient products of the soil, and the imperfect preparations of those products for the markets of the world, and particularly for the markets of Europe, especially of those products, such as cotton wool, with which the crops of America compete so triumphantly as raw materials for manufacture

A full examination of the principal causes which impede the development of the almost inexhaustible resources of India, is far beyond the scope of this work,—and we need only remark, that the British Parliament will, most assuredly, when the East India Company's charter must, in a short period, be fully reconsidered, insist, before that charter is renewed, upon the following points in the future policy of India being thoroughly carried into effect

**FIRST**—Adopting, with the most practically effective means and without delay, measures for opening communications, especially by railways, over the interior of India, in order to carry the products of the soil cheaply to markets, and the manufactured articles imported to the places of use, or consumption, within the different presidencies, including the dependent states \*

**SECOND**—A general revision of the whole system of taxation, including the

\* A million sterling of money is in the course of being expended upon the Doab Canal and there is not a year in which the Department of Public Works is not disbursing large sums of money upon roads embankments, navigation &c —W H S

abolition of monopolies and all differential customs' duties, and of duties between one presidency or state and another presidency or state in India \*

THIRD — Adopting means for introducing and using the best agricultural implements over all parts of India, and

FOURTH — Abolishing as speedily as can be effected *without bloodshed and violence, and with reasonably equitable compensation, the impotent, but still oppressive remnants of native governments, in order to establish one general mild and just, yet firm and efficient government over all India.*

Having very great confidence in the practical views of the East India Directors, we believe that they will apply their energetic attention to those great objects which are required by the whole condition of the Indian empire, and that they will all be fully in progress before the expiration of a charter, the non renewal of which we should deplore. The first three are at the present time considered part of the Indian system embraced in the administration of the directors, and events will render the fourth an imperative course of policy.

With these remarks we will conclude, by introducing the following statistical views and tables of the principal articles which are grown in, and exported from, India. For the statistics and prices of *cerealia* we are indebted to Colonel Sykes. The tabular account of cotton, &c, are from official returns.

In agriculture, with the exception of the extension of growing *opium*, indigo, and the sugar-cane, India appears to have, in skill and production, remained stationary for more than two centuries. In the growth of some articles, especially cotton, it has retrograded.

Great industry is, by necessity, practised by those people who inhabit the acclivities of the Himalaya chain. They cut into the very faces of the steep acclivities, and mountains are formed into a succession of terraces, with parapets to keep the soil from crumbling or being washed down, and to retain the waters required for irrigation. Manual labour is alone used. They raise on these terraces sufficient grain to support them.

Descending to the plains and valleys, and amidst the zemindaries, the modes of agriculture frequently vary, but, in all, rudeness seems to prevail, and the cultivators are subjected to various deductions.

Mr Johnstone, in his articles on the agriculture of Hindostan, remarking on the state of the zemindaries and the condition of the ryots, observes, as we here have, with undue severity—

“ For some time after the British became masters of Bengal and Behar, the raising of the revenue was left in the hands of the native zemindars. These met on an appointed day annually, for the purpose of settling the *Bundobust*, or rents and leases, for the following year. The zemindaries (topographical divisions of the land so called) were exposed to public auction, and let to the highest bidder.

\* Coasting and entrepôt duties have from time to time, been abolished and orders have recently been sent to India to abolish all export duties as soon as the finances will admit. — W. H. S.

Such competition, at first sight, appears equitable, and certainly favourable to the government treasury, but it was soon found to insure ruin to the ryots as well as to the zemindars themselves, and, consequently, eventually to diminish, or almost annihilate the revenue

‘ I shall not follow the zemindary system through its innumerable shades of variation, for it is in principle the same from Cape Comorin to the Himalayah, but I will merely touch, in outline the system pursued in one district

“ Let the neighbourhood of Benares be the example There each zemindary is subjected to the following officers —

“ The *Zemindar*, who, in addition to the rent he exacts, is entitled to perquisites and privileges too numerous to particularise, for instance, every artisan works for him at a less price than for the tenants of the land within the zemindary, and he extorts involuntary benevolences from the cultivators at certain seasons

“ The person next in rank is the *Putwari*, the factor, or keeper of accounts between the proprietor and tenants he collects the rents, whether paid in grain or money, measures the ground, and, in the absence of the zemindar, presides as a judicator of the petty differences among the tenants The farmer, or ryot, pays this officer’s salary, his due being a seer and a half of grain for every hundred seers paid to the zemindar\* For sugar, cotton, &c, not consumed on the estate, a certain portion of their price is paid to the zemindar, and for each rupee† paid to him, the putwari receives half an anna, or about one-thirtieth

“ Next to the putwari is the *Byah*, or grain weigher, who divides the grain between the zemindar and the tenant by weight He is paid by both parties, at the rate of twelve seers for every hundred maunds weighed ‡

“ Where there are such officers, all able to favour or to oppress the cultivator, and all natives of a country where morality is at the lowest possible ebb, it is needless to observe that bribery is rife But, admitting that by the assistance of such petty corruption the ryot is able to pay a few maunds of grain less than are the zemindar’s legal right, yet still the heavy exaction which they thus pay, and the contributions they have to make annually to the smith, carpenter, and other artisans of the zemindary, independent of paying for each job, accumulate into such a large aggregate, that little more is left than suffices for the bare support of the cultivator

‘ A system better contrived strenuously to depress the farmer, and consequently to prevent the improvement of agriculture, the ingenuity of man could not well devise

“ The village Brahminical priest is another of the drains upon the Hindoo cultivator As each crop is collected in, this functionary is sent for to bless the

\* A seer is equal to two lbs English † A rupee is two shillings English  
‡ A maund is forty seers

heap, for which he receives as his part one measure of the grain in the fan, or implement used in winnowing it \*

"There are grants existing, creating *Talooks*, or districts, which the holder, or Talookdar, obtained by purchase, or as a reward, and empowering him to pay at once to the treasury, others conveying the lands to be held as *Altungha*, hereditary, and exempt from contribution to the revenue, and a third in which the revenues were devoted to religious purposes ('*Asiatic Researches*,' 11) but these are so rare that they deserve no more than this transient notice

"The system almost universally obtaining, was that which allotted the possessory right of lands varying in extent from ten to thirty English acres, to the ryots, or terre-tenants These they held under a lease, or pottah, conditioned to pay a certain rent, generally in grain, and varying in amount from one fourth to one half of the annual produce Such rent constituting the revenue of every sovereign, was collected by means of *zemindars*, who were neither more nor less than local revenue officers appointed by an official writing minutely detailing their duties But in all, the zemindars collected the revenue arising from the land, with the duty superadded of being judges of the disputes and offences accruing within their districts †

"It does not alter the character of the appointment or the interest taken by the zemindar, that it was usually renewed to his heir, because such heir could not enter upon his office or perform its duties until he had received the zemindary *sunnud*, or official appointment, and this was in general not obtained without

\* (Ind Rec 11 200) In Mysore Dr Buchanan found that the farmer had to pay the following contributions from his crop —

His heap of grain is usually about 3000 seers	Of this is first set apart—	
For the gods or rather for the priests		5 seers
For charity to the Brahmins and other mendicants		5 "
For the astrologer		1
" hereditary Brahmin of the village		1
Barber		2 "
Potter		2
Carpenter and blacksmith		2 "
Washerman		2 "
Measurer		4
Bendle		7 "
Chief of the village		50
Accountant (at various times)		200 "
Watchman		10
Conductor of the water		20 "
		314

This leaves a remainder of 680 seers Of this government takes ten per cent and then half of the residue so that when all these drains have been satisfied and the grower remains in possession of 1200 seers of rice and from these he has to satisfy the zemindar and his officers Upon his other crops the exactions are different, but quite as heavy in proportion to their value (Buchanan's Mysore 1 26.)

It may be remarked that the ryots are liable to another inconvenience if their zemindar be in arrears to government, for they are not allowed to touch the produce of their lands until the government is satisfied with the security given by the zemindar—and this, when cotton is cultivated, is a very serious injury

† The remarks of Mr Johnstone are apparently not applicable to all India Certainly not in their severity Most of the zemindars are, in the opinion of an authority in whom we have the utmost reliance 'in a flourishing condition and the revenue of Bengal and the North West Provinces is collected without the slightest difficulty, or arrears'—W H S



heavy payments to superior officers, which will be viewed as legitimate fees by some, but by others as bribes to be re extorted from the miserable ryots

"The 'Institutes of Timour,' the founder of the Mogul Empire, direct the cultivators of the soil to be protected, wisely assigning as a reason, 'that the ruin of the subject causes the imperial revenues to diminish,' and the same policy is recommended in the more modern royal dictates of the *Ayzen Acbery*, but these were only theoretical views of the court and there was no trace of their spirit in practice. The zemindar was directed to be checked by the canongo and tharkar, other officials attached to his zemindary, but in practice they only increased the number of those who preyed upon the ryots

"By giving the perpetual proprietary to the zemindar, the power, the uncontrolled and hereditary power, to continue his oppressions has been conferred. It is true that the ryot has also the hereditary right of occupancy, but there is no sufficient security to him that the zemindar shall not impoverish, or even force him to abandon his land, by increased exactions, whenever pique or necessity shall suggest the oppression. This is not what was intended by Marquis Cornwallis, for he replied to an objection of Mr Shore (afterwards Lord Teignmouth),—'If you mean that after having declared the zemindar proprietor of the soil, in order to be consistent, we have no right to prevent his imposing new *abooabs*, or taxes, on the lands in cultivation, I must differ from you in opinion,—unless we suppose the ryots to be the absolute slaves of the zemindars, every biggah of land possessed by them must have been cultivated under an express or implied agreement, that a certain sum should be paid for each biggah of produce, and no more. Every *abooab*, or tax, imposed by a zemindar above that sum is not only a breach of that agreement, but a direct violation of the established laws of the country. The cultivator has in such case an undoubted right to apply to government for the protection of his property, and the government is at all times bound to afford him redress'

"The intention to protect the ryot is manifest, but that the intention has been ineffective, that the legal institutions have not been sufficiently protective, and that agriculture and the revenue have consequently declined, are notorious facts \*

"The poverty of the native ryot† is so extreme that he cannot afford in most instances, to fatten even poultry for the market, much less sheep‡ or oxen. The money to be advanced for their food is beyond his means, and even supposing he has the industry and foresight to suggest and sustain the attempt, in the far greater majority of instances he must be checked by being unable to purchase the grain necessary for the animal, or to risk what would sustain his family for months on the distant promise of receiving it again with an increase—a promise

\* This is quite wrong neither the agriculture nor the revenue have declined. Look to the commercial and financial returns from India for the last twenty years.—W H S

† There is not one ryot's wife in a hundred between the Himalayas and Cape Comorin who has not some gold or silver ornament upon her person!—W H S

‡ The ryot does not keep sheep. It is a particular class, the dhunglers or shepherds, who keep flocks.—W H S

so liable to be frustrated by the rapacity of his landlord, and the uncertainty of his tenure

"It would not be difficult to demonstrate that all the obstacles to improvement which have been enumerated—even the want of capital—arise immediately or remotely from one source—national ignorance, and the late Lord W Bentinck was never more correct than when he said, that for all the evils of the Indian system—the poverty, inferiority, and degradation to which it gives rise—knowledge, knowledge is the universal cure

"Lord William Bentinck has recorded his opinion in favour of establishing small farms throughout the provinces of India, as seminaries, or rather as examples of improved modes of cultivation they would afford not only illustrations of what can be effected by an improved system of farming, but also be the nurseries from whence the seeds and plants of better varieties might be diffused"

In the year 1820, the Agricultural and Horticultural Society of India was instituted at Calcutta It has since then become useful and prosperous It has a valuable and rapidly increasing library and museum\* There are, also, several provincial societies

\* In 1840 the Agricultural Museum of Calcutta received seven large and fifteen small packets of grape seeds of sorts fifteen large packets of musk melon seed four ditto water-melon one ditto large istambol or scented melon three ditto small istambol or miniature scented melon three ditto large pomegranate seeds, two ditto small shah toot h, or royal mulberry, three ditto apple pips one ditto pears, one ditto quince and two ditto large pumpkin

This handsome consignment of seeds has been received from Afghanistan from Colonel Stacy who resides at present at Candahar The flavour of the musk melon is described by the donor as delicious and so of the water-melon The istambol melon is not eaten but is carried in the hand to smell to as this variety especially the little istambol melon is much esteemed for its lovely scent The shah toot h or royal mulberry, is nearly the size, and has all the flavour of the English kind

These seeds were freely distributed to the members present, and but few now remain for applicants.

A small bundle of flax prepared from the rheea plant (*urtica mnes*) of the province of Assam—presented by Captain Jenkins.

This fibre is described by Captain Jenkins as being in universal use for the manufacture of fishing-nets and lines At present there is little trade in it being only grown in such quantities as the fishermen require and the present cost is ten rupees a maund but as the plant can be grown with the least possible trouble and the preparation of the flax from it is a very facile process, Captain Jenkins states, that there is no doubt the flax can be grown at half this price In texture it is remarkably strong and is very likely to make good lines

A sample of the root of a plant which the natives use as glue and call "sernis" The plant is not cultivated but grows wild in quantities near Candahar—presented by Colonel Stacy

Dr Spry mentioned that he had tried some experiments with this gelatinous root by boiling and macerating it in water but he had been unable to extract any strong adhesive quality Further trials would probably give other results

Samples of tea from Assam consisting of 'Young Hyson,' 'Tochu Peko' 'Pouchong' 'Hyson Chater' 'Souchong' 'Big Gunpowder' 'Hyson Skin' and 'Little Gunpowder'—presented by the Secretary

The Honourable the President on these samples being submitted begged to mention to the meeting the circumstance that the society was indebted for these samples to the secretary who had obtained them from the Assam Company as one of the shareholders whereas the society who had made an application for a supply two months ago had not received a particle although he understood that some was coming He thought in future, whenever the society had any application of this sort again to make it had better go direct to government, instead of applying indirectly through committees

A large bale of acclimated Upland Georgia Cotton—presented by Colonel Skinner

Three samples of indigenous cotton from Jalowra in Bundelkand—presented by Captain Showers

Specimens of two kinds of gum, one known by the people of the jungles as the piasal or bjes-

There is an Agricultural and Horticultural Society at Madras, and one also at Bombay

## CERIALIA OF INDIA

OATS (*Avena sativa*)—About Allahabad oats are called *bilatee jou*, foreign barley

*Kinds*—*Districts*—Only one kind is grown here, and this chiefly in Behar and the North-Western Provinces

sar very much resembling the kino of the *butea frondosa*, of a beautiful lake colour and the other the gum of the bahera tree

Lieutenant Kittoe, who presents these to the Society states that the leaf of the tree whence the galls are obtained yields a yellow dye as well as the chips of the wood The Bahera tree\* yields an immense quantity of gum which appears in quality to resemble the ordinary gum Senegal of commerce and is largely partaken of by the Choors and Coles as food It could be collected Lieutenant Kittoe states, in large quantities in the Midnapore forests The Pesar another tree of these parts yields a very hard adhesive gum of a clear white colour, and there are several gigantic creepers that also yield gum In the passes there are many fine Saul timber trees, and the mountain ash thrives well, and is much esteemed by the natives for bangles bows &c &c Ebony also is plentiful and there is a powerfully aromatic grass resembling the famous grass oil of Mhow The country (Upper Baumunghatti) would do well for any kind of cultivation

A small bale of Egyptian cotton brought from Alexandria—presented by Colonel Frith

The plant and fibre of the Moogah—presented by Mr D W H Speed

The fibre is a good deal used by the natives and appeared on examination to be the Sansivera Zeylanica of Roxburgh Mr Speed found that it was prepared from the leaves which were gradually beat either after or without soaking in water On testing the strength of a single fibre Mr Speed found that the thicker bore seven ounces while the fine broke at five ounces The juice of the root of the plant is esteemed in fevers by the Hukeems

Minute specimens of China nankeen cotton and Beerbhoom brown cotton—presented by Mr J W Laidlay

Mr Laidlay in a recent visit to the straits, has been able to obtain some seeds direct from China of the Nankeen cotton plant, and is now engaged in experiments upon the usefulness of this variety of the plant in the climate of Bengal The brown cotton of Beerbhoom, of which Mr Laidlay furnishes the sample is the indigenous sort that he is anxious to supersede

Nine Brazil yams brought to India in the ship *Alerton*—presented by Mr Bellars

Mr Bellars has tasted a part of the supply and finding them very superior to what Bengal furnishes he thought they might be worth the acceptance of the society

Dr Spry mentioned, that he had lost no time in forwarding a moiety of the supply to the nursery and distributing the remainder where attention was likely to be paid to their cultivation

Two apricots (in spirits) grown at Barripore—presented by Mr R S Homfray

A bundle of fibre prepared from the plantain tree and a small quantity of hemp from the aloes—presented by Mr Michael Betts

In his note which accompanied his present, Mr Betts states that having been attracted by a remark in the "London Price Current, of the 2nd of December last from the respectable house of Messrs Fry Griffith and Co that considerable supplies of a new sort of hemp from the stalk of the *plantain tree* had realised from 6d to 8d per lb he turned his attention to it and endeavoured to prepare the article but the process he adopted was very slow and he thought that it would not answer Mr Betts asks for any suggestions that the society might be able to offer and it was mentioned that the mode of preparing the fibre in Manila as described in the first volume of the "Transactions of the Society might be recommended

Apricot cherry melons cabbage clover (two sorts) almonds cypress, quince and China aster seeds from Aghhanistan—presented by Colonel Smyth

Colonel Smyth fears that few of these will grow in a Bengal climate the rains being so heavy Nematich and Mhow are he thinks the finest climates for acclimating cold country plants in, and considers it a pity there is not a horticultural garden at these stations

A log of oak walnut and cedar (deodar) from the Himalayas—presented by Captain Cairne

Plant stem flower and bark of the paper plant of Nepal, called in the language of the country Dairecon or Dairecon (*cowa* being for a tree) from the hills about Darjiling—presented by Dr Pearson, civil surgeon at Darjiling

\* *Terminalis Biltica*, *Rorb* W H S

*Soil*—The soil which grows the best oats is a light loam, or chur land, that has been subjected to inundation

*Seed*—It is difficult to get unmixed seed, or seed that is free from admixture of barley or other grain The quantity to each biggah of 14,400 square feet

Dr Spry in submitting this specimen to the meeting mentioned that a full description of this plant, which is the *Daphne Cannabina* of Lawreire and D Odorata of Thunberg has been fully described by Dr Wallich, in the thirteenth volume of the "Asiatic Researches, and is the identical plant whence the almost imperishable paper of Nepal (the particulars of which, by Mr Hodgson and Dr Campbell are to be found recorded in the fifth volume of the 'Transactions of the Society') is prepared. The flower is full of odour and much resembles the *jessamine* in smell A sketch of the plant on *Nepal paper* is to be found in Dr Wallich's description For its fibre, too, the plant would seem to be well worthy attention

Seeds and corms of various kinds from the hills about *Darjeling*

Dr Pearson who forwards these as a contribution from the Darjeling Plantation Society mentions that there are at least, three if not four sorts of oak at Darjeling One an immense tree, affording a dark mottled timber, in appearance much like the English heart of oak, from forty to sixty feet long and six or seven feet in diameter or even large still One sort is what is called *Phalang*,\* in Nepal, and is said to resemble the "she oak" in Australia. It grows to forty or fifty feet long, but Dr Pearson has not seen any that are more than two feet and a half, or three feet at most, in diameter The wood is close-grained, reddish brown in colour and mottled and exceedingly tough though easily split It makes excellent tool-handles superior, indeed to ash itself and would Dr Pearson considers, be valuable for gun carriages for, although it splits readily yet it is a tough strong wood and does not fly in splinters besides warping less, and being less affected by the weather than any wood with which Dr Pearson is acquainted

Some of the seeds forwarded are reported by Dr Pearson to afford flowers of a delicious fragrance one resembles a myrtle—a second a cherry—a third, a chestnut—a fourth a large tree, having a broad leaf and most beautiful flower which hangs in clusters, and varies in shades of colour from deep crimson to light scarlet—a fifth are the seeds of a large, tall, and very beautiful tree, having a leaf and wood which is very like the holly—and a sixth, is the *Geelah* † Dr Pearson further stated that the consignment of plants sent by the Society to the Darjeling Garden, reached for the most part safe and in tolerable good order A second supply of vines currant, apple and pear-trees, from the Cape sent up by Mr Bruce, reached in such excellent condition that Dr Pearson is anxious to give the particulars of packing It appears the plants were packed in a long tin case with a quantity of reddish earth around them quite wet, so much so that, at first view Dr Pearson thought them rotten but on examination found all to be alive and some to be budding Some plants sent from America which were packed amidst dry moss without earth and in tin cases reached in a dead state The Darjeling garden is getting on better Dr Pearson states, than could be expected English potatoes and hive bees are much wanted at Darjeling

Specimens of ginger cotton and wild yam produced in the neighbourhood of Darjeling, and collected in the valleys by the Lepchas presented by Dr Pearson who mentions in his note that the yam plant is a creeper having a leaf much like a *pawn leaf* but twice the size at the root of which the yam is found at a depth of from three to four or five, and even six feet It is quite uncultivated even self sown yet of a flavour and whiteness far surpassing that of the yam of the plains some specimens are, however of a pinkish purple hue Dr Campbell and Lieutenant Montgomery, from whom these particulars were obtained by Dr Pearson saw the plant growing in abundance on a recent expedition which they have been making In the *Lepcha langunge*, the plant is called *Bookli*, in *Purbuttiah* *Turool* and in *Bhoteeah* *Kew*

The ginger was pronounced to be a very superior article and well worthy of attention The cotton is indifferent.

Tea from the *Tipperah Hills*.

Mr Watt who forwards the leaves, states, that while on a tour in the *Tipperah Hills* last month (February) his party came on large tracts of trees from which the leaves sent were taken and considering it to be the tea plant a quantity of the leaves were taken into camp and prepared in a rough way by roasting in a fry pan and then infused in boiling water The result was considering the hasty manner in which the article was got up, the infusion had really a very agreeable flavour of ordinary tea.

The examination of the leaf excited much curiosity among the members present, from the circumstance of such an abundant supply of tea being found so near home as the *Tipperah Hills*, and although it was difficult, from the leaf merely to pronounce whether it belonged to the genus *thea* or *camelia*, yet, in point of importance, the distinction was not likely to prove of great consideration The fact of the specimen sent imparting the flavour of ordinary tea shows how closely allied these two genera are

\* *Phalang* by the *Parbuttees* † *Quercus Annulata* —W H S

† *Mimosa Scandens*.

varies from ten to sixteen seer, and it is generally thrown broadcast, though where the drill is used the crop is better and more even. The sowing is in October and November.

*Cicer arvense*—This is known in England as the chick pea, and is the gram of the Bengallee English. In Hindostance, *chenna*.

The above plant has purple flowers, but there is a variety characterised by its petals being white. This is called in Bengallee *kahlbut*, or *sadabut*.

*The Lentil (cicer lens)*—This is extensively cultivated in Bengal and the adjoining provinces, being called by the natives *musoor*.

For these leguminous plants the same cultivation is required.

*Soil*—This ought to be light and dry. In general the poorest spots are

Thirteen specimens of wool from various quarters of the globe—submitted by Mr Robert Smith.

China aster plants in full bloom—exhibited by Dr Spry.

These plants were raised from seed furnished by Colonel Smyth, of the third cavalry when at Cabul. The flowers vary in colour. Some are white others purple and one plant is giving double flowers of a delicate peach blossom in colour.

Coffee hemp and seeds of the arnatto and sapan trees—presented by Dr Strong.

Dr Strong designs the bukhum \* or sapan seeds for distribution among members as it forms a prickly good hedge and is a valuable wood for its dye. The coffee was grown by Dr Strong at Rassapughah and was dried as recommended by the London brokers, without sun and has not the marks and blemishes the sample formerly sent to London by Dr Strong had which had been dried upon a masonry floor and in the sun, which causes the berry to crack dries it too much and, in fact spoils it for taste and sale.

Fleeces of four sheep that obtained the prizes at the last Cattle Exhibition. No 1 an imported Merino ram. No 2 a Merino ram lamb bred in 1839. No 3 a Merino ewe lamb bred in 1839. No 4 a half bred ewe lamb by a Merino ram and Patna ewe in 1839—presented by Mr Gibbon.

Six nauuds of the Mauritius pois noire or black bean from the society's nursery.

A bag of the pois noire direct from the Mauritius.

Mr Hugon who forwards this present states that on the island of Mauritius these beans are sown in the old cane fields and by the thick covering they afford the fertility of the soil is restored in two or three years. It is of hardy growth and hardly requires any care. The bean affords a cheap and good nourishment for cattle.

It was also stated at the meeting that these beans when young afford an excellent dish for the dinner table and in Hindu tan is an admirable substitute for the broad bean of Europe.

A sample of cotton from the third generation of acclimated Peruvian plants—presented by Mr W C Hurry.

Mr Hurry states that he has no doubt that any quantity required could be grown in Bengal. The plants are remarkably large and woody and bear well †.

The leaves flower and fruit of the purple-fruited Granadilla described in Part XVI of the *Lyclopædia of Gardening* p 983—presented by Major Wood.

A machine for separating cotton from the seed. This machine was made as an improvement on the Guzerat Churka. It has been invented by Mr John Potter, of Manchester and differs from the machine lately sent out to India as the invention of Mr Houldsworth of Glasgow. Any number of them can be set in motion by an adequate moving power. A bullock could turn twenty or thirty of them. That shown to the society is one of several lately imported into Calcutta—exhibited by Owen Potter Esq.

A sample of black pepper, from a garden at Barrapore, about sixteen miles from Calcutta—presented by Mr Homfray.

This pepper is very good of its kind and the plant whence it is obtained grows luxuriously at Barrapore where, it appears it was introduced some years ago by a gentleman from the eastward. The tree yields abundantly and grows without requiring any husbandry. Mr Homfray will readily furnish cuttings to any one desirous of obtaining them.

\* *Cresalpinia Sapan*—W H S.

† This remark coincides with the experience of Mr Quantin at Palmasdeah, near Sook Sangor where the Peruvian cotton seed has improved under acclimation—W H S.

allotted to them, and, as no manure is given, the produce is very small In Mysore *C arretinum* is often sown alternately with the *cyunosurus corocanus*

Ploughings, varying from five to eight in number, are given to the land during the last days of August, or early in September

About sixteen seers of *chenna* are sown per biggah in Poonah and other districts of western India About twenty seers are so employed in Bengal and the neighbouring districts Of the lentil, not more than one fourth so much seed is used, as it is grown conjointly with other crops

Chenna is sown in drills nine inches apart, but those are at much wider intervals to allow for the other crop The seed is covered in by drawing another furrow with the plough close to the one in which the seed has been inserted

No hoeing or other labour is bestowed upon them The produce is ripe in three months after seed sowing

The crop is drawn up by hand, dried for five or six days in the sunshine, and the seed is trodden out. In Mysore they stack the crop for a week before they expose it to the sun

Of chenna about six or seven maunds per biggah is an average crop, and of the lentil somewhat less than half that amount

In Bengal, and in the vicinity of the Ganges generally, *chenna* is the grain usually given to horses, but in Mysore, and other more southern parts of the Peninsula, it is less generally cultivated, and is used by the natives as food, as also extensively in Bengal, when parched, or separated from the husk like split peas

*Black Gram (Phaseolus Max)* or Kolaye, is a pulse, when split, as peas, it is used as Dall or Doll, the real Dhall being produced by the *Cystus cajan* It is used as food, but is considered inferior to the green gram, or *P mungo* the latter is sown about Poonah in June, and four gallons of seed are sown per acre in Mysore In the North Circars it yields about thirty-fold In Behar, &c, it is sown among the millet crop, about half a seer per biggah and this produces usually three or four bushels During the rains, it is sometimes, in the North Circars, sown upon high-lying soils, which do not long retain moisture in excess, but the chief growth is upon rice lands, during the cold season Immediately the rice has been cut, the ground is watered, unless rain occurs, and a slight ploughing given The grain is sown whilst the soil continues moist, and the harrowing is performed by the aid of a bush No further attention is paid to the crop The copious dews of the season afford it sufficient moisture In about twelve weeks from sowing, the reaping takes place

The grain is nutritious and agreeable in flavour The stems are not used as fodder, indeed, the cattle usually reject it—and with those which do not, it is said to disagree

*P radiatus* —In all Southern India, a soil moderately tenacious is preferred,

if not liable by inundation, or low situation, to be troubled by excessive moisture

*Sowing and Cultivation*—The ploughing in Mysore for this crop, commences about the last week in February, and is repeated three times between that and the second week of March. A second crop is sown about the middle of September. If there has not been rain recently, before the first ploughing, the field must be watered. The seed is sown about half a bushel per acre, immediately before the third ploughing, which serves instead of any other mode of covering the seed. The crop is neither manured, watered, nor weeded. In the Northern Circars, and other parts of this side of India, it is generally sown about the close of the rains, early in November, either alone, or with some culmiferous plant. In Nepal, they sow twice annually—in May or June, and in August or September. It is there often sown, in the months first named, along with *Bhutmas*. It ripens in August or September, and is then pulled up by the roots, and the *Bhutmas*, which is then only in flower, is allowed to remain in the ground until ripe, in October and November. Double crops are not at all general in Nepal, as they are in the plains—the above two instances being almost the only ones in use. The summer crop of oord is less productive, but its dal is reckoned of higher flavour than the autumn one. The latter furnishes all of this article used in feeding cattle and horses, and is the only grain given to live stock in Nepal. The after culture of the leguminous crops consists of repeated weeding with the hand-hoe, and their reaping is performed either by pulling the pods from the standing crop, or by pulling the crop up by the roots and beating out the seed. In Mysore, the harvesting is nearly similar—when ripe, the plants are pulled up by the roots, stacked for three days, dried in the sun for two more, and the seed is then trodden out.

The seed of this plant is more esteemed than any other pulse, and the straw, on this side of India, is considered a nourishing fodder, but in Mysore it is held to be pernicious to cattle, and is burnt, or thrown upon the dunghill.

*P aureus*—This is cultivated, like the last named species, in Bengal and Nepal.

*P torosus*—Seems to be a crop peculiar to Nepal.

*P acontifolius*—Is much cultivated in Oude, and in parts of Western India. It is sown in June, and harvested in November.

*P calcaratus*—This species is cultivated in Mysore. Dr Roxburgh says that in the botanic garden at Calcutta it thrives well, continuing in blossom and ripening its seed through the year.

*Sesame (sesamum orientale)*—This grain is cultivated throughout India.

The *S indicum* of Linnæus is only a robust variety of this species, cultivated at a different season. This plant is not unlike hemp, but the stalk is cleaner and semi-transparent. The flower also is so gaudy, that a field in blossom looks like

a bed in a florist's garden, and its aromatic fragrance does not aid to dispel such delusion

It flourishes most upon land which is light and fertile. The fragrance of the oil is perceptibly weaker when obtained from seed produced on wet, tenacious soils

A gallon of seed seems to be the usual quantity sown upon an acre. In Bengal, the *S orientale* is sown during February, and the crop harvested at the end of May, but the *S indicum* is sown on high, dry soil, in the early part of the rains of June, and the harvest occurs in September. About Poonah it is sown in June, and harvested in November. In Nepal two crops are obtained annually: one is sown as a first crop in April and May, and reaped in October and November, the other, as an autumn crop, after the Gohya rice, in August and September, and reaped in November and December.\*

*Cultivation*—It is cultivated precisely like the *Phaseolus mungo*

*Harvesting*—In Mysore, after being cut, it is stacked for a week, then exposed to the sun for three days, but gathered into heaps at night, and between every two days of such drying it is kept a day in the heap. By this process the pods burst, and shed their seeds without thrashing.

It is cultivated for its oil (the gungeh), which is the one chiefly employed by the natives in their culinary operations. The oil is certainly fitted for the purpose by its aromatic savour.

The flour is used, after the oil is expressed, in making cakes. The straw is consumed as fuel and as a manure †

*Mustard (Sinapis dichotoma)*—This plant is commonly cultivated near Calcutta, in the twenty-four Pergunnahs.

Alluvial soils on the banks of rivers, or upland soils which contain rather more than the usual proportion of alumina, but in either situation, moderately fertile are best suited to this crop.

The finest crops in Bengal are grown upon the banks of the Ganges. When the waters subside in October, which is the general time for sowing it, and the surface of the soil deposited sufficiently dry to be stirred into a fine tath, the seed is sown broad cast, and no other pains taken to cover it than by drawing the branch of a tree over the surface.

The *S ramosa* is the only one cultivated at Poorneah as a separate crop, the white seeded being grown with wheat and grain, one seer of seed being sown on a biggah.

In Nepal, much attention is paid to the cultivation of this crop.

*Use*—It is cultivated here for the sake of its oil. The essential oil, from which arises its pungency as a condiment, is so much inferior to that produced in Eng-

\* Trans. Agri. Hort. Soc. IV. 132.

† Buchanan's "Mysore," 195.



land, that the flour of the English seed, after the fixed oil has been expressed, is imported into India for domestic use

The potato (*solanum tuberosum*) produced in Bengal is little inferior in flavour to that grown in England, though the size of each tuber and the weight of crop are smaller \*

There is one important quality in the potato, pointing out its culture as especially meriting encouragement, namely, that a dry season, which is so unfavourable to the rice crop, is beneficial to the potato

Dr Tennant states, "that some years previous to 1797, a gentleman distributed two boat-loads of potatoes to supply sets in the neighbourhood of Cawnpore, and the quantity annually cultivated had gradually continued to increase from that time"

Colonel Sykes says "wheat is dear in India,† in comparison with other grains, which are numerous, and in India wheat forms the food of only a small part of the population, and probably seventy or eighty millions of souls live upon grains whose names are scarcely known except to the learned in Europe, but which, nevertheless, are productive, nourishing, and wholesome It is equally a mistake to suppose that the people of India live upon rice That grain is very frequently twice the price of wheat (excepting in a few localities), and can only be used by the masses who dwell in low lands where Nature floods the soil periodically, and where the absence of any marked inclination in the country admits of the easy retention of the water Wherever works for irrigation are necessary, an enhanced price of the products is the consequence, and in proportion to this enhancement is the limited consumption by the people Rice, therefore, produced by artificial irrigation, is scarcely within the reach of the lower classes

† The following are some of the bread grains produced in India and Arabia—Belonging to the Khurreef, or wet season harvest, jowaree, or jondla (*holcus sorghum*, or *andropogon sorghum*), is most extensively cultivated Of this

\* This remark has reference only to Lower Bengal where the soil abounds with sand, but in Bhubulpore in Poornah, in Tirhoot &c I have seen them † says Mr Speer as large-sized as the average in England or Ireland—say three or four to the seer

B E N G A L			E N G L A N D		
Averages for July 1845 for Fifty three Towns			Averages November 1846 Mark Lane		
Quantity of Wheat procurable for the Rupees of 2r	Quantity of Flour procurable for the Rupees of 2r	Quantity of Dhall procurable for the Rupees of 2r	Quantity of Wheat procurable for the Sum of 2s	Quantity of Flour procurable for the Sum of 2s	Quantity of Peas procurable for the Sum of 2s
About 57½ peed or 116½ bush per quarter	About 31 pounds	About 49½ p us 16 or 22½ cwt per quarter	About 1 peck at the average market quotation of 57s per quarter	Ab. of 11 pound at the average market quotation of 52s for the sack of 280 pounds	About 10 pounds at the average market quotation of 32s the quarter

NOTE.—Average weight of wheat is 41½ lb by pounds to the bushel eight bushels or 480 pounds to the quarter—It is 10 times as dear in India as in England, and 10 times as dear in England than in India the averages in India being the disadvantage of being founded upon retail prices at great distances where there would necessarily be a considerable deduction and consequently the retail prices Flour was about three times dearer in Mark Lane than in India and peas more than twice as dear

species there are eight varieties. From a single head of one variety (Shaloo), taken at random, I have obtained 2895 perfect seeds. The grain, which is about the size of white mustard seed, is sweet, palatable, and nutritive. The next most commonly cultivated grain is bajra, or suggoora (*holcus spicatus*, or *panicum spicatum*). Under favourable circumstances there are from two to eight heads to one stalk, and I have obtained 2120 seeds from a single head, which, in the case of eight heads, would give a return of 16,960 for one. The grain is somewhat larger than canary seed. The grain is rahle, or kungnee (*panicum italicum*). There are two varieties, each stalk generally with one head, giving a return of 1850 for one. The next grain is bhadlee (*panicum miliaceum*), the plant has sometimes three or four stalks, but each with one head only. The grain bearing panicums, however, are not limited to these, for so numerous are they in Ceylon, that Moon, in his 'Catalogue of Ceylon plants,' gives Latin names to no less than thirty distinct species. Kodroo is the next grain (*paspalum frumentaceum*), one of its Mābratta names is bburtee, in allusion to its extraordinary fertility. The stalks from one seed vary from four to eleven, but on the edges of a field, where the plants have an opportunity of spreading, I have counted twenty stalks radiating from a single root. Each head averages 1083 seeds, and for the plant with twenty stalks, there would be a return of 21,660 for one. But on the 15th of September, 1825, near Serroor, I counted thirty three heads of grains on a single plant, each head averaging 1860 seeds, giving the astonishing return of 61,380 seeds for one. The average of seven heads to a plant would give a return of 7581 for one. The grain is the size of a pin's head.

"Mukka, or Indian corn (*Zea mayz*), comes next. It is not usually cultivated as a bread grain, but when nearly ripe, the head is fried and eaten with butter or sugar. Should the farmer have more than he can consume in this state, the rest is allowed to ripen, and the seed is ground into flour. The stalk sometimes reaches the height of from nine to twelve feet. This is the 'Indian corn' whose importation into England from America has so essentially contributed in the late scarcity to relieve the sufferings of the people.

"Rice is cultivated wherever physical circumstances are favourable to it. It is called dhan or bhat (*oryza sativa*). The natives in Western India consider that there are at least eight or ten species of rice, and very many varieties. But Mr Moon, in his 'Catalogue of the Plants of Ceylon,' gives the names of no less than 160 varieties, from the wild rice to the most delicate, each having its Cingalese native name—bird's beak, melon, sprigless, red hare's chin, leafless, white jointed gold, rattan leaved, &c, &c, and each of these names Mr Moon has translated into English. The return in the Deccan is reckoned at about thirty to one. A very important grain is natchnee, or ragee (*eleusine coracana*, or *cynosurus rotacanus*). The grain is much valued by the poor, from its hardiness, abundant return, wholesomeness, and cheapness. The return is reckoned

at 200 for one Sawa is another cultivated panicum, but the species is not satisfactorily ascertained. The grain is of the size and form of a canary seed, but blackish, the return about 48 for one Wurce is the last of the bread grains of the khurreef, or wet-season harvest. This is said to be the *coix barbata*. It is small, of the size, colour, and character of the canary seed, the return, 240 for one. The pulses and legumes of the khurreef harvest are too numerous to detail.

“Of the rubbee, or spring, or dry-season harvest, the principal bread-grain produce is wheat, of which there are four varieties, two of which have such peculiar and permanent characters as to justify their being designated species. All the wheats are bearded. The first is bukshee, the next kupleh, the third kateh, and the fourth potayai. All the varieties have from two to twenty five stalks from the same root, and I have a specimen in my possession with twenty-five stalks. The first gives a return of about eighty-one for one. The kupleh has the husk closely attached to the grain, whence its name. Examining a field on the 20th of February, 1825, I found few plants with less than ten stalks, and the grains from some of the heads were nine-twentieths of an inch long, and the lower glumes were treble seeded, each head averaging fifty eight grains. This would give a return of 580 for one, but with twenty five ears the return would be 1450 for one. The kateh, so named from the seed terminating in a prickle, or point, gives a return of from 384 to 480 for one, and the potayai, which is a short-bellied grain, whence its name, returns about 210 for one\*.”

“*Urburee*, or chenna (*cicer arretinum*), forms a part of every farmer's cultivation. It is a highly valuable pulse, although chiefly given to horses in India as a substitute for oats and barley, it is used, nevertheless, by the people in a variety of ways, as split peas in Europe, and when parched, travellers live for days upon it on a journey, it is made into puddings and stirabout, and it is even used as a bread-grain, being ground into flour and made into cakes. There are four varieties. The returns upon a plant range from fifty-eight up to 170 seeds. The grain is about the size of a marrow-fat pea, and in form is like a ram's head (whence its name). The shaloo, or jowaree, is that variety or species of *holcus*, or *andropogon*, which is sown at the end of the rains, unlike the rest of the varieties, and it belongs therefore to the spring harvest. The grain is held in high estimation, and is the general food of those of the lower orders who do not inhabit the mountainous or jungly tracts. It ripens in February. I ascertained that the average return in one head of the plant was about 1514 seeds for one.”

“Jau, or jo—barley—(*hordeum hexastichon*) Barley is not generally cultivated, and is seldom used for bread, but it is necessary in many sacrificial ceremonies

\* The wheats ripen in January and February

of the Hindoos Four varieties are mentioned in Hindoo books" "On the 1st of February, 1826," says Colonel Sykes, "I found some fields of barley ripening at Tulleghur, on a table land in the Deccan, about 3000 feet above the sea, and in March I met with some fields in the desh, or open country, at less than 2000 feet above the sea, latitude 18 deg to 19 deg north, the plants averaging five heads of grain, and giving a return of 240 for one

"Watanah, or muthur (*pisum sativum*)—peas—are cultivated, but not so extensively as gram (cicer) They are used precisely as gram is used, but are not so much esteemed

"Dhall (*cytusus cajan*) This shrub produces the universal substitute for the split pea of Europe, but it is a much sweeter and more agreeable pulse than the pea"

#### PRICES OF CERALIA IN INDIA

WE are under great obligations to Colonel Sykes, for the following statistical prices &c., of the grains of India

"The first Price List (*see* Table I hereafter) gives the average number of seers per rupee of 2s at seven different markets in the collectorates of the Deccan, under the Bombay Presidency, from the years 1827 to 1845, inclusive The grains are wheat, rice, gram bajra, and jowaree In this table the averages are given in the local seers of the markets, for the most embarrassing discrepancies exist in the magnitude of measures of the same denomination even at neighbouring villages, and this fact should be generally known to prevent misconceptions in regard to the absolute value of local means of supply I present the table, also, in its present state, to warn the speculator against an entire reliance, even upon a system of averages for a series of years and particularly to guard him against a reliance upon the prices of any one year continuing in the following or succeeding years In fact, the produce of the khurreef harvest is dependent on the continuous but temperate supply of water during the monsoon and the crops should be equally removed from the extremes of being drowned or dried up In the rubbee, or spring, or dry season harvest, the crops are influenced by the amount of dew deposited, and departures from a normal state in all these matters produce the most violent fluctuations in prices For instance, the prices of the khurreef produce at Indapoor fluctuated from 10½ seers and 18 seers of bajra per rupee, in 1845 and 1832 respectively, to 58 seers and 54 seers in the years 1837 and 1828 respectively The extreme range between any one year at any one of the seven markets and any other year was, from 15½ seers at Indapoor, in 1845, to 64 seers at Kulus, in 1828 It will be observed, also, that the prices at the seven markets sometimes differ widely from each other in the same year In the produce of the rubbee, or dry-season crop, we find wheat varying in price, at Kulus, from 13 seers, in 1845 to 42 seers, in 1837, and at Sewnere, in the same years, from 13 seers to 44 seers The extreme range in the nineteen years, appears to have been from 12 seers, in the Mawals, or hilly tracts, in 1845, to 44 seers, at Sewnere, in 1837 These facts offer sufficiently instructive lessons and as the figures used are averages of prices for the year in each market the fluctuations within the year, were they known, might exhibit greater discrepancies

"Table II. presents the local seer measures of No. 1 reduced to Indian seer measures, each seer containing 14 400 grains weight avoirdupois of bajra, which, from the uniformity and unchangeableness of the seed, is looked upon as the best standard by which to fix the capacity of a native measure This plan, however, is not so efficient as one I recommended to the government of Bombay twenty years ago With a view to insure uniformity in weights and measures throughout the Deccan, I suggested that the

Company's rupee should be the multiple, whether for weights or measures and that measures of capacity, without regard to form, should contain a quantity of water at the ordinary temperature equal to the weight of a prescribed number of rupees. This would have insured sufficient exactness for all practical purposes and the means of testing the accuracy of the weights and measures would always have been available to the collectors and magistrates, and the native names of the divisions would have been preserved. This simple plan, however, remains to be adopted.

"The reduction of the local measures of Table II into Indian measures was effected by Mr Chapman (civil engineer for the Bombay railway) and must have been a work of infinite labour, as he had to ascertain the exact value of each local seer. The annual averages in Indian seers, so reduced were converted by me into avoirdupois weight, and consequent upon that last conversion the price per quarter English has been determined, and the following are the results —

GRAINS	Indian Seers per Rupee average of Nineteen Years	Indian Seers in Avoirdupois Weight.	Prices per Quarter English	
	number	lbs oz	s	d
Wheat	21 5 19ths	64 4	14	10
Rice	1 17 19ths	36 13	0	7 10ths per lb.
Gram	29 12 19ths	60 5	15	11
Jowara	30 7 19ths	62 10	11	7
Jowaree	44 10 19ths	100 8	9	6

"It is thus shown that an average of years gives 64 lbs 5 oz of wheat for 2s, 36 lbs 13 oz of rice, and 100½ lbs of that nutritious grain, jowaree (*holcus sorghum*) for 2s, a sufficient to support a man for two months at least if the dietary in the prisons of the North Western Provinces and Bengal be taken as a standard. In these prisons the daily allowance to a convict is from 1 lb to 2 lbs of wheaten flour regulated by the nature and duration of the hard labour to which the convict may be condemned. But Table II shows that in 1828 the average price of jowaree gave nearly 137 lbs avoirdupois for 2s, so that a man could support himself for much less than a halfpenny per diem and get fat upon it. But if reference be made to Table No I, it is seen that at Kulus in the years 1828 and 1843, there were eighty local seers of jowaree per rupee or 50½ Indian seers, equal to 204 lbs avoirdupois for 2s or more than 2 lbs for a farthing so that a man could live for less than a farthing per diem for the cost of meal. In wheat it is seen that the average prices in 1828 and 1836 were 30½ and 3½ Indian seers per rupee equivalent to 74 lbs and 75½ lbs avoirdupois. The above bread grains at such cheap rates, are within a moderate distance of the sea-coast. But Tables III, III\* III\*\* carry us further inland and the cheapness is very much greater. These tables are from Colonel Sleeman the commissioner of the Sagar and Nerbuddah territories, and give the prices at seven markets within his commissionship from 1831 to 1840, inclusive, and from 1843 to 1846, both inclusive but the prices of wheat gram and rice only are given. In these tables it is shown that at Baitool in 1843 as much as 167 lbs avoirdupois of wheat were sold for 2s, and at the seven markets enumerated the price varied in the year only from 5s 6d per quarter English to 6s 8d. In succeeding years the prices were slightly enhanced, but in 1846 famine prices ruled, owing to the failure of the monsoon that is to say at Baitool the price of wheat which in 1843 was 5s 6d per quarter, became 21s 8d. But the average prices of wheat at the seven markets for the years 1843, 1844, and 1845 was 7s 6½d per quarter, gram similarly was 7s 7½d per quarter and rice 4s 4½d per cwt. For the ten years preceding, from 1831 to 1840, the average price of wheat was 10s 6d per quarter (Table III\*\*).

"Table IV gives the prices at Hoshungabad for various periods upon the authority of Colonel Ouseley the principal assistant agent to the governor general. Mr Chapman has reduced part of this table to the price per ton in favour of wheat gram and rice, from the years 1822 to 1838, both inclusive. The prices are separately given for November the sowing time and June, the storing time. Prices are somewhat dearer at sowing time but not markedly so. The fluctuations in prices in this long period are less than might be expected. It will suffice to give the maximum and minimum prices of

wheat, gram, and rice, at the sowing or dearest time. In 1826 wheat was 5s the quarter, gram, 3s 7d per quarter, and rice 2 83 lbs for 1d, or 33 96 lbs for 1s, or 3s 3½d per cwt. In 1833 the monsoon failed, and in 1834 famine prices ruled in consequence. Wheat was 23s 10d per quarter, gram, 14s 9d per quarter, and rice was 1 46 lbs for 1d, or 17 52 lbs for 1s, or 6s 5d per cwt. The average prices for these sixteen years, including the years of dearth were, wheat, 10s 8½d per quarter, gram, 7s 11d per quarter, and rice, 4s 7½d per cwt. As I would rather lean to the unfavourable view of prices than to the favourable, I shall not give the prices in harvest time.

"Table V was supplied by the resident at Nagpoor, Colonel Spiers, and contains the accounts of the quantities, and the price of salt imported into Nagpoor in 1846, the cost of carriage to and from the coast, and the prices of grains for the years 1843, 1844, and 1845, but as the monsoon had failed in all these years, particularly in the last, little use can be made of this table. Nevertheless, wheat in 1843 was 113½ lbs for 2s or 8s 7d per quarter, and in 1845, the scarcity year, 59½ lbs for 2s, or 16s 1d per quarter, and the average of the three years was 88½ lbs for 2s, or 10s 10d per quarter. The average of the cheapest rice, 59½ lbs for 2s or 3s 9d per cwt, and the dearest 38½ lbs for 2s, or 5s 11d per cwt. The cheapest gram, 82½ lbs for 2s, or 11s 8d per quarter, the dearest 58½ lbs for 2s, or 16s 4½d per quarter, and the average 73½ lbs for 2s, or 13s 1d per quarter. It is seen from Colonel Spiers's memorandum that the cost of taking cotton or other produce from Nagpoor to Bombay and back is 50 rupees for 7 maunds (about 19s 5d per cwt), but this is for the double journey, and the single trip, supposing the cart loaded both ways, would cost 9s 8½d per cwt, or above 1d per lb. If the cost of carriage be in Nagpoor rupees the above sums are respectively 10s 5d and 7s 8½d.

"Table VI gives the prices of rice, wheat, jawatee, bajra, and gram, in Goozrat, at the cities of Ahmedabad, Khaira, Broach, and Surat, on the 15th of August, 1846. As the prices are only for one year, and that a year of scarcity, they cannot afford any guide for the usual prices in Goozrat. It will suffice to state that the average price of wheat at Ahmedabad, was 27 6 seers per rupee, (55½ lbs) or 17s 11d per quarter, the cheapest, was 35 7 seers (72 lbs), and the dearest, 24 seers (49½ lbs), while at Broach the average was only 12 63 seers (25½ lbs), the lowest price, 14 20 seers (28½ lbs), and the highest 11 20 seers (23 lbs). The average price of rice at Ahmedabad 25½ seers (52½ lbs), or 4s 3d per cwt, gram, 16½ seers (34½ lbs) per rupee, or 28s per quarter, jawaree, 34½ seers (71½ lbs), or 13s 5d per quarter, bajra, 27½ seers per rupee, (56½ lbs), or 16s 11d per quarter.

"Tables VII and VIII give the retail prices respectively at fifty-three and fifty-six military stations in the Bengal presidency for the years 1845 and 1846 of bread-stuffs, beef, mutton, butter, sugar, fowls, &c. These tables labour under great disadvantages, as they do not give the wholesale prices of any article, and are only for two years, and those years of comparative scarcity. But even with these disadvantages it is found that wheat in 1845 averaged 57 lbs 10 oz. for 2s, or 16s 8d per quarter, the first sort of rice, 25 lbs. 7 oz for 2s, or  $\frac{1}{10}$  of a penny per lb or 8s 9½d per cwt, and the third sort of rice, 45 lbs 4 oz for 2s or  $\frac{1}{10}$  of a penny per lb, or 4s 11d per cwt, dhall, or split peas 40 lbs 12 oz for 2s or 2s 6d per quarter, flour, 31 lbs for 2s, or  $\frac{1}{10}$  of a penny per lb, sugar candy 6 lbs 10½d oz per rupee, or 3½d per lb, salt, of the first sort, 20 lbs 9 oz per rupee, or 1½d per lb or 10s 11d per cwt. But these averages would be fallacious guides were the merchant to allow them to influence his purchases and the return, therefore, affords a useful lesson, that even averages in statistics may mislead. For instance the average price of rice is 25 lb. 7 oz and of the second kind, 45 lbs 4 oz, while at Chittagong, a place accessible by sea, it is respectively 82½ lbs and 102½ lbs per rupee, or 2s. 8½d and 2s 2½d per cwt, and the same feature is observable in some other articles. With respect to the price of meat and fowls, it is seen that bullocks varied in price from 5 rupees, or 10s per head, at Chunar to 7 rupees 10 annas, or 15s 6d at Calcutta, and 20 rupees, or 40s at Allahabad; sheep vary from 5 rupees 2 annas or 10s 3d, at Calcutta, to half a rupee, or 1s, at Benares and the ordinary price would appear to be about 2s 6d for a sheep. Fowls are classed in three sorts, and vary in price from two, three, and four at Lucknow, of the respective sorts, per rupee, to twenty of the first and second sort, at Almorah. In the return for

1846 the prices are somewhat enhanced, but not sufficiently so to render it necessary to go into details

**SALT MONOPOLY**—We object to all monopolies, and to all export duties. When the opium monopoly is abolished in India, we would, however, upon fiscal grounds alone consider an export duty on opium justifiable. The salt monopoly, though an undoubted evil, was formerly far more so than since a great reduction of price was made by the Company, and from the following statement of Colonel Sikes, the oppressive character of this monopoly appears to have been greatly exaggerated—

"*Salt*."—It has been shown that the average price of the best salt was 20 lbs 9 oz. for 2s. varying at different places from 5½ lbs at Calcutta or 8s 11d per cwt (refined for European families) to 49½ lbs at Cuttack or 4s 6¼d per cwt. but it will be recollected that these are the retail prices of a monopolised article. The duty on imported salt into India has been twice reduced within the last three years. On the 18th of October, 1844 it was ordered by the supreme government to be reduced from 3½ rupees (6s 6d) to 3 rupees (6s) per maund of 82½ lbs avoirdupois. On the 31st of March 1847, it was further reduced to 2¼ rupees or 5s 6d per 82½ lbs. At the previous period the government store salt in Bengal was directed to be sold *wholesale* at prices varying according to the reputation of the salt at the ten places of manufacture † from 356 rupees per 100 maunds (8228½ lbs) of Madras salt to 400 rupees for Cuttack salt. On the 31st of March, 1847, the prices were further reduced to 331 rupees and 375 rupees per 100 maunds for the salt of the same places respectively, and the government pledged itself not to alter these prices before the 1st of April, 1849. It is thus seen that the wholesale price of the Madras salt was about 25 lbs per rupee, or 12½ lbs for 1s, or something less than 1d per lb. and that of Cuttack salt about 20½ lbs per rupee. At Calcutta therefore the retail price (5½ lbs) of the best salt was four times that of the wholesale price and generally in the Bengal province, excepting at Cuttack and Chittagong where the market retail price was lower than the government *wholesale* price (strange as it may appear), the profits to the wholesale purchaser must have been very considerable indeed. But in case we look to prices in the North Western Provinces, Bundelcund Malwa and our newly-acquired provinces beyond the Sutlej in the Punjab the anomalous and startling fact presents itself that the retail prices, with few exceptions, are below the *wholesale* prices in Bengal showing that there is a source of supply independent of the government sales. For instance, at sixteen stations from Calcutta to Allahabad (always excepting Cuttack and Chittagong) the average retail price of the best salt is 12½ lbs for 2s, a little more than half the wholesale price of Cuttack salt 20½ lbs, but beyond the limits of Allahabad, at twenty nine stations, the average retail price is 23½ lbs, while the wholesale price at which Cuttack salt was put up by government was only 20½ lbs for 2s. Nagpoor is supplied from the western coast of India and on the 30th of July, 1846, the price of salt was 30½ rupees per kundlee of 611 lbs avoirdupois giving not quite 20 lbs per rupee. Nagpoor, therefore, could not have been the channel of supply. But at Kheir, in the Poona collectorate under the Bombay government the following are the prices of salt in the respective years—

YEARS	Local sales	Indian sales	Total
1840	31	41	26
1841	32	40	64
1842	33	42	8
1843	30	38	20
1844	31	30	22
1845	21	30	46

The average is nearly 35 Indian seers per rupee, or 72 lbs avoirdupois instead of 20½ lbs, as in Bengal, and 20 lbs as at Nagpoor or 23½ lbs, as in the North-Western

See Remarks on Taxation &c hereafter  
† Head-quarters Tumlook, 24 Pergunnahs Chittagong Arracan, Kurra, Cuttack, Balasore, Khurdah Madras

Provinces the western coast no doubt, therefore, supplies Central India and Bundelcund to some extent but the North-Western Provinces are probably supplied from the salt beds of the Punjab, or from the salt lakes of Ajmere. It is right here to state that the salt tax in the North-Western Provinces is levied as a customs duty only.

"Very much has been written regarding the pressure of the salt monopoly upon the people of India, and the above facts and prices afford the means of putting the value of the assertion to a practical test, and for fixing the real portion of a man's wages which he is compelled to expend upon salt as a necessary of life. In the first place the so-called monopoly is confined to Bengal, where the average retail price of the best salt is about  $20\frac{1}{2}$  lbs per rupee. Various native authorities concur in stating that a single man consumes one seer of salt (14,400 grains) per month, but that a family average about three-quarters of a seer (10,800 grains). In the goals of the North-Western Provinces a convict is allowed 225 grains per diem, which, for thirty days, is 450 grains less than half a seer, and is 250 grains less than one pound avoirdupois, and it is looked upon as ample. But taking three-quarters of a seer per head (10,800 grains), or even one seer (14,400 grains), the rupees worth of the best salt, which the poor do not consume, would last a man, in the first case,  $13\frac{3}{4}$  months, and in the second case 10 months, and as the average wages of an agricultural labourer are three rupees, or 6s per month, and all other classes have higher wages, it results that one-third of a month's wages supplies a man's salt for  $13\frac{3}{4}$  months, at 10,800 grains, or three-quarters of a seer per month, or at the allowance of one seer per month, two shillings worth of salt lasts him ten months, three-quarters of a seer per month costing him about the fourth of a farthing per diem, and one seer costing a scarcely appreciable fraction more. And yet it has been deliberately asserted in print, for selfish purposes, that a year's salt for a labourer costs him three months' wages. But if the Kheir average price of 35 seers per rupee be used, then 35 seers will last a man 35 months, at a cost of  $\frac{1}{75}$ ths of a penny per month, or 0.025 of a penny per diem, and a glance at the Tables VII and VIII will show that two shillings' worth of salt at many places in the North-Western Provinces will last a man from eight to twenty-three months. At Calcutta the retail price of  $2\frac{1}{2}$  lbs is 2s (although it is shown the government sell  $20\frac{1}{2}$  lbs to 25 lbs for 2s), no doubt presses severely upon a poor man, for a third of a month's wages, or 2s, would supply him with only three months' salt, instead of thirty-five, eighteen, or ten months' salt, as elsewhere but this must be the price of refined salt which of course is not used by the poor. This severe pressure, however, exists only in Calcutta, and is to be attributed to the cupidity of the retailers, and not to the government. In Bombay, from an invoice of 200 tons of salt in July, 1845, of Messrs Nicol and Co, sent to Calcutta the cost to them, including excise duty of 1s 6d per 82 $\frac{1}{2}$  lbs, and carriage from Tannah to Bombay by water, was 2s 5 $\frac{1}{2}$ d per cwt, there were, therefore, 45 seers or 92 $\frac{1}{2}$  lbs for 2s, and a third of a labourer's monthly wages at 3 rupees per mensem, would supply him with salt for forty-five months. The wholesale price of salt in London varied in the years 1844 and 1815 from 37s (coarse) to 45s (fine) per ton, and in 1846 and 1847 from 35s (coarse) to 47s (fine) per ton.



"The following table exhibits the final results of prices in contrast —

PLACES	Wheat, per Quarter	Rice per Cwt.	Gram per Quarter	Flour lbs per Ruple	Peas or Dhali per Quarter	Jowar per Quarter	Bajra per Quarter	Sugar per Cwt.	Salt, per Cwt											
	s d.	s d.	s d.		s d.	s d.	s d.	s d.	s d.											
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Coimbat averages of one year of scarcity	17 11	4 3	28 0			13 5	16 11													
Hushungaba averages of sixteen years	10 8½	4 1½	- 11																	
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"I annex Messrs Nicol's invoice of salt from Bombay, and for record and comparison add the contract prices of the supplies to the East India Company's Military College at Addiscombe \*

"It now remains to consider whether the prices given of the cerealia in India offer sufficient inducement to the speculator, in seasons of scarcity in Europe, to look to India for supplies. *Prima facie* the case is conclusive from the comparatively remarkable cheapness of grain and pulse in India, but the element of the cost of transit from India to England must now be taken into consideration and this will be best done by putting it into juxtaposition with the cost of the freight of wheat from the most distant sources of supply in Europe, namely Odessa and Alexandria. The following statement is from the information of a gentleman in Mark Lane, of great experience in the corn trade. Another consideration also is, the loss occasioned by the destruction of the grain by weevils in transit.

"The price of fine Polish Odessa red wheat at Odessa, free on board, in ordinary years, is from 25s to 32s per quarter. This corn weighs from 60½ lbs to 61½ lbs per bushel. Freights from Odessa to London are from 6s 6d to 8s 6d or 9s per quarter. The ordinary duration of the voyage is two months. This year (1847) some vessels have been four months on the passage and some only six weeks.

"At Alexandria the price in ordinary years is from 18s to 25s per quarter free on board, weight 56 lbs to 59 lbs per bushel freight 6s to 7s per quarter. The duration of the voyage much the same as from Odessa, the principal detention being at the Gut of Gibraltar.

\* Since the above was written Lieut Burke of the Bombay Engineers in an official report to government describes a superficial deposit of good salt upon the Dutch frontier of Sumde near Lupect Bunder capable of supplying one hundred millions of people for above 1600 years at 20 lbs per head per annum. This salt could be delivered at Bombay at 5s per ton while Cheshire salt put on board ship at Liverpool is 12s per ton.

“The prices would, doubtless, be brought down by plentiful harvests at home, and free access to all the world for wheat

“It is believed that the weevil is bred within the grains of the wheat, the egg being deposited at some period during the formation of the grain, for the insect has often been found in the middle of grains which were on the outside perfectly sound. After the insect has eaten its way out of its native grain, no doubt it proceeds to attack others. It has also been seen in flour brought from India in a metal canister hermetically sealed.

“That the length of the voyage does not produce the weevil is proved by the fact that cargoes of wheat come from Australia perfectly free from it and in the finest possible condition although often *nine* months on board, and the wheats of Australia fetch the very highest prices in the English markets.

“The wheats of Poland brought from Odesa are rarely infected with weevil, so also those from the ports of the Baltic. When it occurs in these it is to be traced to mismanagement, such as storing the grain in foul warehouses, &c.

“But the wheats from Turkey, Egypt, the Italian States, and Spain, are almost invariably attacked with weevils. In some cases of great neglect the insect has eaten half the weight of the grain.

“Wheats from the Baltic, when they arrive ‘out of condition,’ are hot and moist. The heat seems to arise from a vegetable fermentation occasioned by the damp state in which the grain must have been gathered and put into bulk. But those from the Mediterranean when hot (and they are very hot) are dry. The heat is dissipated at once by the mere act of separation in the process of unloading, but it immediately returns on the grain lying again in bulk. It apparently arises from the quantity of animal life in the grain.

“When grain is received in the last-mentioned state it is put into conical heaps. The weevil always seeks the top, in due time, therefore, the top of each cone is taken off, and with it the greater part of the weevil. This process, and the previous ravages of the insect of course destroy much valuable grain.

“From comparisons of the wheats grown in different countries it is inferred that the weevil is produced most plentifully, if not exclusively, in wheats grown in a climate which is unduly dry.

“Supposing the above view of the origin of the weevil to be accurate, it is not believed that the substitution of threshing machines for the bullocks and earthen floors used in India would remedy this evil, although they would improve the article in other respects, and it is also thought that insect life, while in the egg, will endure without destruction any heat to which the grain can be safely subjected.

“American wheats, of which till this year, 1847, little has been imported, do not stand high in the estimation of English millers, they do not like the soil on which they are grown. Little has been done with them in ordinary years to supply trustworthy facts as to costs and freights.

“Indian wheats, if they can be brought over in good condition, are likely to be much approved.

“Such are the opinions of a trustworthy and experienced person and if the lowest price stated of Odesa wheat be taken, 25s per quarter, and the lowest rate of freight 6s 6d per quarter, then a ton of wheat would be introduced into England at a cost of 116s 8d for the cost price of the wheat, and 30s 3d for freight making a total cost per ton of 146s 11d. Freights from India vary excessively, but assuming a very high freight of 5l or 100s per ton, and taking the average of all the averages of the price of wheat in the preceding tables, namely, 13s 1d per quarter, or 51s per ton then the cost of a ton of Indian wheat landed in England would be 161s, and in ordinary seasons it would not be worth a speculator's while to import it from India. But with respect to other grains, some of which are three or four times cheaper than wheat, the same objection would not exist, and they might be imported to a great profit, even in ordinary seasons, could a taste for them be induced. But in seasons of scarcity like that of the past year, when the price of wheat has varied in the London market from 57s per quar-

ter (266s per ton, in November, 1846), to 102s per quarter (476s per ton, on January, 1st, 1817,) then India may be looked to with confidence for a supply, rendering large profits to the importer India having the advantage also of ripening its grain crops in January and February, five months before those of Europe are available. It may be objected that a larger demand upon India would greatly raise prices, and probably permanently so but my reply to this objection is that about two-fifths of the whole fertile soil of India are at present untilled, and would necessarily be brought into cultivation to meet an increased demand for cereal supplies

TABLE I—Annual Average of Local Seers of Grain per Rupee of Two Shillings at Seven Localities in the Collectorates of the Deccan, from the Year 1827 to 1845, both inclusive

LOCALITIES	1827	1828	1829	1830	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845
	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>WHEAT</b>																			
Sewmere	22	32	27	25	28	31 1/2	28	28	32	33	44	34 1/2	36	26 1/2	33	24 1/2	32	26	13
Brahmunwaree	23	34	30	30	26	13	23 1/2	29	35	32	36	26 1/2	21	23	23	31	33	24 1/2	12
Paubol	30	32	23	23	23	16 1/2	10 1/2	37	31 1/2	25	23	26	27	20	20	24	24	20	13 1/2
Poorandhur	23	27 1/2	26 1/2	24	28	22 1/2	24 1/2	25	27	31 1/2	31	30 1/2	25	25	25	25	22	24	16
Indapoor	21	30	22 1/2	25	24	17	16	24	23	30	34	21	21	23	20	25	24	25	14 1/2
Kulus	24	4 1/2	30	30	28	24	17	30	28	36	42	36	23	28	21	18	25	25	12
Mawul					3 1/2	10 1/2	18 1/2	28	26	30	26	30	18	20	24	23	30	20	19
<b>RICE</b>																			
Sewmere																			
Brahmunwaree																			
Paubol	19	21	17	23	10	12	13	22	22	16	16	15	17	14	11	16	16	18	12
Poorandhur																			
Indapoor	0	10 1/2	10	9 1/2	9 1/2	0	10	12	10 1/2	11 1/2	9 1/2	9 1/2	10	13	13	12	12	12	9 1/2
Kulus	11	10	9	10	10	10	11	13	11	15	14	13	18	13	13	14	12	14	15
Mawul					24	22	24	17 1/2	24	28	18	24	23	13 1/2	19	21	21	24	19
<b>GRAM</b>																			
Sewmere	29	40	3	20	26	32	24	30	32	40	42	34 1/2	18	28 1/2	34	36	37	25	19
Brahmunwaree	28 1/2	35	28	8	24 1/2	17	23	25 1/2	28	34	36	25 1/2	20	24	35	31	36 1/2	24 1/2	12
Paubol	24	36	29	18 1/2	19	15 1/2	14	16	20	30	26	33	20	20	24	24	24	20	13
Poorandhur	23	27	2 1/2	2	24	20 1/2	21 1/2	19 1/2	23 1/2	22 1/2	21	10 1/2	24 1/2	20	32	32	26	13 1/2	12 1/2
Indapoor	31	22	29	25	13	13 1/2	18	20	19	42	31	18	19	17	18	25	20	24	12
Kulus	13	18	14	16	15	18	19	18	15	16	20	22	24	24	30	21	22	20	12
Mawul					22	18	19 1/2	18	23	26	23	25	10	17	24	22	21	23	12
<b>RAJRA</b>																			
Sewmere	27 1/2	42	32	31 1/2	33	28	36	32	29	34	40	31 1/2	23	39	32	30	3	26	16
Brahmunwaree	26	36	40 1/2	37	31	0 1/2	31 1/2	34	31 1/2	31	40	25	31	7 1/2	31 1/2	36	36	25 1/2	17
Paubol	33	40	44	44	46	18	22	40	37	32	38	34	22	33	32	37	37	34	16
Poorandhur	32	37 1/2	34	26	30	7 1/2	34 1/2	30 1/2	30	32	31 1/2	27 1/2	31 1/2	33	29 1/2	41	40	28 1/2	17
Indapoor	30	54	42	38	32	18	38	43	40	44	58	39	8	46	44	54	39	25	14 1/2
Kulus	32	64	40	30	44	25	35	36	36	41	54	51	44	48	48	40	54	29	17
Mawul					31 1/2	27	20	19 1/2	26 1/2	28	28	27	20	20	24 1/2	3	28	34	22
<b>JOHARREE</b>																			
Sewmere	32	44		32	40	36	39	36		32	34	28	36	38	43	44	44	30	18 1/2
Brahmunwaree	30	34	31 1/2	44	38	29 1/2	41 1/2	48	40 1/2	33	54	34	30	30	34	41	48	25 1/2	17 1/2
Paubol	42	18	48	40	44	23	24	44	41	32	36	40	46	26	36	40	44	44	26
Poorandhur	36	40	36	32	34	2	4	38 1/2	34 1/2	32	30	41 1/2	29 1/2	29 1/2	36	35	50	38	2
Indapoor	39	67	40	42	40	21	44	46	46	67	68	42	50	18	6	0	0	39	17
Kulus	36	80	56	60	56	46	5	56	53	56	72	52	47	68	52	56	87	39	20
Mawul				40	32	33	11	30	34	32	37	25	20	32	36	3	37	28	

TABLE II.—Average Prices of Bread Stuffs, Rice, and Gram at Seven Markets in the Collectorates of the Deccan, from the Years 1827 to 1845, both inclusive, together with the Weight Avourdupois for Two Shalugs, and the Price per Quarter English

GRAIN	1827		1828		1829		1830		1831		1832		1833		1834		1835		1836		1837		1838		1839		1840		1841		1842		1843		1844		1845		A. Page's Seers		Avourdupois pois		Price per Quarter						
	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No								
Wheat.	23	4-20	26	1-4	31	1-5	34	3-0	32	2-7	22	4-7	23	2-7	33	4-7	32	2-7	26	5-7	19	24	4-7	25	3-7	31	2-7	22	2-7	23	2-7	23	2-7	23	2-7	23	2-7	23	2-7	23	2-7	23	2-7	23	2-7	23	2-7		
Rice	15	8-6	17	14	1	3	20	1-4	11	3-1	17	16	1-4	20	1-4	21	1-4	18	1-2	18	3-4	18	18	10	1-4	19	3-7	19	1-2	13	2-3	17	17-19	36	13	36	13	36	13	36	13	36	13	36	13	36	13	36	13
Gram	23	36	4-6	32	4-6	28	1-7	23	6-7	23	1	24	1-7	26	5-7	28	3-7	19	4-7	28	4	7	31	3-7	23	2	27	1-7	23	4	7	24	37	1-7	20	1-7	15	20	19-19	60	5	60	5	15	11				
Bajra	34	3-6	35	5-6	43	5-0	42	2	7	41	1-	25	4-7	27	5-7	45	1-7	41	42	1-7	50	3-7	35	1-7	30	2-7	46	41	1-7	45	3-7	47	31	2-7	20	40	7-12	82	10	11	7	7	7	7	7	7	7		
Jowaroe	41	1-6	66	1-2	34	31	1-6	48	6-	32	5	37	4	52	2	42	1-7	50	1-7	60	5-7	46	5-7	45	3-7	51	3-7	53	2-7	61	4-7	52	2-7	33	6-7	23	38	16-19	140	8	140	8	9	6	6	6	6	6	6

NOTE.—The seers are reduced from the local seers in Table I to Indian Seers of 10 400 grains avourdupois each

Extract from a Letter of Colonel Sleeman to J. Chapman, Esq., dated Shasse, July 24th, 1846

"A memorandum of prices of grain &c. is enclosed. The prices of gram in the Saugor district is influenced chiefly by the external demand from Khandesh (S. W.), Nagpore (S.) and Bundelcand (North). In the Nerbudda valley districts of Jabalpoor, Narsingpore and Hoshangabad the price in 1845 varied from 48 seers wheat and gram the rupee (Company's rupee and 80 to the seer) to 65, but in the beginning of 1846 the price of wheat and gram rose to 13 seers only for the rupee in Khandesh from the increased demand from Indore and Khandesh. The harvests have been even better than ordinary and promised to be so when prices rose and had not the crops in Khandesh failed the prices must have fallen from 60 to 100 seers the rupee for gram and from 86 to 78 or 93 wheat. Wheat generally sells about 3 seers the rupee dearer than gram when both are cheap the difference lessens as prices rise generally and sometimes gram sells even dearer than wheat."

TABLE III.—Average Prices of Grain in the Saugor and Nerbudda Territories for Three Years, sold on Company's Rupees, from 1843

DISTRICTS	1843			1844			1845			1846		
	Wheat	Gram	Rice	Wheat	Gram	Rice	Wheat	Gram	Rice	Wheat	Gram	Rice
Saugor	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch	m s ch
Dinnoh	1 29 10 1/2	1 27 7	1 27 7	1 26 7 1/2	1 29 1	1 29 1	1 1 18	1 2 1 1/2	1 2 1 1/2	0 26 4	0 27 8	0 27 8
Jabalpoor	1 23 0	1 28 2	1 27 10	1 27 10	1 30 0 1/2	1 27 10	1 0 1 1/2	1 0 1 1/2	1 0 7 1/2	0 34 0	0 30 0	0 30 0
Seonee	1 34 10 1/2	1 29 12	0 26 7 1/2	2 0 9 1/2	2 29 1 1/2	0 24 9	1 13 1 1/2	1 25 1 1/2	0 21 1 1/2	0 36 7	1 3 5	0 21 4
Narsingpore	1 24 9 1/2	1 32 1 1/2	0 28 5	1 25 1 1/2	1 26 4	0 29 1 1/2	1 0 26 1 1/2	0 26 1 1/2	0 23 8 1/2	0 32 1 1/2	0 32 1 1/2	0 19 1 1/2
Hoshangabad	1 26 9 1/2	1 14 6 1/2	0 25 1 1/2	2 7 1	0 11 1 1/2	0 24 1 1/2	1 0 7 1/2	1 11 1 1/2	0 29 4	0 31 10	1 3 1 1/2	0 16 0
Bastool	2 1 1 1/2	1 12 1 1/2	0 24 1 1/2	1 27 8 1/2	1 0 8	0 23 4	0 26 1 1/2	0 27 1 1/2	0 17 1 1/2	0 2 0	0 21 0	0 14 0

This was in the beginning of the year. Prices rose afterwards 60 per cent from scarcity.

NOTE.—The pound is 1 40 seers of 80 Company's rupees each equal to 82 2 7/16 lbs avourdupois.  
The rupee used in Saugor and Dinoh is the Company's that current in all the other districts is the Nagpore rupee but the rates here given are for the Company's rupee in all the districts.

(Signed)

W H SLEEMAN

TABLE III \*—Reduced Average Statement of Prices of Grain in the Saugor and Nerbudda Territories, beginning 1843 From a Table, No III by Colonel Sleeman, expressed in Mauuds, Seers, and Chittacks, per Company's Rupee, the Values given here in Pence per Ton

NAMES OF DISTRICTS	Price per Quarter of Wheat in 1843	1843			1844			1845			1846		
		Wheat	Gram.	Rice	Wheat	Gram	Rice	Wheat	Gram	Rice	Wheat	Gram	Rice
	s d	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton	pence per ton
Saugor	6 6	354 378	371 373	370 789	370 789	403 542	397 143	594 998	594 998	594 998	594 998	594 998	594 998
Dumoh	6 8	395 178	390 509	370 333	370 333	335 410	613 646	581 126	652 268	652 268	652 268	652 268	652 268
Jubulpoor	5 10	334 608	358 739	346 172	2 353	328 065	1010 031	463 808	374 047	1151 137	687 326	578 227	1178 269
Seon o	5 11	335 815	330 346	707 690	818 423	365 831	782 533	693 371	098 803	1065 013	30 259	763 259	1231 265
Nure Nipore	7 5	360 299	48 177	1001 77	391 699	64 857	1040 109	300 805	483 221	833 585	791 012	848 019	1 29 431
Hoshungabad	6 8	2 46 518	3 5 001	1050 237	3 5 253	324 600	1237 54	55 705	5 771	1559 190	101 033	1688 863	1 88 869
Baitool	5 6	308 843	415 021	872 049	323 024	360 358	1057 839	681 482	600 624	1413 441	1192 531	1192 590	1788 863
Average price per ton in pence	6 4	353 000	37 000	916 000	323 000	323 000	1031 000	594 000	556 000	1208 000			

\* This was in the beginning of the year Prices rose afterwards 80 per cent from scarcity

TABLE III \*\*—Statement (in Pence per Ton) of the Average Price of Wheat in the Districts of the Saugor and Nerbudda Territories, from the Year 1831 to 1840, A D Reduced from the Statement of the Commissioner, dated 6th of December 1841

NAMES OF DISTRICTS	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence	Rate per Ton in Pence
	30th of May 1831	1st of May 1832	30th of May 1832	30th of May 1834	20th of May 1835	30th of May 1836	30th of May 1837	20th of May 1838	30th of May 1839	30th of May 1840
Saugor	38 433	1136 383	1096 812	yr of famine	411 743	716 196	631 041	1022 222	908 673	781 875
Dumoh	684 807	119 480	80 538	24 584	770 371	676 377	6 637	1801 717	84 052	945 073
Jubulpoor	784 638	1473 201	663 117	1192 592	798 992	659 064	715 595	634 815	715 595	784 638
Seonee	360 722	637 97	919 068	1053 123	739 423	714 280	602 800	657 982	431 089	543 928
Hoshungabad	912 81	263 247	1340 170	1846 243	1046 223	354 234	603 489	676 8 8	713 050	681 481
Baitool	451 760	443 684	yr of famine	581 35	874 848	441 313	581 684	409 168	604 350	574 908
Pence per ton average	721 6	964 5	935 9	1010 000	828 000	627 060	618 3	706 5	727 000	719 080

NOTE—The average of the whole was 793 pence per ton or 10s. 6d per quarter

TABLE IV—Price Current of Wheat, Gram (Chenna), and Rice, as by the Norkh Namehs kept in the Office of the Principal Assistant Agent of the Governor General—*Hoshungabad* \*

YEARS	NOVEMBER OR SOWING TIME			JUNE, OR STORING TIME AFTER HARVEST		
	Pence per Ton			Pence per Ton		
	Wheat	Gram	Rice	Wheat	Gram	Rice.
1822—23	561 150	612 415	1144 973	497 314	395 251	1194 733
1824	429 353	298 084	696 530	336 024	272 13	546 283
1825	441 810	317 256	152 668	392 083	217 33	1208 958
1826	289 079	129 125	39 219	264 463	156 614	846 312
1827	311 184	325 017	908 510	466 700	275 588	1040 712
1828	446 022	454 233	831 302	406 48	311 134	954 143
1829	405 611	331 876	773 648	541 572	336 094	90 270
1830	705 376	491 591	362 449	294 098	245 410	1050 098
1831	509 467	317 556	77 683	483 149	431 907	820 555
1832	414 842	375 472	759 100	1063 003	574 406	1699 815
1812†	1071 327	575 567	1386 894	1294 316	626 539	1406 508
1834‡	1233 800	859 690	1530 074	76 944	588 042	1711 612
1835	776 362	579 277	1037 854	508 510	650 491	1213 481
1836	728 572	538 780	902 598	389 481	369 112	937 354
1837	647 955	449 585	964 313	535 738	866 003	945 104
1838	583 304	460 478	1077 360	573 450	443 453	1140 933
Average	598 800	443 000	686 000			

NOTE.—The fluctuations are entirely owing to good and bad harvests.

\* Reduced from the original table sent to me by Colonel Ouseley at the rate of 444 34 lbs avoirdupois per Mance and 10½ pence per Nagpore rupee—J CHAPMAN  
† No rain in 1833  
‡ Famine prices

MEMORANDUM.—The hire of a loaded cart, carrying 6 or 7 maunds (375 lbs avoirdupois) from Bombay to Nagpore, or from Nagpore to Bombay is 50 rupees 5¢ (or 4½ 2d Nagpore currency) if it will travel 6 or 7 days (18 to 14 miles) per diem and arrives in 40 days. A return hackery (cart) going back empty will make the journey in 28 or 20 days. The hire of a loaded bullock carrying 1 maund (37½ lbs) is 7 rupees (or 14 shillings, or 1½ 6d.) for going and returning from Nagpore to Bombay it will travel 6 coss (10 miles) per diem.

TABLE V—List of Average Rates of Grain, &c., at Nagpore, during the Years 1843, 1844, and 1845

GRAIN	1843	1844	1845	REMARKS	
	Rate per Rupee	Rate per Rupee	Rate per Rupee		
Wheat	35	46	24	30 rupees weight a ster and 200 seers make one khandee, coucrae are 160 pail lbs, and 1½ seers make one pallie	
Chenna (1 cer aristozum)	40	84	—		
Jowarce / Holcus sorghum)	67½	78	43		
Moong, (1 lascolus monog)	40	47½	28½		
Musoor (F. in kus)	20	20	31		
B (cassia / inum sativum)	40	42½	31		
Bayra (Panicum spensatum)	40	36½	33		
RICE OF DIFFERENT SORTS					
Bamkali 4th sort	35	28	23		
3 or 2d sort	30	24	21½		
Clutrice 2d sort	28	21	17		
Y ilce Kumode 1st sort	20	18	17½		
Good rice for gentlemen.	16	15	13		
DHALI, OF DIFFERENT SORTS					
Two dhall split peas (Cytisus cajan)	35	29	23		
Moong ditto (split)	40	35	25		
Musoor	40	30	24		
Chenna	20	26	20		

NOTE.—The fluctuation in the prices of grain is caused by the variable fall of rain in the month of Nagpore, 30th July 1846.

(Signed)

ALEX SPIERA, Resident

TABLE VI — Statement of the Prices of the principal Edible Grains shown in the Number of Indian Seers per the Rupee in the Bazaars of Goujrat and in Tanna, Candeish, and Colaba, for the Period ending 15th August 1846 The Period being one in which the Monsoon failed and Scarcity resulted

ZILLA H	RICE			WHEAT			JOWAREE			BAJRA			GRAM			REMARKS															
	Average	Lowest	Highest	Average	Lowest	Highest	Average	Lowest	Highest	Average	Lowest	Highest	Average	Lowest	Highest																
Ahmedabad	55	57	30	60	31	1	37	7	35	70	24	0	34	78	46	10	36	88	27	39	35	70	21	1	16	72	25	50	12	0	Rice the average of 11 markets The rest the average of 14 markets The whole of the second quality used for general consumption Rice the average of 6 markets Gram the average of 7 markets The rest the average of 8 markets Sootural rice and Wanjia wheat are given in this Zillah
Khaira	16	63	20	0	14	40	22	53	28	0	21	0	33	50	44	0	35	0	30	00	23	40	9	0	16	46	30	0	15	0	The average of 8 markets
Brooch	27	16	34	40	21	40	12	68	14	20	11	20	27	0	20	0	34	0	23	4	26	0	21	0	11	72	13	20	11	0	The average of 8 markets Bajra, the average of 8 markets Jowaree the average of 9 markets Gram the average of 11 markets
Surat	31	18	34	0	16	40	13	7	15	66	11	40	25	76	29	60	28	0	20	0	21	60	14	16	13	25	15	20	11	0	The rest the average of 12 markets Wadea rice is given also the second quality of grain Jowaree the average of 1 market
Tanna	16	65	20	72	17	20	12	51	16	16	11	20	17	34	17	44	17	44	17	10	18	0	13	16	12	31	14	35	11	20	The rest the average of 5 markets Coarse rice is given in this Zillah The average of 17 markets
Candeish	12	58	20	0	10	0	18	75	23	0	14	36	29	33	36	54	22	0	25	14	38	0	20	54	16	53	30	0	18	00	The whole of the second quality used for general consumption
Colaba	19	36	30	72	18	41	11	47	12	79	10	15	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	The average of 3 markets	

Revenue Commissioners Office Poona,  
21A September 1846

The seer is 14 400 grains avoirdupois and the tola, T is of 180 grains

TABLE VII.—Price Current of Grain, Provisions, &amp;c., at the several Stations of the Bengal Army, for the Month of July, 1845

STATIONS	Sicca weight per Seer	RICE.						GRAM.			SALT.								
		Wheat.		First Sort.		Third Sort.		First Sort.		Second Sort.	Barley.		Dhal.		First Sort.		Second Sort.		
		Per Rupee		Per Rupee		Per Rupee		Per Rupee		Per Rupee	Per Rupee		Per Rupee		Per Rupee		Per Rupee		
		m	s	c.	m	s	c.	m	s	c.	m	s	c.	m	s	c.	m	s	c.
Presidency	80				0 10 0				1 4 0				0 30 7 1/2						
Cuttack	80																	0 2 13 0	8 10 1/2
Berhampore.	80	0 30 0			0 16 0	0 37 8			0 38 0	0 33 0	0 38 8	0 28 0					0 54 0	0 7 11 0	0 8 0
Dacca	80	0 29 2			0 20 0	0 35 0			0 36 0	0 32 0		0 23 8					0 8 0	0 8 0	0 8 8
Chittagong	80	0 35 0			0 40 0	1 10 0			0 28 0	0 30 0	0 36 0					0 15 0	0 6 8	0 6 8	0 6 8
Assam	80					1 0 0													
Chirrapoonjia	80				0 30 0			0 15 0											
Dinapore	80	0 29 14 1/2			0 13 0	1 37 13			0 35 6			0 38 12					0 7 8	0 7 12	0 7 12
Hazareebaugh	80	0 22 0			0 15 0	0 22 0			0 20 0							0 19 10			0 4 0
Doroodah	80	0 17 6			0 16 0	0 30 0			0 17 0							0 18 0			0 6 14
Benares	80	0 26 0			0 12 8	0 28 0			0 38 0	0 33 0	0 33 0	0 18 0							0 6 0
Secrole	80	0 24 0			0 11 0	0 20 0			0 29 0	0 30 0	0 30 0	0 17 0							0 6 4
Mirzapore	80	0 27 0			0 15 8	0 23 0			0 30 8	0 32 0	0 34 0	0 19 0							0 6 12
Chunar	80	0 26 0			0 13 0	0 24 14			0 22 8	0 33 0	0 32 0	0 18 0							0 5 0
Buxar	80	0 24 8			0 12 0	0 17 0			0 28 0			0 31 0							0 4 32
Goruckpore	82	0 29 4			0 16 4	0 24 6			0 30 0	1 0 10	1 2 4	0 31 8							0 7 5
Ghazepore	82	0 25 0			0 13 6			0 30 0	0 32 8	0 32 8	0 34 8	0 16 4							0 9 1
Juanpore	80	0 17 8			0 9 0	0 14 0			0 21 0	0 22 0	0 24 0	0 14 0							0 4 0
Allahabad	107	0 28 0			0 11 0	0 18 0			0 20 0	0 27 0	0 27 0	0 16 0							0 6 0
Sultaunpore	80	0 23 8			0 13 2	0 18 4			0 26 2			0 28 0							0 5 8
Cawnpore	80	0 28 0			0 7 0	0 20 8			0 31 8	0 32 6	1 0 10	0 23 1							0 9 8
Lucknow	80	0 30 13			0 10 10	0 17 0			0 28 12			0 35 2							0 6 0
Fatey Ghaur	80	0 26 0			0 10 8	0 16 12			0 28 0	0 29 0	0 37 1	0 17 11							0 8 4
Seetapore	80	0 21 15			0 9 0	0 18 0			0 30 5	0 34 6	1 0 0	0 20 0							0 5 0
Muzet	80	0 32 1 1/2			0 10 0	0 12 8			0 20 14	0 34 14	1 8 0	0 24 0							0 10 8
Delhie	80	0 29 4			0 6 0	0 16 0			0 21 2	0 32 1	1 2 1	0 21 0							0 10 8
Laudour	86	0 25 0			0 9 0	0 14 0			0 23 0	0 25 0	0 34 0	0 21 0							0 5 8
Barrilly	80	0 26 8			0 9 10			0 37 15	0 39 6	1 16 4	0 24 0							0 8 7	
Moordabad	80							0 28 9	0 29 3										0 12 0
Shajchanpore	106	0 34 1			0 10 4			0 38 4	1 0 1 1/2										0 9 3
Hansee	84	0 34 14			0 8 0	0 12 0			0 27 0	0 28 9	0 33 13	0 23 3							0 15 0
Almorah	80	0 22 0			0 10 0	0 0 0			0 15 0			0 18 0							0 5 8
Loteo Ghaut	80	0 22 1			0 14 8							0 19 1							0 5 8
Agra	80	0 20 8			0 9 0	0 11 0			0 21 6	0 32 0	1 1 5	0 24 0							0 5 0
Matta	80	0 23 0			0 8 0	0 11 0			0 23 1	0 36 1	1 4 0	0 27 8							0 10 0
Ally Ghur	80	0 16 12			0 8 0	0 22 0			0 33 0	0 33 6		0 29 10							0 9 4
Mynporee	80	0 29 4			0 9 0	0 18 5			0 31 13	0 35 4	1 3 0	0 19 8							0 8 3
Brawah	80	0 27 1 1/2			0 8 0	0 17 0			0 30 4		0 38 6	0 23 0							0 8 0
Unnallah	80	0 26 6			0 7 0	0 10 0			0 27 1 1/2	0 24 1 1/2	0 32 13	0 18 0							0 11 5
Hissar	80	0 24 0			0 19 0			0 38 1			0 8 8	0 24 0							0 16 0
Saugor	80	1 0 0			0 10 6	0 18 6			1 0 0	1 2 8	0 28 0	0 27 0							0 30 8
Jubbulpore	80	0 28 1			0 12 11	0 19 1			1 4 1 1/2			0 31 0							0 27 0
Hoshongabad	80	1 1 10			0 10 2	0 18 4			1 4 6			0 22 8							0 15 12
Nowgung	80	0 29 0			0 12 0	0 16 0			0 33 0		1 1 0	0 23 0							0 14 4
Bandah	80	0 28 0			0 9 0	0 16 0			0 36 16	0 37 7	0 31 0	0 20 0							0 12 0
Nagadu	80	0 28 3			0 10 14	0 23 8			0 36 0			0 23 0							0 20 0
Hoshongabad	84	0 29 8			0 7 0	0 12 0			0 33 12	0 34 12	0 38 5	0 17 8							1 0 0
Noemuch	80	0 30 15			0 8 0	0 10 0			0 20 13	0 21 13	0 23 0	0 14 1							0 23 0
Ferozopore	80	0 23 0			0 8 0	0 12 0			0 37 1	0 34 0	1 0 30	0 11 0							0 16 8
Loodianah	80	0 26 0			0 11 0	0 13 0			0 27 0	0 35 0	0 37 7	0 20 4							0 10 15
Bukkur	80																		
Head Quarters Camp	80																		
Gwalior	80	0 25 0			0 9 3	0 13 7			0 25 14		0 30 14	0 28 15							0 16 8
Average					27 1/2			32		31			19 38-45						9-6

Note.—An Indian mowda is 40 seers, each seer 14-400 grains avoirdupois. A maund therefore weighs 82 2-7ths lbs. a seer 2-0-7 lbs. each seer of sixteen chetanks of 500 grains each.

Port William Military Board Office,  
1st of August 1845

W MACLEAN Secretary



TABLE VII—Price Current of Grain, Provisions, &c, at the several Stations of the Bengal Army for the Month of July 1845—(continued)

STATIONS	GHEE		BRFAD LOAVES		BFSF GRANS FFD		FOWLS			Milk	Oil Mustard	Sugar Candy	Flour	Bianca tr m Calcutta in units	Remarks
	Cows	Hoffloors	First Sort	Second Sort	Sheep	Bullocks	First Sort	Second Sort	Third Sort						
	Per Rupee	Per Rupee	Per Rupee	Each	Each	Per Rupee	Per Rupee	Per Rupee							
Presidency	m s c m s c	no	no	no	no	no	no	no	no	no	no	no	no	no	
Cuttack	0 2 0 2 6	10	18												40 S W
Berampore	0 1 0 2 2	10	18												157 N W
Dacca	0 2 0 2 1 4														742 N W
Chittagong	0 2 1 1 8														483 N W
Azam	0 2 0														6 N W
Chirapunjee	0 2 0														37 N W
Dinapore	0 3 0 2 4	14	27												110 N W
Minare laugh	0 2 10 2 10														230 N W
Dumrah	0 2 5 2 12	16													428 N W
Barrackpore	0 1 4 0 4 10	14	18	0 8 0											924 N W
Secoo	0 2 10 2 14	12	14	0 12 0 8	8 0										4 N W
Muzapore	0 2 12 0 15	21	29	1 0 0	0 0										443 N W
Chunar	0 2 11 0 14	24		0 14 0											351 N W
Bhat	0 1 14 0 10	8		1 0 0											15 N W
Cuckpore	0 2 3 0 2 11			4 5 6											121 N W
Chuspee	0 2 2			0 8 0											470 N W
Junapor	0 1 10 0 14	16		3 8 0 2 0 0											1 N W
Allahabad	0 1 10 0 14	16		3 8 0 2 0 0											424 N W
Benares	0 1 10 0 14	16		3 8 0 2 0 0											16 N W
Lucknow	0 1 14			18 19											6 N W
Puryschur	0 2 2			18 19											1 N W
Amritsar	0 1 0 2 0 16			1 0 0											6 N W
Meerat	0 1 0 2 13 23	26	1 8 0												1 N W
Dhule	0 2 9 0 2 11														920 N W
Leanfort	0 2 2 0 2 4			16											742 N W
Barrack	0 2 4														42 N W
Mooraabad															55 N W
Mooghatpore															0 N W
Han	0 1 15			10											109 N W
Aimoor	0 2 4 0 3 8	12													81 N W
Lohoo Ghaut	0 3 1														817 N W
Alipore	0 2 4 2 10	22													65 N W
Allypore	0 2 13 0 2 15	9													1 N W
Marpore	0 2			1 8 0											3 N W
Tewah	0 2 8			1 8 0											104 N W
Umalah	0 1 7 15	20													191 N W
Harsar	0 3 0														102 N W
Saugor	0 3 0 3 0 40		1 4 0												90 N W
Jubbulpore	0 3 3			1 0 0											84 N W
Hoshangabad	0 2 1														613 N W
Nowgong	0 2 3 13 14	16													104 N W
Bansal	0 2 6 2 10 12	18	1 0 0												194 N W
Nagode	0 2 9														1160 N W
Nasirabad	0 2 11 2 12 21		1 4 0												117 N W
Neemich	0 2 2 4 14	20													146 N W
Feroz pore	0 2 11 2 13 20														146 N W
Loodia	0 2 4 0 8 6														82 N W
Chakur															
Head quarters Camp															
Chawal	0 2 3														
Average															

NOTE.—An Indian maund is 40 cwt each, or 111 lbs; grains a led up. A maund therefore weighs 8 27ths p under 2 cwt 2 657 parts; each cwt of 16 cwt tanks of 90 lbs use 1

W. M. CLEAN Secretary

TABLE VIII —Price Current of Grain, Provisions, &amp;c at the several Stations of the Bengal Army for the Month of May, 1846

STATIONS	Sicca weight per Beer	RICE			ROOT GRAM		Barley	Dhall	SALT
		Wheat	First Sort	Third Sort	First Sort	Second Sort			
		Per Rupee	Per Rupee	Per Rupee	Per Rupee	Per Rupee			
Presidency	80	m s c	m s c	m s c	m s c	m s c	m s c	m s c	
Cuttack	84	0 10 0	0 10 0	0 35 8	0 29 1 1/2	0 32 0		0 2 13	
Bichampore	80	0 31 0	0 5 0	0 22 0	0 43 8	0 20 0	0 44 5	0 75 0	
Dacca	80 1/2	0 26 8	0 37 8	0 40 0	0 28 8	0 26 12		0 2 0	
Chittagong	80		0 20 0	0 41 0				0 32 0	
Assam	80			0 46 0				0 20 0	
Chirrapoonjia	80		0 30 0	0 45 0				0 6 0	
Diaapore	80	0 22 10 1/2	0 13 0	0 23 5	0 13 4	0 14 0	0 48 3 1/2	0 4 0	
Dorondah	80	0 26 0	0 18 0	0 21 0	0 26 0	0 28 0		0 2 0	
Benares	80	0 25 8	0 13 0	0 21 0	0 26 6	0 20 8	0 33 0	0 2 0	
Secraie	80	0 21 5 1/2	0 10 1/2	0 22 5	0 27 12	0 29 5	0 20 0	0 7 0	
Afraspore	80	0 26 0	0 15 0	0 42 0	0 30 0	0 31 0	0 22 0	0 2 1/2	
Chunar	80	0 24 0	0 13 0	0 20 2	0 24 0	0 25 0	0 31 0	0 5 8	
Buxar	80	0 5 0	0 12 0	0 16 0	0 21 0	0 26 0	0 32 0	0 4 13	
Chazepore	82	0 23 12	0 12 8	0 18 0	0 20 0	0 21 8		0 20 0	
Coruckpore	84	0 12 8	0 13 10	0 26 0	0 34 0	0 35 12	0 47 2	0 30 0	
Jaunpore	96	0 19 0	0 9 0	0 13 0	0 19 0	0 20 0	0 26 0	0 17 0	
Allahabad	106	0 21 8	0 10 0	0 19 0	0 20 0	0 20 4	0 30 0	0 18 0	
Saltanpore	80	0 28 *	0 15 0	0 17 13	0 31 4	0 31 0	0 29 0	0 2 8	
Cawnpore	80	0 26 4	0 7 0	0 16 0	0 44 0	0 35 15	0 35 11	0 24 7	
Lucknow	80	0 22 0	0 8 8	0 17 0	0 23 12	0 24 0	0 20 10	0 18 1 1/2	
Fatey Ghur	80	0 24 11	0 16 4	0 12 0	0 33 7	0 34 7	0 28 0	0 21 0	
Seetapore	80	0 25 11	0 7 0	0 19 0	0 49 0	0 31 4	0 18 11	0 0 0	
Meerut	80	0 28 0	0 8 8	0 13 0	0 49 0	0 30 8	0 37 0	0 24 8	
Delhie	80	0 28 0	0 7 0	0 13 0	0 21 7	0 22 2	0 37 12	0 10 8	
Lahour	80	0 28 0	0 8 8	0 13 0	0 17 8	0 18 0	0 22 0	0 18 0	
Bareilly	80	0 25 8	0 9 10	0 13 3	0 29 4	0 30 4	0 38 15	0 22 13	
Mooredabad	80				0 29 5	0 30 0			
Sahampore	106	0 26 0			0 34 0	0 36 0			
Hai see	84								
Almora	80	0 21 0	0 11 0	0 10 0	0 16 0		0 24 0	0 12 0	
Lobon Ghaut	80	0 25 0	0 13 8				0 30 0	0 17 0	
Agra	80	0 28 12	0 9 0	0 11 0	0 24 13	0 25 13	0 30 11	0 29 12	
Muttra	80	0 31 0	0 8 0	0 12 0	0 38 7	0 41 0 1/2	0 44 0	0 26 4	
Ally Ghur	80	0 33 8	0 7 0	0 15 2	0 24 0	0 24 8	0 42 0	0 7 0	
Myspooree	80	0 30 0 1/2	0 11 8	0 10 11	0 31 11	0 37 0	0 43 18	0 1 0	
Etawah	80	0 36 9	0 8 0	0 13 1	0 43 4	0 39 0	0 39 0	0 23 0	
Gwalior	80	0 29 0	0 7 11	0 14 8	0 29 0	0 29 0	0 37 8	0 17 0	
Unnaboh	80	0 22 10	0 7 0	0 10 0	0 25 5	0 26 6	0 26 0	0 17 11	
Bissar	80	0 22 11	0 19 0		0 31 8	0 31 0	0 38 0	0 18 0	
Saugor	80	0 27 5	0 10 0	0 14 0	0 36 0	0 27 0	0 28 4	0 19 0	
Heal aghabad	80	0 12 0	0 10 0	0 15 8	0 30 8	0 30 0	0 39 0	0 14 0	
Nowang	88	0 22 4	0 15 2	0 17 0	0 31 3		0 31 0	0 23 13	
Nagode	80	0 28 0 1/2	0 10 14	0 20 1 1/2	0 27 0	0 3 6 1/2		0 13 13	
Jubbulpore	80	0 29 4	0 12 0	0 14 0	0 33 0			0 18 13	
Rhow	80	0 19 4	0 10 0	0 14 0	0 15 1 1/2	0 16 10	0 18 0	0 11 13	
Nussersahad	84	0 19 8	0 7 0	0 10 0	0 22 10	0 23 10	0 23 0	0 14 0	
Neemuch	80	0 23 13	0 5 0	0 8 0	0 11 11	0 11 0	0 19 0	0 20 0	
Loedianah	80	0 20 0	0 9 0	0 13 0	0 27 5	0 28 0	0 30 5	0 13 0	
Peenaspore	80	0 21 8	0 11 0	0 14 0	0 21 10	0 21 0	0 31 0	0 15 13	
Jalouder	84	0 19 0	0 10 15	0 14 2	0 26 8			0 17 15	
Kurispore	80	0 21 11	0 10 13	0 14 0	0 22 5		0 26 2	0 15 15	
Nokodur	80	0 19 5	0 10 0	0 12 4	0 33 12	0 20 3	0 15 13	0 13 0	
Bombetapore	80	0 21 8	0 11 0	0 14 0	0 21 10		0 3 2	0 16 0	
Kote. Sahatia	80	0 20 0	0 13 8	0 13 0			0 22 0	0 16 0	
Noorpore	80	0 21 0	0 13 0	0 18 0	0 18 0		0 20 0	0 15 0	

NOTE — An Indian mound is 40 seers each Beer 1440 grains, avoidupois. A mound therefore weighs 52 2-8ths pounds a seer 957 pounds, each seer of 16 chitkangs of 500 grains each.

W. MACLEAN Secretary

TABLE VIII—Price Current of Grain, Provisions, &c, at the several Stations of the Bengal Army, for the Month of May, 1846—continued

STATIONS	SALT			GHEE			BREAD LOAVES		BEST CRASS FLD			FOWLS			Milk	Oat Mustard	Sugar (Cheenee)	Flour			
	Second Sort	Cows		Buffaloes	First Sort	Second Sort	Sheep	Bullocks	First Sort	Second Sort	Third Sort	Per Rupee	Per Rupee	Per Rupee					Per Rupee	Per Rupee	Per Rupee
		Per Rupee	Per Rupee																		
Presidency	m s c	m s c	m s c	No	No	r a p	r a p	No	No	m s c	m s c	m s c	m s c	m s c	m s c	m s c	m s c				
Cutta k	0 34 0			14		5 2 0	7 10 0			0 15 0	0 6 0	0 5 12 0	10 10 0								
Berhampore	0 8 8	0 6 0	0 7 8	20	22	0 26 0	0 3 0	3 8	15 0	90 26 0	5 8	0 3 10 0	0 16 0								
Dacca	0 8 8	0 3 0	0 2 0	16	18			8 12	16 0	0 20 0	0 0	0 3 0	0 14 0								
Chittagong	0 8 0	0 2 3	0 2 4							0 20 0	0 4 0	0 3 0	0 20 0								
Asam	0 8 0	0 1 8								0 20 0	0 4 0	0 3 0									
Chirrapoonje	0 8 0	0 1 8								0 16 0	0 3 0	0 3 0	0 7 0								
Dinapore	0 7 0			14	19			4 6	8 0	0 25 0	6 10 0	0 3 8	0 14 0								
Ekraudah		0 2 12	0 3 12							0 25 0	4 0	0 3 8	0 10 0								
Berhampore	0 5 12	0 2 3	0 0 0	10		0 8 0				0 18 0	0 6 4	0 3 10 0	0 12 0								
Secrull	0 7 10	0 1 4	0 2 8	18	20	0 8 0		10 12	16 0	0 15 0	0 6 0	0 3 10 0	0 12 0								
Berhampore	0 9 4	0 2 10	0 1 12	12	14	0 1 0	8 0 0	8 10	12 0	0 24 0	0 7 0	0 5 0	0 11 0								
Chunar	0 8 8	0 2 13	0 2 14	22	35	0 12 0	5 0 0		4 6	0 22 0	0 4 8	0 3 0	0 11 0								
Bhar	0 7 4	0 2 12	0 2 12			0 12 0		3 7 12		0 5 4	0 5 4	0 4 0	0 14 8								
Ghazospore	0 7 12	0 2 8	0 2 12					4 7	0 9 0	0 9 0	0 4 1	0 12 12									
Gorakhpore	0 6 8	0 2 2	0 2 12			0 16 2			8 12	0 13 0	0 4 1	0 10 16 0									
Banapore	0 6 8	0 2 2						8 12	11 0	0 16 0	0 0	0 3 8	0 12 0								
Allahabad	0 8 8	0 1 12	0 2 0	16	18	0 2 7	2 0 0	4 6	6 0	0 22 0	5 12 0	0 2 12	0 12 8								
Sultanpore	0 9 0	0 2 0						4 6	0 20 0	0 7 8	0 4 0	0 18 4									
Gawpore	0 11 8		0 2 12					4 5	7 0	0 18 0	0 7 0	0 3 8	0 18 0								
Lucknow	0 11 8	0 2 4	0 2 4	16	18			4 5	4 0	0 17 0	0 5 0	0 4 3	0 15 8								
Benares	0 11 8	0 2 4	0 2 4	20	23			4 5	0 20 0	0 7 8	0 3 0	0 3 0	0 16 0								
Seetapore	0 8 0		0 2 0	16				4 6	8 0	0 20 0	0 4 10 0	0 3 8	0 14 0								
Mirzapur	0 14 0	0 2 11	0 3 12	16	24	1 8 0		4 6	5 0	0 18 0	0 7 0	0 4 0	0 19 0								
Dellia	0 10 12	0 2 9	0 3 10						10 20	0 6 0	0 0	0 2 14 0	0 1 8								
Lucknow	0 8 8	0 2 0	0 2 4						16 0	0 4 4	0 3 0	0 12 8									
Bareilly	0 10 13	0 2 11	0 2 14	16				4 5	8 0	0 6 0	0 6 2	0 4 3	0 16 13								
Muzaffarpore																					
Benares																					
Allahabad																					
Almorah	0 8 0	0 2 8	0 2 13	12					20 20	0 20 0	0 31 0	0 7 4	0 11 0								
Lohoochaut	0 6 8	0 2 13																			
Agre			0 3 1	23	28				3 8	0 21 0	0 7 15	0 3 12	0 17 0								
Muttra			0 2 14	30	20				4 5	0 20 0	0 8 0	0 9 4	0 16 0								
Allypore	0 15 0	0 2 14	0 2 16	16					4 5	0 22 0	0 8 4	0 3 5	0 22 12								
Mysoree	0 12 13	0 3 0		17					4 6	0 27 0	0 8 0	0 3 0	0 16 0								
Etawah	0 11 0		0 2 14	12		1 8 0			4 5	0 20 0	0 7 12 0	0 2 12 0	0 16 0								
Cawnpore		0 2 10							4 5	0 16 0	0 4 12 0	0 2 3 0	0 12 6								
Subillah	0 13 8		0 2 5	18	13				3 4	0 17 0	0 5 3 0	0 2 12 0	0 13 10								
Hare		0 2 14							0 6	0 30 0	0 5 4	0 3 4	0 14 0								
Seer	0 11 8		0 3 15	28		1 4 0			4 6	0 20 0	0 3 0	0 2 14 0	0 12 0								
Howrah		0 2 4	0 2 8			1 0 0			4 6	0 24 0	0 4 0	0 2 1 0	0 1 0								
Nagpur		0 3 7		18	21	1 7 0	6 4 9	8 10	12 0	0 25 0	0 5 9 0	0 3 0	0 12 0								
Nagpur		0 2 12		12					4 7	0 17 0	0 4 5 0	0 2 11 0	0 13 1								
Jalalpur	0 23 0	0 2 12		20					4 7	0 20 0	0 7 12 0	0 2 12 0	0 16 0								
Mhow	0 23 0	0 1 12	0 2 3	10	14				4 4	0 18 0	0 7 6 0	0 2 4 0	0 10 0								
Howrah	1 5 0	0 1 1		19	19	1 4 0			3 4	0 18 0	0 5 0	0 2 10 0	0 14 0								
Nagpur	0 25 0	0 1 12		13	10				3 4	0 18 0	0 4 0	0 2 2 0	0 9 0								
Lodiana	0 24 0	0 2 4	0 0 0	8	10				2 3	0 18 0	0 5 0	0 2 12 0	0 13 0								
Farrukh	0 17 10	0 2 6	0 2 8	18					2 23	0 11 0	0 5 13 0	0 2 12 0	0 12 0								
Jalalpur		0 3 3	0 2 4							0 15 0	0 7 3 0	0 2 9 0	0 11 0								
Howrah		0 2 4	0 2 4			1 0 0				0 15 0	0 6 0	0 3 4 0	0 10 0								
Howrah		0 2 3				0 12 0			3 5	0 20 0	0 7 0	0 3 0	0 12 10								
Kotla	0 13 0	0 2 0	0 2 2			1 0 0				0 18 0	0 4 0	0 3 0	0 8 0								
Nagpur			0 2 10							0 20 0	0 7 8 0	0 3 4 0	0 8 0								

NOTE—An Indian maund is 40 seers each 14 100 grains avoirdupois. A maund therefore weighs 82 2-7ths pounds; a seer 2 937 pounds each seer of 16 chetaks of 560 grains each.

W. MULLAN Secretary

TABLE IX — Contract Prices of Supplies to the Military College at Addiscombe from 1836 to 1847

ARTICLES.		1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847
Beef and mutton	per lb	0 7½	0 7½	0 7	0 7½	0 7½	0 7½	0 8½	0 6½	0 6½	0 6½	0 7½	0 8
Flour best seconds	per sack of 50 lbs	30 0	45 0	45 0	01 0	54 0	46 0	52 0	37 0	41 0	35 0	48 0	57 0
Lump sugar	per cwt	32 0	35 0	36 0	70 6	85 0	103 0	82 6	78 0	78 0	77 0	55 0	55 0
Must ditto	do	66 0	02 0	64 0	01 0	63 0	80 9	60 0	68 9	66 9	56 0	50 0	49 0
So 1 India rice	do	1 6	22 0	1 6	9	33 6	34 3	30 0	29 0	29 0	17 6	22 0	24 6
Valentia raisins	do	49 0	46 0	41 6	41 6	47 0	42 0	38 0	38 0	43 0	52 0	42 0	45 0
Currents	do	68 0	80 0	07 0	74 0	84 0	78 0	64 0	60 0	35 0	32 0	36 0	40 6
Coupa tea	per lb	4 0	4 0	3 11	3 6½	5 5	4 4½	4 2	3 11	3 6	3 4½	3 9	4 4
Malt	per qr	64 0	64 0	50 0	68 0	70 0	63 0	60 0	49 0	63 0	64 0	62 0	89 0
Hops	per cwt	98 0	98 0	78 0	3 0	66 0	190 0	130 0	94 0	145 0	108 0	165 0	35 0
Maid candles	per doz.	6 1	6 1	6 3	7 3	0 9	6 9	6 11	6 7	6 0	5 6	8 6	6 5
D p ditto	do	5 8	5 4	5 7	6 6	5 11	8 10½	5 10	5 8	5 3	4 10	4 11	5 10
Spem oil	per gal	0 0	0 6	0 10	7 3	8 12	8 9	7 0	6 4	6 0	6 0	6 6	7 0
Yell w soap	per cwt	4 0	4 6	4 6	5 0	4 6	4 0	4 6	4 5	4 4	4 0	4 0	4 0

TABLE X.

EXPORTS OF SALT						IMPORTS OF SALT						
YEARS	FROM	TO	Quantity	Value	Cost per cwt	INTO	FROM	Quantity	Value	Cost per cwt	YEARS	
1845-47	Bombay	Calcutta	cwts	254,354	₹ 40,312	0 3 8	Calcutta	All parts	713,129	₹ 42,542	₹ 11 4 05	1844-45
1844-45	Ditto	Ditto		281,778	66,111	0 4 78						
1845-46	Ditto	All parts including Calcutta		800,148	87,750	0 9 39	Malabar	Bombay	292,317	1,15,041	0 8 58	1844-45
1844-45	Ditto	Ditto		410,264	82,285	0 4 87	Canara	Bombay	31,027	6,229	0 6 26	1844-45
1844-45	Madr + (N. C. S.)	Calcutta		234, 87	34,667	0 9 08						
1844-45	Madr + Pr. Agency	By India to Mysore		69,013	90,253	0 9 16						
1844-45	Madr + Pr. Agency	By India to Mysore and the Mysore territory		460,557	6,49,854	₹ 2 9 87						

TOTAL Imports by Sea into Calcutta during the Year 1844-45

FROM	Coast of Malabar	Ceylon	Arabian and Persian Gulf	England	France	Mauritius	Manilla	TOTAL
Quantity in cwts	381,404	2,124	290,219	682	6,233	634	2,602	713,128
Value in rupees	31,290	14,91	10,00,321	3,81	34,118	6,69	15,654	46,44,642

Duty inclusive.

*Copy of an Invoice given to J Chapman, Esq, July, 1846, by Mr Smith, of the firm of Nicol & Co, Bombay The transaction took place in July, 1845*

5 rash or 200 tons of salt — 5600 maunds, at 150 rupees per rash	R	A	P
Duty 12 annas per maund	750	0	0
Carriage hire from Tannah to Bombay	4200	0	0
Freight to Calcutta, 350 rupees per rash	15	2	0
	1750	0	0
	<hr/>		
	6715	2	0

The cost of this salt, including carriage, but exclusive of excise duty, to the purchaser's door, was a decimal more than  $4\frac{1}{2}d$  per cwt, and inclusive of the excise duty of 12 annas per maund, the price for shipment to Calcutta was  $2s\ 5\frac{1}{2}d$  per cwt., or  $49s\ 8d$  per ton

#### COTTON CULTIVATION IN INDIA

THERE is no product which has become so important, as a raw material, for the employment of the most numerous class of our manufacturing population, than the vegetable wool called cotton

This will appear evident when we consider that not only the United Kingdom, but the factories of Continental Europe and of America, have to rely for this material, chiefly, on the crops of the United States. It is true that many parts of the British Possessions are by soil and climate, adapted to furnish the most ample supplies of cotton wool. British Guiana, British India, and the North Eastern parts of New Holland, are all well adapted to produce cotton of the best quality in abundance, but the scanty, and high wages of, labour in Guiana and New Holland will long prevent our obtaining any great quantity of cotton, except from the United States, unless we, by improved cultivation and new facilities for preparation and bringing to market, increase the quantity of cotton which India can in profusion supply

The three great varieties of cotton, the *herbaceous*, the *shrubby*, and the *arborescous*, all thrive in India. (See lengthy correspondence in the reports on the cotton of India, laid before Parliament)

1 The *Herbaceous* (*gossypium herbaceum*) is a single species, but of different varieties, both in quality and value. It is biennial, and cultivated in India, as well as in the United States, China, &c. Its height is from two to six feet, with palmated, five lobed, dark green or brownish hues, with pale yellow leaves, and a triangular three celled pod, which is brown when about to burst, when it throws out three locks of white or yellowish cotton, to which the seeds adhere with tenacity. In India it is variously named viz, *larpassee* in Sanscrit, *raicee*, in Hindostani, *kapus*, in Bengali, *bauea*, in Central India, *pati chitoo*, in Telinga, *upun punthee* and *upun prali*, in Canara, and *penali*, in Malabar

The *Dacca* variety differs from the common *Gossypium herbaceum* --

1st In the plant being more erect, with fewer branches, and the lobes of the leaves more pointed

2nd In the whole plant being tinged of a reddish colour, even the petioles, and nerves of the leaves, and being less pubescent

3rd In having the peduncles which support the flowers longer, and the exterior margins of the petals tinged with red

4th In the staple of the cotton being longer, much finer, and softer

The Berar variety is cultivated in many parts of the Berar country, and from thence imported into the Northern Circars, by Sada, Balawansa, &c, to Yourmagoodum, in the Masulipatam district The fine Madras "long-cloth" is made of this cotton It differs from the two first sorts —1st, in growing to a greater size, in being more permanent, and in having smooth and straight branches, 2nd, in having the leaflets of the exterior calyx more deeply divided, and the fibre of a finer quality than the first variety

In South Behar there are four varieties —1st, the *Rehdhea*, the finest is sown about the autumnal equinox, and of this the Dacca muslins are said formerly to have been made, but none is now exported thither, 2nd, the *Heulee*, the next in fineness, is sown in June, 3rd, the *Jetowa*, is sown at the same period, 4th, the *Kohety*, which is yellowish This kind makes the best fine thread, and is cultivated chiefly to the north of Tirhoot —(*Trans Ind Agri-Hort Soc*, v, p 225)

The Guzerat cotton is also of this species The plants are described as differing from the Bourbon perennial kind, by never exceeding two or three feet in height, by having few branches and a smaller number of pods, and by yielding its wool in six months from the time of sowing

2nd The shrubby cottons are—

*G vitifolium*, or vine leaved cotton, which is in flower and seed the whole year, it yields but little wool

*G religiosum*, or nankeen cotton (Willdenow and Roxburgh), found in Surinam, Hindostan, &c Flower, uniformly yellow, wool, tawny This is occasionally grown in Burmah, where it is called *tea nee*

*G Barbadosense*, or the kind which was cultivated chiefly in Barbados It is known in India as the Bourbon cotton, and the plant is productive for several years\*

*G acuminatum*, is distinguished by its greater size, and large black seeds, which adhere firmly to each other, but easily separated from the wool It is said to be indigenous in the mountains to the north and west of Bengal. Dr Wallich describes a specimen brought from the Nussceerabad, where it seems

\* Mr Hughes, who has cultivated successfully the Bourbon cotton near *Tinniveli*, says the plant will last a great number of years without falling off in productiveness, if properly managed

to be common. He says that it is very productive, and that the wool is milk white, long in staple, and, although that which was grown in the Botanic Garden, at Calcutta, was harsh and woolly, yet the variety seems improvable by culture, because the specimen from Nusseerabad was soft and silky—(*Transactions Ind Agri-Hort Soc*, III, p 149)

Mr Rundell, in 1819, describes this kind as growing to the height of ten or twelve feet, that the shrub produces at least 600 large pods, each containing from six to ten conglomerated seeds, enveloped in very fine and valuable wool. It thrives well on the margin of water—lasts about seven years, requires pruning occasionally of its dead branches, &c, and, during very hot weather, should be watered at least twice a week. An acre will suffice for about 500 shrubs, 230 pods usually weigh one pound, and yield from four to five ounces of clean cotton—(*Government Report on Cotton*, &c, p 88)

Plants of this species differ from the herbaceous not only in height, but in the form and size of their pods, which are oval and larger. In addition to these distinctions they are longer lived for, although in the most temperate climates capable of growing cotton, they frequently become annuals, yet, in the most torrid localities, they are perennial, whilst in the West Indies they are either biennial or triennial, and in Egypt, &c, live for six, or even ten years.

The Persian cotton shrub on the sea-coast, lives for twenty or thirty years, but in the interior it is cultivated as an annual.

*G obtusifolium* (Roxburgh), a native of Ceylon, producing a small quantity of ash coloured wool, not cultivated.

The tree, or arborescent cotton-plant, *Gossypium arboreum*, grows to a height varying between twelve and twenty feet. It is indigenous to Hindostan, China, Egypt, and some other parts of Africa. Dr Roxburgh says it is not cultivated for its wool, but Dr Royle states "that some, produced by this species at Sahnapore, was pronounced by a competent judge to be of the best description, as both staple and fabric were good"—(*Botany of the Himalayan Mountains*, p 96) "It appears worthy," he adds, "of being the subject of further trials, particularly to ascertain its productiveness, for of the fineness and silky nature of its staple there can be no doubt, as it is employed by the natives for making the finest muslins only. It was cultivated like the common Indian cotton, and gave its produce, in the first year, during October and November, and a second crop in February.

*Districts best suited for Cotton*—As some one of the several species of cotton plants may be found in every district of Hindostan, from Cape Comorin to the Himalaya Mountains, it is assumed that no portion of the globe of equal extent, is capable of yielding so large a quantity of this useful material, and from the earliest ages, cotton is often alluded to as a special production of India.

It is also assumed, that no part of India has a climate unsuited to the pro

duction of superior cotton "That this assumption ' is demonstrated by the fact that the best samples are produced in Guzerat, at the north-western extremity, in Behar, the very centre, and at Tinnivelly, on the most southern point

"That it appears that it is the generally dry siccous nature of the soil of Guzerat, as much as the dryness of its climate, that is so extremely favourable to the growth of the cotton plant It flourishes there even in the most sterile districts, though necessarily not so luxuriantly as in the more fertile soils

"The same observation applies to the neighbouring province of Surat, where good cotton is produced, but the best in that part of India is grown in the districts of Jambooseer and Ahmoed, and, indeed, throughout the Broach Pergunnah This is stated, in a government report, to be very superior to the Nagpore or any other cotton grown on the eastern side of India "

Mr Owen Potter, who was extensively employed in shipping cotton from the above districts, in 1837, states, in a paper which he submitted to the Manchester Chamber of Commerce, that "the chief cotton ports are Surat, Baroche, Tankaria Bunder, Gogo, and Bownugger " All these ports are within a short distance of each other, and nearly the whole of the cotton above mentioned grows within forty miles of the port at which it is shipped

"At Omrawutte, cotton is grown at the rate of two pounds for twopence, in moderately favourable seasons, and did good roads exist, this article could be delivered at Bombay at a handsome remunerating price It is now carried on the backs of bullocks, and the extra cost thus incurred amounts to a penny a pound more This cotton is but little inferior to that grown in Guzerat, which is looked upon as the garden of the western side of India."—*Proceedings of the Trans Ind Agri-Horticultural Society*

In the Deccan the production of superior cotton is not confined to the vicinity of Nagpore, for it can be obtained abundantly much further to the north, at Calpee, as well as in the districts of Currah, Carah, and Etawah

The cotton grown in the southern extremity of the Peninsula, at Tinnivelly and Combatore, has been highly approved of in the English market

"At Tinnivelly, where Mr Hughes has been long engaged in the cultivation of the Bourbon cotton, that gentleman considers the vicinity of the sea, or situations to which the influence of the sea air extends, are on every account to be preferred A dry soil, and a dry atmosphere, from March to May, and from July to September, seem almost essential to the good quality of the wool, as well as to the productiveness of the plant The freest circulation of air, and of light winds, are of the greatest benefit to a perfect culture

"Mr Heath, a gentleman also experienced in the cultivation of the same description of cotton, states that his experience differs from that of Mr Hughes with respect to the influence of vicinity to the sea, for he found the cotton come to



perfection at the distance of 150 miles from its shore—(*Proceedings of Agri Comm of the Royal Asiatic Society*, p 72)

"In Burmah, cotton is cultivated very extensively, chiefly for the China market, though the accounts are too discrepant (varying from 7,000,000 to 37,000,000) to allow of a satisfactory estimate being given of the annual amount. The greatest quantity is produced in the neighbourhoods of Ava and Prome, but that produced at Bauksk and that in the Mataban province (known as Tenasserim cotton), appears to have the longest staple—(*Trans Agri-Hort Soc of India*, II, 123-131)

"A specimen of Georgia Upland cotton soil, Mr Piddington says, 'resembles much in appearance the light, fawn coloured, sandy soils of Lower Bengal. One half, by weight, was coarse gravitic sand, with a few minute fragments of felspar and shells, and some vegetable remains, chiefly from cotton shrubs. It was closely analogous to the Sea Island soils in showing, when heated, that it contained lignite or peaty matter'

"The *mar* or *marrah*, a black soil from Bundelcund, said to be found in that district, the best soil for cotton, if not lying so low as to retain the water, was also examined by Mr Piddington. He describes 'its appearance, when dry, to be that of a dark, brown, heavy, interspersed with small white nodules, which are soft *kunkur*\*. So that the whole is easily pulverised.' 'It forms with water a tenacious clay, and dries into tough lumps, giving every indication of being what the black soil for cotton is described to be, viz, a soil produced by the decomposition of trap rocks, forming a tenacious mud in the rains, and drying into a hard black clay, crossed by innumerable deep fissures and cracks in the hot winds'

"When heated in the matrass, a striking difference appears between this and the American soils in the total absence of any trace of lignite or peaty matters'

"Coimbatore, or *Oopum* cotton soil, considered one of the best for this crop in southern India, Mr Piddington states to be like the last, black in colour and tenacious in consistence, but modified in this respect by the intermixture of felspar and silica.

'The Timmvelly soil found best suited for the growth of the Bourbon cotton plant, looks like a mixture of lime rubbish and yellowish brickdust, and is intermixed with nodules of *kunkur*'

"A specimen of the best Singapore cotton soil was examined by Mr Piddington. He describes its appearance as very remarkable "it consisted appa-

\* *Kunkur*. A singular calcareous concretion stratified, and in lamellated masses of all sizes, containing from fifty to eighty per cent of carbonate of lime some magnesia, iron, and alumina interspersed sometimes in large quantities throughout extensive tracts of the alluvial and secondary formation of India. The analysis of some average samples gave me from seventy to fifty per cent of carbonate of lime some by Mr James Prinsep, gave from eighty four to fifty nine per cent.—*Trans Agri Hort Soc*, vol VI, note to p 207

rently of large, coarse grains of white sand, mixed with coarse charcoal dust and fragments of vegetables and mosses of all sorts, being in fact, as to appearance what we might suppose the Sea Island soil to be before it was reduced to a finer state. When sifted, indeed, it almost exactly resembles the Sea Island soil, except that the sand, being white, renders the contrast between it and the carbonaceous dust more striking. About one-third of it was coarse silicious gravel without felspar or fragments of shells, and with a few remains of carbonised wood, roots, and moss intermixed with it."

The following Table exhibits the result of Mr Piddington's experiments

No.	COTTON SOILS	Vegetable matter	Saline and organic galls?	IRON			Carbonate of Lime	Magnesia	Alumina	Silica	Water and lost.	Price of best cotton in Liverpool	REMARKS
				Protox	Deutox	Triox							
AMERICAN													
1	Georgia Sea Island	3.90	0.30	1.0			2.73	0.20	52.00	0.83	24		Vegetable matter peat or lignite partly soluble in cold water silica in coarse grains
2	Supposed Georgia Sea Island	5.00	0.60	1.30			4.60	0.63	88.00	0.48	24		Ditto
3	Upland Georgia	4.60	0.10	1.25			3.90	1.00	80.35	0.73	18		Vegetable matter peat or lignite but nothing soluble in cold water; no saline matters
INDIAN													
4	Bundelkond	2.00	0.33		7.75		11.90	trace	3.10	74.00	1.00	5	No peat or lignite nothing soluble in cold water silica in fine powder Avukur in the gravel
5	Colombatore	2.30	traces	4.00			7.50	trace	2.60	82.80	0.60	5	Gravel mostly silica with some felspar but no Avukur
6	Bourbon seed cult in (Tinnevely)	0.15	0.20			7.68	12.5	0.15	2.00	74.00	1.12	10	Gravel almost wholly Avukur some carbonate of iron half the soil of gravel
7	Mauritius	1.75	0.30	9.15			40.83	trace	2.50	43.60	1.85	12	Silica mostly coarse grained gravel mostly calcareous
SINGAPORE													
8	Best soil	9.15	0.09		0.25		1.25			88.20	0.15	0	Vegetable matter mostly peaty and very soluble
9	Inferior soil	1.00			0.71		0.071			28.85		4	Vegetable matter peaty *

\* Trans Agri Hort Soc vol vi 216.

The conclusions which are drawn by Mr Piddington from these researches, are "1st That the abundance and fineness of good cotton depends on the quantity of carbon in the soil, and the solubility of that carbon 2nd That the next best soil is one containing carbonate of lime 3rd That the soil should not be too tenacious "I have had repeated experience of this," he adds, "in Bengal, and, on the Bombay side of India, I observed some time ago, that a Parsee gentleman, Furdonjee Cowasjee, had partly failed, or experienced much loss, in some experiments in cotton, in consequence of the clayey nature of the soil, which retained too much moisture. In the West Indies, the years of drought are far the most favourable to the cotton crops, and the Singapore soils are instances of cotton growing in what might be called pure sand with vegetable

matter, but we must, probably, make allowances in these instances for the vicinity of the sea"—(*Trans Ind Agri-Hort Soc*, vol vi, 223—4) 4th That it is preferable for the sand to be in coarse particles

Writing from Tinnivelly, Mr Hughes states, "that the red and brown loams, or, indeed, any silicious or calcareous soil, fertile in a moderate degree, is the most suitable and fruitful That no very rich, heavy, retentive, stiff soils, should ever be selected, for though the plants are luxurious, yet they have as much and more tendency to produce redundancy of wood and leaf than of fruit buds, besides harbouring insects What is commonly known in many parts of India, under the denomination of *black cotton soil*, Mr Hughes states is to be entirely avoided

Captain Robertson reported to the Bombay government "that the Bourbon cotton succeeded very well in the eastern parts of Broach, in the light sandy soils, as recommended by the cultivators of the Isle of Bourbon"

The Agri-Horticultural Society of Bangalore reports that the light brown soil of moderate depth and rather sandy (so prevalent in Mysore), seems to be the soil that suits the Upland Georgia and New Orleans, but the Sea Island thrives in moist ground that is well drained—(*Trans Agri Hort Soc of India*, vi, 230)

Mr Ewart, speaking of his experience in the cultivation at Guzerat of Bourbon cotton, or a variety nearly akin to it, says, "it requires a dry, sandy soil, and no irrigation, water or manure sends it all to leaves and branches"—(*Proceed Agri Hort Soc of India*, May, 1839, p 22)

The failure of the experiments made at the Akra farm by the Agri Horticultural Society is an illustration of the unfitness of an over-fertile tenacious soil for the production of cotton The committee of the society, reporting upon the failure, observe, "that it establishes the fact that the cotton of America will not flourish on a rich and moist soil, whilst its natural basis is, for the most part, composed of three fourths of sand, and one-fourth of clay" This was evidenced "by the rapidity and luxuriance of vegetation, in the production of abundance of wood, leaf, and flower, but little produce"

These results point out that soils constituted almost entirely of the least retentive of all constituents silex, carbonate of lime (chalk), and oxide of iron, are best suited to the growth of cotton In other words, that the soil cannot be too light, whether it is upland or lowland, maritime or inland.

Mr Heath says, "that in the Madras territories, two species or varieties of cotton plant are cultivated, and these require very different soils, one is annual (*oopenum punthee*, *G herbaceum*?) and the other perennial (*madam punthee*) The first succeeds only in the 'black cotton soil,' formed apparently from the decom-

position of trap rocks, but the second only in a very light soil, formed from the disintegration of granitic rocks, especially when mixed with *lunkur*, or calcareous tufa "

"Mr Heath made his experiments on the Bourbon cotton in the latter kind of soil, which is more abundant than any other in the districts on the Coromandel coast, south of Madras, and he entertains no doubt, that the Bourbon cotton plant might be successfully cultivated wherever this kind of soil occurs. In introducing this cultivation, he had to encounter the usual difficulties consequent on the introduction of any novelty in agriculture, but these gave way to perseverance. At the end of four years, Mr Heath had the satisfaction of seeing the experiment completely successful, as in the seasons 1823—4, he procured from the district of Combaçore, 500 bales of clean Bourbon cotton, of 300 pounds each, and the natives were, at that time, well satisfied, that the cultivation of this was more profitable to them than that of the common cotton of the country"—(*Proceed Comm Agri Royal Asiat Soc*, 1838, p 72 )

"Mr Bolingbroke says, that in Demerara the British settlers found that the cotton plantations succeeded better on the sea-coast than on the banks of the river, a superiority which he attributed to its containing more common salt.—(*Bolingbroke's Voyage to Demerara*, 204 ) This opinion that salt promotes the growth of the cotton plant is also expressed in the third report of the African Institution, it being stated positively that the saline air of the sea-shore, though generally destructive to the coffee plant, is favourable to the cotton"—(*Report III*, p 23 )

Mr Bernard Metcalf, remarking upon the cottons of India, observes, "that the Georgia, Sea Island, Surinam, and Demerara cotton plants are all grown on the border of the sea, and the prime qualities only so far inland as the influence of the sea air and tide waters extend"—(*Government Report on Cotton*, &c, p 418 )

A very able report has lately been transmitted from Bombay on the produce of cotton in India, and pointing out forcibly the decline in its cultivation. It appears, however, that the quantity grown in all India is very great, for the population is chiefly clothed with cotton manufactures made of the raw material grown in the country. As the Bombay Report and also a huge volume of correspondence have recently been presented to both Houses of Parliament, we can do no more than refer to them, and to the following statistical tables of the cotton trade of India, &c \*

\* See also statistics of cotton, in the Report on the United States, which we prepared for Parliament

STATEMENT of the Quantity of Cotton shipped by the Honourable Company to China from the Presidencies of Bengal, Fort St George, and Bombay, from the earliest Date comprised in the Company's Returns of the Export Trade down to the close of the Exclusive Trade of the Company to China.

YEARS	BENGAL			MADRAS			BOMBAY		
	QUANTITY		VALUE	QUANTITY		VALUE	QUANTITY		VALUE
	Bales	Weight	Tales	Bales	Weight	Tales	Bales	Weight	Tales
1745-06									
1746-07									
1747-08									
1748-09									
1749-1000									
1801-0							15,884	5,902	2,138
1802-03							5,403	2,416	1,712
1803-04									
1804-05									
1805-06				2,191	1,316	45,383			
1806-07	672	1,000	11,536						
1807-08				53	30	1,378	10,570	3,840	2,271
1808-09							7,801	25,155	174,854
							16,900	55,298	6,314
1809-10	2,243	mds	40,016						
1810-11				1,582	1,190	37,109	4,683	1,183	1,903
							12,302	3,041	3,604
1811-12	8,06	lbs	2,000	4	1,35,000	0,022	14,454	47,078	2,000
1812-13	10,817	3,185,400	4,34,228	2,670	801,600	40,246	19,743	61,606	5,24,603
1813-14	1,935	899,500	50,877	5,905	1,71,500	113,402	30,609	7,344,523	5,74,018
1814-15									
1815-16	4,041	1,476,300	1,09,890	5,840	1,759,000	1,32,273	21,775	79,978	5,45,496
1816-17									
1817-18	4,631	1,389,300	96,610	7,512	3,888	1,41,037	23,076	75,728	6,25,156
1818-19	5,560	1,771,700	1,15,911	4,743	2,814	1,15,400	53,984	75,463	6,37,201
1819-20	9,545	2,873,000	3,187,400	2,548	1,022	70,684	18,208	60,009	6,10,416
1820-21	26,601	85,9,400	8,46,192	4,910	2,586	1,34,954	30,619	65,999	7,29,468
1821-22	20,151	6,045,300	5,11,310	4,860	2,915	1,34,007	25,774	12,070	8,11,141
1822-23									
1823-24	5,000	32,141	1,51,257	6,11	3,762	1,11,803	6,556	3,116	1,51,717
1824-25	2,168	101,150	5,05,205	7,442	4,112	9,01,130	16,300	7,452	3,54,000
1825-26	20,099	83,413	4,15,714	11,291	6,119	2,73,714	18,119	8,604	3,82,112
1826-27	13,066	8,120	3,8,121	7,738	4,40	1,88,081	13,077	6,143	2,77,032
1827-28	32,115	1,29,148	6,04,400	8,092	5,256	2,38,407	1,0,095	7,148	2,74,025
1828-29	33,694	61,177	4,41,199	12,095	7,217	2,81,476	22,480	19,600	8,11,523
1829-30	43,114	1,79,103	32,103	12,000	7,714	3,24,205	16,404	7,200	3,11,794
1830-31	41,174	8,0,071	7,71,160	12,000	8,100	3,14,207	1,0,012	7,000	3,30,000
1831-32	20,000	1,69,313	4,85,184	5,103	5,691	2,10,207	11,000	11,000	6,17,000
1832-33	11,410	73,693	2,88,698				18,100	8,610	3,62,000
1833-34	21,778	not stated	2,9,164				17,000	not stated	4,85,000

STATEMENT of the Quantity (with Value) of Cotton (excepting the Honourable Company's China Investment) shipped at the Port of Calcutta to all Parts of the World beyond the Presidency of Fort William, from the Official Accounts, 1795, down to the Year 1835, inclusive

YEARS	TOTAL		UNITED KINGDOM		CHINA		OTHER PLACES
	Quantity	Value	Quantity	Value	Quantity	Value	
1795-96	mounds 8,853	rupees 1,47,311	mounds 6,338	rupees 1,11,384	bales 111,384		
1796-97	8,338	1,36,970	3,352	55,228			
			bale				
1797-98	10,227	1,80,711	1,130	58,804	703	31,321	
1798-99	47,113	4,21,033	8,406	2,84,508			
1799-1800	6,187	10,817	978	45,192			
1800-01	1,520	25,355	806	27,738			
1801-02	810	15,160	222	7,160			
1802-03	39,843	6,10,017	2,072	57,300	8,018	1,60,953	
1803-04	1,91,177	2,13,185	2,110	1,06,207	4,874	29,912	
1804-05	1,48,814	19,01,507	688	25,809	38,873	1,42,217	
1805-06	2,21,885	30,41,14	2,125	1,18,12	59,235	2,87,116	
1806-07	1,74,112	10,28,502	7,315	3,94,206	23,884	1,24,386	
1807-08	1,75,726	26,07,805	3,117	2,07,428	41,184	2,17,232	
1808-09	1,91,684	23,08,079	2,016	1,07,014	50,809	27,42,800	
1809-10	2,41,861	39,15,161	4,0781	20,25,227	35,637	17,6,950	
1810-11	1,21,822	16,02,040	3,477	1,31,177	2,060	1,16,809	
1811-12	1,18,113	17,91,681	1,600	9,351	2,36	15,3,789	
1812-13	20,847	2,68,844			3,711	2,192	
1813-14	2,21,113	39,22,026	11,05	5,39,279	76,951	3,16,811	
1814-15	2,73,194	4,60,622	21	9,29,415	82,40	3,4,685	
1815-16	3,26,58	38,21,4	17,228	6,57,187	74,478	39,66,98	
1816-17	6,60,236	16,97,288	83,014	31,94,791	53,118	56,67,24	
	also Co. a 10,92,600	not stated	Co. a 10,02,000	not stated			
	mounds		bales				
1817-18	10,02,363	1,10,13,074	1,64,843	53,79,91	103,700	31,21,969	
1818-19	8,67,759	89,4,871	1,27,121	37,9,030	63,116	19,09,724	
1819-20	87,426	25,29,773	30,843	6,08,982	37,035	16,35,5	
1820-21	4,78,319	44,40,861	12,389	7,16,137	70,397	37,21,607	
			mounds		mounds		
1821-22	2,20,171	74,21,711	15,774	3,71,002	2,16,228	30,38,642	
1822-23	9,95,944	1,24,44,980	23,96	2,84,386	67,17	9,17,12	
1823-24	1,89,213	23,41,568	4,370	4,51,021	1,15,006	18,90,185	
1824-25	9,31,905	3,96,325	4,294	8,01,79	1,16,724	96,999	
1825-26	2,26,141	36,57,130	58,140	4,76,163	1,72,001	25,7,194	
1826-27	2,75,709	41,60,534	64,68	9,2319	1,14,02	35,4,550	
1827-28	9,16,084	32,6,892	17,639	5,68,887	1,9,530	29,81,719	
1828-29	2,01,083	25,88,423	14,536	1,8,911	1,86,025	23,0,25	
	5,491	34,266	47	3,26	2,390	26,717	
1829-30	also Co. a 2,415	1,01,533	Co. a 2,413	1,01,098			
	60,039	5,79,11	92,116	1,84,186	45,838	3,87,511	
1830-31	also Co. a 2,203	40,848	Co. a 2,203	42,948			
	52,775	4,47,746	7,707	90,174	46,183	3,81,340	
1831-32	also Co. a 8,357	1,01,877	Co. a 8,357	1,01,877			
	631	64,11	3,815	41,663	3,730	22,848	
1832-33	also Co. a 6,045	92,191	Co. a 6,045	92,691			
	2,910	98,325	1,96	1,916	2,671	20,746	
1833-34	also Co. 12,556	2,00,782	Co. 12,556	2,04,772			
1834-35	3,29,022	31,26,070	37,13	4,40,311	3,09,844	37,37,431	

For all other places, see previous tables in details on the Commerce of India

STATEMENT of the Export Cotton Trade of the Port of Calcutta, from the 1st of May, 1833, to the 30th of April, 1846, compiled from the Official Records furnished from the Calcutta Custom House

P E R I O D	G R E A T B R I T A I N		F O R E I G N E U R O P E		C H I N A	
	Mauuds	Value	Mauuds	Value	Mauuds	Value
1833-34	number	rup es	number	rupees	number	rupees
1 4-3	10 778	1 06 730	2 769	24 015	1 34 809	13 5 162
1834-35	22 767	3 17 779	2 16 9	24 581	29 114	27 0 1 0
1 5-36	1 10 578	12 46 612	21 6 9	2 74 581	4 40 600	47 40 3 5
1 6-37	18 244	1 71 010	11 160	1 28 146	4 00 598	35 11 031
1837-38	3 755	30 170	73	608	1 97 910	18 10 020
1838-39	3 515	28 482			28 621	21 9 086
1839-40	2 5 4	23 81	2 7 9	2 311	1 387 8	11 16 008
1840-41	1 90	14 041			1 60 508	1 5 447
1841-42	4 628	40 75			80 591	8 08 171
1842-43	1 501	10 610			1 49 384	14 86 550
1843-44	1 744	25 805			1 45 738	10 5 379
1844-45	1 355	13 159			1 09 3 5	10 03 252
1845-46	147	1 477			89 089	8 88 586
Total mauuds	2 21 752	2 61 737	41 377	4 68 681	27 12 751	2 65 00 270
Total Rupees	1 82 05 960		34 01 30		22 22 1 468	
Total Rupees	1 62 533		30 350		10 50 047	

STATEMENT—(continued).

P E R I O D	S T R A I T S O F M A L A C C A		A l l O t h e r Q u a r t e r s		G R A N D T O T A L		A v e r a g e V a l u e p e r M a u d
	Mauuds	Value	Mauuds	Value	Mauuds	Value	
1833-34	number	rupees	number	rupees	number	rupees	Rs Dec
1834-35	73	600	31	271	1 43 355	14 32 501	9 99
18 36-37	3 066	28 614	1 622	18 315	3 76 827	31 46 130	9 74
1837-38	4 156	45 444	839	6 73	6 63 762	62 63 777	16 3
1838-39	1 652	19 568	495	3 910	4 31 43	38 3 137	8 81
1839-40	1 810	15 48	267	865	2 03 891	18 61 165	9 18
1 40-41	1 328	13 89	7	29	2 32 59	22 21 860	9 05
1841-42	1 44 7	1 50 134	7	29	1 80 411	18 2 543	10 12
1 42-43	22 733	2 55 059	15	60	1 84 816	19 26 227	10 42
1843-44	24 50	2 8 624	175	707	1 10 944	14 03 337	10 92
1844-45	2 580	2 6 439	369	1 283	1 21 801	17 16 983	9 58
1845-46	2 971	42 227	3	29	2 01 457	20 25 140	10 65
1 46-47	1 161	11 612	21	218	61 871	20 18 745	10
184 48	4 886	44 862	48	241	63 62	5 25 164	9 7
Total mauuds	1 02 705	11 17 155	3 842	33 2 4	80 81 034	3 04 1 1967	9 87
Total Rupees	84 1 154		3 16 142		2 33 00 140		
Total Rupees	7 1 7		2 953		2 64 2 8		

STATEMENT of the Cotton Exported from the Presidency of Madras, 1824 to 1835—(Official Account)

Y E A R S	T O T A L		U N I T E D K I N G D O M	B E N G A L	C H I N A	B O M B A Y	O t h e r P l a c e s
	Quantity	Value	Value	Value	Value	Value	
1821-2	nr	rupees	rupees	rupees	rupees	rupees	
18 23-4	41 87	20 86 269	1 05 657	62	8 70 130	1 10 921	
18 25-6	5 020	11 65 024	1 16 631		5 4 5 4	4 74 165	
18 27-8	40 610	7 16 849	42 525	1 4 3	5 1 31	1 42 2 8	
18 29-30	3 5 6	7 10 819	31 774		6 1 527	2 625	
18 31-2	31 737	11 42 101	52 33	1 71	7 01 402	2 07 3 3	
18 33-4	61 524	12 11 708	11 763	46 1 0	1 1 1	4 2 886	
1835-6	5 16	7 601	1 015	10 125	5 36 20	12 4 0	
1837-8	42 76	8 3 4 7	6 7 8 0	29 44	1 21 260	26 0	
1839-40	33 00	6 3 278	2 686	3 119	1 31 129	2 0 624	
1 41-2	4 82	4 116	95 203	3 886			
1843-4	1 5	1 3 0	4 13 505	62 4			

See general Tables of Commerce

STATEMENT of the Export Cotton Trade of the Port of Madras from May 1, 1833, to April 30, 1846, compiled from the Official Records furnished from the Madras Custom-House

YEARS	GREAT BRITAIN		FOREIGN EUROPE		CHINA	
	Candies	Value	Candies	Value	Candies	Value
	number	rupees	number	rupees	number	rupees
1833-34	724	16,595	4	279	9 3	77 1 1
1834-35	5 121	9,80,205	353	26,106	2,701	1 3 1 1
1835-36	13,077	9,26,746	1,695	1,19,412	21,912	11 1,000
1836-37	18,936	10,73,046	2,222	1,80,709	25,433	23 1 5
1837-38	1,264	31 7	351	26,285	65-9	1 3 3
1838-39	3,768	3,04,265	477	31,738	14,436	11 102
1839-40	18,759	14,67,13	4,653	3,72,898	6,585	5 1 3
1840-41	5,859	3,71,0 7	259	17,578	5,778	32 1 37
1841-42	1,412	40,600	229	17,215	37,215	11 13,574
1842-43	2,365	2,44,711	42	9,669	40,326	24 10 24
1843-44	4,661	2,11,376	359	15 41	19,514	11 13 46
1844-45	12,329	8,54,582	2	66	17,712	11 11 511
1845-46	6,514	3,38,081	2	66	5,101	280,307
Total candies	111,500	73,92,085	10,570	7,90,961	1,66,656	1,76,33 11
Total lbs	50,00,000		82,45,000		9,33,29,000	
Total cwt	4,99,107		47,186		8,33,296	

STATEMENT of the Quantity (with Value) of Cotton (excepting the Honourable Company's China), shipped at the Port of Bombay to all Parts of the World beyond the Presidency of Bombay, 1801

YEARS	TOTAL	UNITED KINGDOM	FRANCE	CHINA	OTHER
	Value	Value	Value	Value	PLACES
1801-2	rupees 29,68,180	rupees 1,29,509	rupees	rupees 36,84 16	
1802-3	53,25,407	1,9,045		41 2 69	
1803-4	4,68,608	2,7,065		83 1,509	
1804-5	80,44 29	1 3,114		70 23,642	
1805-6	3,94 113	5,88,785		64 9,689	
1806-7	The register for this year were not set out				
1807-8	59 2 224	7,32,835		72 26,978	
1808-9	51,71,923	7,33,182		41 10,612	
1809-10	2,17,460	12,10,811		36 4,181	
1810-11	4,63,651	10 6,935		23 5 21	
1811-12	3,22,137	29,260		30 1,570	
1812-13	23,79,806	18 3 7		12 24 15	
1813-14	26,18 7 3	96 65		2,637	
1814-15	36,28,028	96 65		20 91 08	
1815-16	53,64 159	1,90,917		41 641	
1816-17	57 51,694	21 3 75		41 47,786	
1817-18	20,736	29 26	2,68,333	46 27,553	
1818-19	99 19,397	37 91 24	3,54,477	31 33,779	
1819-20	1,20,63,140	6 56,197	3,06,061	10 91,252	
1820-21	87 11,523	29 23		44 29,058	
1821-22	87 11,377	26 80,470		32 26,019	
1822-23	Co 6,31,841	6 39,644		30 4,329	
1823-24	Co 2,51,216	2 1 16		3 7 3	
1824-25	Co 47 4,153	8,40,546		30 19,996	
1825-26	Co 4,946	8,40,546		30 4,329	
1826-27	37 11,103	7,110 19		3 7 3	
1827-28	61 92 3	1 4 3		30 19,996	
1828-29	99 4,275	24,14,089		3 7 3	
1829-30	11 90,53	1 13 03	37 115	7 8 142	
1830-31	8 11,67	25 3 1	10,200	56,23,252	
1831-32	103 8,334	41 91 31	5,200	5 77 111	
1832-33	11,64,225	41 91 31	62	4,62 4	
1833-34	5 7,122	14 1,656	8 12	61 51 615	
1834-35	20 3,423	33 7 31	12,344	53 28,302	
1835-36	Co 21,676	27 79		53 4,590	
1836-37	89 10,116	27 1,594	16,578	5 2 31	
1837-38	121 59 66	69 19,134	44 936	80 15 1	
1838-39	147 81 50	53 6 74			

See Tables of General Trade of India



CULTIVATION AND SUPPLY OF COTTON

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STATEMENT of the Export Cotton Trade of the Port of Madras—(continued)

YEARS	STRAITS OF MALACCA		ALL OTHER QUANTERS		GRAND TOTAL		Average Value per Candy
	Candies	Value	Candies	Value	Candies	Value	
	number	rupees	number	rupees	number	rupees	
1833-34	303	11,181	685	48,937	9,988	1,356,638	120.39
1834-35	265	14,314	399	2,963	6,784	6,41,293	95.74
1835-36			63	4,340	37,259	2,58,128	69.74
1836-37	95	1,815	718	56,610	41,333	31,88,565	81.39
1837-38			68	6,070	8,260	6,10,211	73.85
1838-39	0	400	11	4,531	18,1	14,60,856	78.53
1839-40	85	6,13	318	24,075	30,600	23,57,185	77.03
1840-41	1,051	62,098	11,078	7,31,737	39,530	1,57,916	65.77
1841-42	1,558	2,933	3,883	1,86,763	44,73	25,98,115	69.24
1842-43	5,341	1,08,748	184	8,843	48,124	28,10,480	68.22
1843-44	1,116	5,998	29	1,780	25,680	14,02,330	54.64
1844-45	912	53,653	1,876	1,19,665	39,839	21,19,841	29.14
1845-46	857	19,586	1,370	6,517	13,434	7,14,160	51.16
Total candies	12,201	6,37,342	21,301	13,51,254	3,45,298	17,12,64,000	
Total lbs	61,00,500		1,06,30,569		17,12,64,000		
Total cwts	54,464		93,694		15,29,143		

GENERAL Statistics of the Cotton Trade of Bombay from the 1st of January, 1834, to the 31st of December, 1846, compiled from the Official Records of the Bombay Custom House

EXPORTS

PERIOD	GREAT BRITAIN		FOREIGN EUROPE		CHINA		STRAITS OF MALACCA		
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	
1 Jan to 30 April 1834	number 46,844	rupes 18,70,637	number 2,73,616	rupee 44,936	number 2,07,04,756	rupees 38,20,453	number 3,75,929	rupees 68,750	
1834-35	3,177,712	78,18,510	18,66,272	63,718	9,92,00,276	37,4,488	3,14,288	6,122	
1835-36	4,57,255	5,267	1,62,24,245	11,37,789	9,71,17,216	25,82,388	3,14,288	6,122	
1836-37	5,31,73,901	1,02,36,225	4,43,972	79,210	4,44,64,964	70,117,9	6,94,694	1,63,417	
1837-38	7,91,00,9	8,85,81,255	2,67,032	27,083	5,61,61,928	80,25,130	11,70,009	1,0,400	
1838-39	3,18,00,457	4,13,069	2,33,737	26,403	6,70,72,512	92,1,353	4,09,138	57,819	
1839-40	5,90,91,124	60,4,303	2,71,19	41,210	2,11,08,529	56,06,830	2,72,957	4,23,429	
1840-41	8,1,81,088	1,18,75,417	6,42,499	83,128	3,37,11,019	4,7,879	1,35,98,118	1,16,432	
1841-42	1,10,4	5,031	1,144,793	1,11,718	14,818	4,74,09,464	1,3,08,156	74,9,007	3,65,156
1842-43	6,28,3,911	89,02,953			7,64,44,44	94,2,441	4,20,9,28	6,38,404	
1843-44	5,17,81,828	1,10,64,169	29,475	3,423	7,75,51,410	91,51,299	10,79,600	1,50,24	
1844-45	7,2,96,554	64,81,41	1,76,115	1,763	6,88,12,811	84,74,928	15,31,714	1,71,610	
1845-46	4,71,05,311	63,41,108	8,88,814	98,417	7,45,58,187	70,3,330	27,68,094	2,75,380	
1 May to 31 Dec 1846	2,4,8,490	35,94,212			3,16,63,632	31,05,214	2,41,440	31,285	
Total lbs	77,60,65,818		62,75,699		68,66,34,621		4,32,50,220		
Total cwts	69,34,416		56,211		61,20,617		3,81,331		
Total candies	5,30,645	11,04,66,637	8,030	7,44,463	8,74,810	43,84,735	42,474	48,72,765	
Average of 13 years	7,263	84,28,164	618	5,118	67,270	2,96,518	3,267	8,4328	

PERIOD	ANILLA		PERSIAN GULF		ARABIAN GULF		COAST OF AFRICA	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
1 Jan to 30 April 1834	number 12	rupees 3	number 2	rupees 3	number 4	rupees 6	number 1	rupees 1
1834-35			2,59,300	47,47	4,34,724	73,966		
1835-36			78,698	16,100	1,36,056	1,61,907	31,552	3,490
1836-37			1,44,357	14,623	14,623	12,22,9	2,51,073	
1837-38			1,35,00	18,846	14,30,192	2,03,14	8,624	1,910
1838-39			4,37,11	45,354	10,14,624	1,47,5,0	7,51,516	9,223
1839-40			1,28,36	15,150	10,43,873	1,95,883	2,3,568	4,173
1840-41	2,60,758	27,953	91,350	14,962	10,8,740	1,54,937	1,63,304	13,331
1841-42	8,24,129	118,414	4,448	6,270	10,97,003	1,40,654	1,080	212
1842-43			2,61,92	17,43	9,72,168	1,13,812	74,228	8,498
1843-44			1,36,125	18,699	7,11,35	77,313	36,023	3,976
1844-45			1,1,3	2,927	7,50,469	1,92,2	11,268	1,985
1845-46			1,9,58	30,320	10,13,493	1,07,377	19,030	1,841
1 May to 31 Dec 1846	21,672	2,009	4,810,510	46,613	9,31,132	91,535	71,110	6,651
Total lbs	11,12,82		28,76,711		1,36,99,351		4,68,651	
Total cwts	9,35		25,185		1,91,691		4,663	
Total candies	1,49	1,48,376	3,669	31,04	17,484	19,07,306	653	36,204
Average of 13 years	309	11,414	253	26,665	1,247	1,39,616	48	4,417

## GENERAL Statistics of the Cotton Trade of Bombay, from 1st of January, 1834, to 31st of December, 1846—(continued)

PERIOD	G A L C U T T A.		MAJABAR AND CANARA		CUTCH AND SINDH		Ports Subordinate to Bombay		ALL OTHER QUARTERS	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
1 Jan to 30 April 1834	number	rupees	number	rupees	number	rupees	number	rupees	number	rupees
1834-35	87,092	12,800	32,968	6,733	111,328	17,389	15,508	2,725		
1835-36			3,043,888	46,001	2,043,888	46,001	18,434	3,145		
1836-37	39,364	3,250	1,07,492	14,490	14,490	14,490	82,781	1,157		
1837-38	21,700	10,835	1,3,255	17,269	8,487	8,290	23,965	2,618	10,646	1,031
1838-39	68,313	1,649	13,732	1,700	46,181	2,397	9,960	1,066	4,717	342
1839-40			50,838	7,655	1,1,541	1,395	13,229	1,410	44,548	9,110
1840-41	1,57,117	23,10	21,972	2,9	3,1,192	4,010	1,1,3	150	40,765	4,764
1841-1.			6,244	436	3,29	313				
1842-43			26, *	21	7,774	873	2,97	460		
1843-44			7,510	890	1,247	160	738	5	5,9	604
1844-45	9,97,058	32,139	23,367	2,980	2,147	272				
1845-46	1,14,434	1,36,446	33,026	4,313	8,400	796	4,607	68	37,505	2,566
1 May to 31 Dec. 1846	4,1,118	4,332								
Total lbs	23,76,943		9,03,617		1,14,40		14,778		1,90,507	
Total cwts	53,009		8,868		1,113		1,023		1,110	
Total cads es	3,247	2,81,060	1,123	1,21,650	23	24,686	14	15,911	166	19,417
Average of 13 years	253	21,97	83	1,63	21	1,69	14	1,324	13	1,104

## GRAND TOTAL.

PERIOD	Pounds	Hundred Wt	Candies	Average Value per Candy	Value
	number	number	number	rupees	rupees
1st Jan to 30th April 1834	3,15,86,934	2,84,023	40,839	143.33	68,74,839
1834	6,4,83,644	2,7,423	18,432	130.20	1,90,0,307
1835	7,85,18,724	7,01,062	1,00,154	1,363	1,3,89,18
1836	11,34,96,081	10,31,219	1,47,377	120	1,8,7,778
1837	9,44,15,114	8,70,948	1,31,292	11.37	1,39,0,711
1838	10,14,9,618	9,09,158	1,29,451	119.92	1,43,20,549
1839	9,33,30,106	8,33,309	1,10,014	122.20	1,46,47,718
1840	12,7,16,094	11,76,942	1,68,005	110.13	1,40,14,438
1841	16,10,46,110	14,87,228	2,05,398	105.50	2,16,79,410
1842	14,78,11,831	13,18,526	1,88,820	100.99	1,89,28,265
1843	17,14,53,726	17,30,827	2,38,021	96.29	2,16,8,330
1844	13,17,8,401	11,19,843	1,71,406	89.35	1,51,16,144
1845	19,26,20,396	17,40,194	1,61,218	83.18	1,3,07,263
1st May to 31st Dec 1846	6,72,96,967	6,90,435	85,770	79.35	68,08,511
Total lbs	1,32,41,45,222				
Total cwts		1,36,15,869			
Total candies		10,47,351	10,45,061	109.64	21,32,55,923
Average of 13 years	11,73,03,764	10,47,351	1,44,622		1,64,04,202

Note.—The weights furnished in the Statement were compiled on the manifest of the vessels in which the cotton was exported down to the year 1842-43, since which time they have been taken from the export registers which give the weight declared by exporters on their export notes.

## STATEMENT of the Value of the Export Cotton Trade of the Port of Tuticorin (within the Madras Presidency), compiled from the Official Records furnished from the Madras Custom-House

PERIOD	Great Britain	Foreign Europe	China	All other Quarters	TOTAL	Value	REMARKS
	rupees	rupees.	rupees	rupees.	rupees	pees	
1837-38	28,308			13,594	41,902	2,726	To Bombay these returns are added and from the export trade of Tuticorin as they enter a second time into the general export statement from Bombay
1838-39	45,779			32,970	78,749		
1839-40	1,18,547			8,679	1,27,226	5,400	
1836-37	69,74		31,502		1,12,244	2,68,894	
1837-38	70,060			5,169	75,229	949	
1838-39	32,107				3,80,60	1,08,845	
1839-40	3,40,113	40,658		426	2,53,008	1,103	
1840-41	1,57,39		849, 0		1,51,518		
1841-42	7,44,216	47,268	3,69,492	788	4,40,189		
1842-43	72,928		1,0,309		3,0,09		
1843-44	1,42,518		14,02,861	388	15,46,790		
1845-46	77,468		9,72,642	14,630	6,64,49	11,524	
18 4 2 2 0	87,048	30,59,490	44,2,1	80,63,889			

Note.—The value of the export from Tuticorin has been taken from the Madras Custom-House. The average annual value in the statement of the Madras exports affords a basis for an estimate of the quantity in this case inasmuch as a good deal of the cotton shipped from Tuticorin is of a quality inferior to the quality of the cotton shipped from Bombay. If 60 rupees be assumed as the probable average cost the quantity exported in the 13 years of this statement will be about 51,481 Madras candies.

GENERAL Statistics of the Import Cotton Trade of Bombay, from the 1st of January, 1834, to 31st of December, 1846, compiled from the Official Records of the Bombay Custom House

IMPORTS

PERIOD	GUZERAT		CONKUN	
	Quantity	Value	Quantity	Value
	lbs	rupees	lbs	rupees
1 Jan to 30 April, 1834	2,251,434	29,800 65	61,77,619	5,56,865
1834-3	74 05	1,10 731	1,83,77,548	23,93,741
1835-36	9 4,904	13 12 30	2,33,14,297	84,18 79
1836-37	7,43,12,337	91 7 35	3,14 7,937	24,79 00
1837-38	7,44,43,998	1,01 17,464	1,68 18,401	26 1 391
1838-39	6,03 18,123	21 83,78	3 03 185	65 01 881
1839-40	2,07,06 10	3 6 918	3,00 04,450	25 11 377
1840-41	9,66 00 004	1,21,51,584	4 25 11 449	56 08 407
1841-42	5 8 40 00	4 03,440	5 13 45 164	64 78 338
1842-43	0 6, 34 16	80 7 425	4 60 76,711	37 13 0
1843-44	7 18 3 107	92 7 9 65	4 01 15,810	49 93 27
1844-45	0 48 46 53	7 03 13	2 70 06 430	22 19 02
1845-46	7 11 5 244	4, 932	2,29 28,719	22 13,870
1 May to 31 Dec 1846	2,50 41 167	25,90 888	84 17 961	8 35 281
Total lbs	77 83 46,328		39 50 26,536	
Total value	69 44 548		36 70 776	
Total candies	5 96,738	10 12,87 486	5 10 111	40 82 271
Average of thirteen years	76,360	77 91 345	30 239	28 20 944

GENERAL Imports of Bombay, &c — (continued)

PERIOD	MALABAR AND CANARA		CUTCH AND SCINDE		ALL OTHER QUARTERS	
	Quantity	Value	Quantity	Value	Quantity	Value
	lbs	rupees	lbs	rupees	lbs	rupees
1 Jan to 30 April 1834	16 20 528	2 6 342	47 8 0	4 03	60,208	5 674
1834-35	7 2 46 016	9 53 270	1 12 309	1 10 233		
1835-36	13 36 6 14	15 96 737	3 08 198	1 16 438	5,35 080	77 257
1837-37	11 16 1,142	15 69 115	44 34 216	6 41 338	6,15 580	50 086
1837-38	11 51 471	1 7 185	56 76 168	7 66 670	1 3 098	1 897
1838-39	84 08 383	13 11 708	22 42 313	3 04 062	47 876	9 125
1839-40	52 92 462	7 48 411	19 63 315	1 37 599	4 1 168	7 13
1840-41	15 27 97	1 30 085	3 02 1 883	13 29 445	23 760	2 339
1841-42	17 09 6 6	20 34 967	34 2 5	4 7 079		
1842-43	17 83 461	17 11 250	47 1 119	5 54 74	88,312	2 980
1843-44	20 89 284	24 54 6 4	15 07 719	10 16 688	37 246	4 211
1844-45	1 36 6 11	13 42 209	1 10 65 6	18 30 208	1 610	290
1845-46	2 30 42 12	18 42 33	6 0525			
1 May to 31 Dec 1846	66 51 3,36	6 88 168	30 87 763	3 86 42		
To all lbs	15 18 09 583		7 01 60 765		14 34 757	
Total value	13 6 46		6 26 488		12 810	
Total candies	1 97 749	1 84 76,996	89 458	86,58,313	1,830	1 95,945
Average of thirteen years	14 504	14 21 276	6 884	6 66 094	141	15 073

GRAND TOTAL of Cotton Imported into Bombay

PERIOD	Quantity			Average Value per Candy	Value
	lbs	cwts	cand ea		
1 January to 30 April 1834	2,603 822	6 372	20 429	38 10	37 61 129
1834-45	2 4 90 144	4 8 271	68 7 7	97 68	62,74 4 2
1835-36	7 51 4 659	6 73 049	96 434	111 43	1 07 22 115
1837-37	1 2 66 032	10 7 018	136 717	101 71	1 54 06 074
1838-38	10 53 521	8 84 407	1 20 344	109	1 37 4 347
1839-39	10 83 56 060	1 07 035	1 38 269	118 45	1 52 70 863
1840-40	6 50 4 413	5 22 352	76 055	106	80 61 542
1840-41	16 50 4 43	14 8 792	2 11 0	110 86	2,34 10 6 3
1841-42	14 01 8 151	11 04 805	1 66 491	96 76	1 74 31 60
1842-43	12 04 4 11	12 09 730	1 2 19	117 65	1 36 44 422
1843-44	14 7 149	14 20 130	1 89 613	37 73	1 84 32 6 0
1844-45	11 0 1 50	10 3 4 0	147 92	34 39	1 36 02 025
1845-46	11 36 8 7 3	10 15 1	1 13 266	80 22	1 17 1 108
1846-46	1 30 17 97	7 30 1 8	53 713	9 45	34 4 8 9
Total	1 40 1 72 2 8	1 25 15 668	1 47 361	100 22	17 92 00 011
Average of 13 years	10 2 22 692	1 04 750	1 37 337		1 27 81 622

These figures are taken from the official records of the Custom House at Bombay, and are compiled from the import registers at the Custom House which contain the details of the imports.

The figures in the list of prices are compiled from the prices published in the Price Currents of the place and are given in the list of prices furnished periodically by the Chamber of Commerce to the Collector.

The figures in the list of prices are given in the list of prices furnished periodically by the Chamber of Commerce to the Collector. It will be observed that the correct prices for the better qualities of the several descriptions of cotton and the duties on about 6 per cent should be made in order to arrive at a correct estimate of the actual value of the import cotton trade of this port.

## GENERAL Statement of the Export Cotton Trade of India from 1833—34 to 1845—46

PERIOD	BOMBAY		CALCUTTA.		MADRAS	
	Quantity	Value	Quantity	Value	Quantity	Value.
1833—34	<i>cwts.</i>	<i>rupees.</i>	<i>cwts.</i>	<i>rupees.</i>	<i>cwts.</i>	<i>rupees.</i>
1 Jan to 30 April 1834	2,92,028	64 74 839	1 05 400	14,34,501	15,491	1,99,695
1834—35	5,78,425	1 20 07 237	2,47 465	31 86,139	30 214	6 41 32
1835—36	7 01 952	1 73 89 218	4 26 256	63,63 777	1,65 234	25 98 488
1836—37	10,31 719	1 76,77 778	3 10 254	38 39 237	1,97 133	36,08 645
1837—38	3,70,046	1 89 56 341	1,49 198	18 61 165	30 884	6,16 211
1838—39	9 06,158	1 45,30 500	1 71 41	22 21 889	83 558	14 69,854
1839—40	8,23,306	1 46,47 718	1 37 608	18,27 43	1 36,006	22,57 185
1840—41	11 76 048	1 90 14 485	1 35,783	19 37 237	1 65 619	15 77 549
1841—42	14,37 733	2 16 75 410	81 060	12,05,347	1,59 718	30 04 115
1842—43	13,16 939	1 89 36 928	1 98,230	17 16,982	2 16 178	28 15,460
1843—44	13 30 837	2 10 58 233	1 48 909	20 55,140	1 14 848	14 63,239
1844—45	11 95,847	1 33 16 846	1 48,314	20 16 48	1,55,594	21 19 841
1845—46	11 50 181	1 36 07 903	68,528	8,33 164	59 272	7 14 183
1 May to 31 Dec. 1846	6,00 485	68,08,811				
Total	1 36 15 569	21,82,55 523	32 64,778	3 04 19 967	15,29 143	2,28,11 654
Annual average	10,47,351	1,04 04 308	1 74,175	23 39,907	1 17 686	17 64 742

GENERAL Statement of the Export Cotton Trade of India from 1833—34 to 1845—46—  
(continued).

PERIOD	TUTICORIN		TOTAL OF ALL INDIA	
	Quantity	Value	Quantity	Value
1833—34	<i>cwts.</i>	<i>rupees.</i>	<i>cwts.</i>	<i>rupees.</i>
1 Jan to 30 April 1834	3,116	41,403	1 21 076	10, 1 099
1834—35	2,456	39 970	5,8 023	38 74 832
1835—36	9 500	1 27 023	13 06,782	2,63 79 046
1836—37	8 357	1 12 254	15 5 463	2,52 7 964
1837—38	8,061	76,090	10,62 389	1 65 13 807
1838—39	2 065	28 007	11 03 542	1 60 40 242
1839—40	28 331	3 80 769	11 30 451	1 02 13 215
1840—41	16,835	2 63,108	14 30 279	2 27 71 319
1841—42	58,891	7 11 518	17 77 111	5,63 71 390
1842—43	28,745	4 40 108	16,98,152	2 39 03 137
1843—44	42,473	5 70 990	18,35,467	2 50 57 693
1844—45	1 15 013	13,45 190	16 82,164	2 10 00 730
1845—46	49 401	6,64 730	13,28 496	1 39 82 060
1 May to Dec 1846			6,90 453	68,08 811
Total	3 76,944	50 65 889	1 7 85 914	37 15,53,433
Annual average	29 694	2,89 684	13,68,146	2 08 67 736

## ABSTRACT

PORT	PERIOD OF THIRTEEN YEARS	QUANTITY		VALUE	
		TOTAL.	Annual Average	TOTAL.	Annual Average
Bombay	1 January 1834 to 31 December 1846	<i>cwts.</i>	<i>cwts.</i>	<i>rupees.</i>	<i>rupees.</i>
Calcutta	1 May 1833, to 30 April 1846	1 36 15 509	10 4 351	21 82,55 23	1 04 04 309
Madras		21 64 278	1 74 173	3,01 14 967	23 39 907
Tuticorin		15 89 143	1 1, 126	2 28,11 654	17 54 43
		3 76,924	24 934	59 52 889	3,87 084
Grand total of thirteen years for all India		1 77 85 914		27 15,53 433	
Annual average of quantity and value of thirteen years for all India			13 68,146		3 08 67,736

STATEMENT showing the Extent of Cotton Cultivation in the Surat Collectorate for the Years undermentioned, its Proportion to other Cultivation, its Assessment, and its Average Produce from a given Quantity of Land

Y E A R S	Parganahas	Number of Villages	Extent of Cotton Cultivation		Rate of Assessment per Beega on Lands cultivated with Cotton			Rate of Assessment per Beega on Lands cultivated with other Produce than Cotton			Average Produce of Cotton obtained from Beega	Average Number of Beegas required to produce a Surat Candy of 784 lbs of Clean Cotton	Average Government Assessment thereon	Superficial Extent of the Beega.	Amount of Remission granted on Cotton Lands.	Total Amount of Remissions granted on all Descriptions of Lands						
			in Beegas	in Beegas.	Highest.	Lowest	Average	Highest.	Lowest.	Average												
																	mds score					
1834-35	9	484	49,221	4 18	1,81,978	9 9	6 10	0 2	0 0	3 1	1 11	8 8	0 2	6 0	3 4	8	4 39½	14 8 18	44 0 5	sq. ft. 4 220 0 3	5 481 5 4	
1835-36	9	485½	49,916	1 15	1,80,031	15 4	6 10	0 2	6 0	3 2	3	8 8	0 2	6 0	3 5	7	4 37½	13 6 0	41 11 1		2,345 11 8	
1836-37	9	485½	3,877	0 15	1,92,121	2 17	6 10	0 2	6 0	3 2	1	8 8	0 2	6 0	3 4	11	5 9	13 13 0	40 0 3		14,169 0 4	
1837-38	9	485½	09,845	0 1	1,79,131	2 15	6 10	0 2	6 0	3 1	7	8 8	0 2	6 0	3 4	8	4 37½	13 11 2	41 15 7		10,115 1 7	
1839-39	9	435½	61,589	19 18	1,81,917	13 1	6 0	0 2	6 0	3 0	1	7 10	0 2	0 0	3 3	4	3 15	22 16 1	71 8 0		13,858 5 0	2,06,552 0 2
1839-40	9	486½	51,897	1 2	2,05,363	4 16	5 12	0 2	0 0	2 13	0	7 10	0 2	0 0	3 1	5	5 10½	12 17 2	37 1 8		29 615 9	4,614 13 9
1840-41	9	486½	46,02	12 11	2,09,388	10 0	5 12	0 2	0 0	3 14	3	7 10	0 2	0 0	3 1	8	4 20½	14 7 2	44 7 10		9 900 1 5	
1841-42	9	486½	71,242	16 3	1,91,028	10 11	5 12	0 2	0 0	2 13	8	7 10	0 2	0 0	3 1	10	4 23½	10 12 16	29 1 6			967 8 5
1842-43	9	486½	67,439	7 11	2,17,109	8 3	5 12	0 2	0 0	2 13	9	7 10	0 2	0 0	3 1	8	4 32	12 7 7	28 2 8			6,492 4 6
1843-44	9	486½	26,242	15 15	2,31,632	17 0	5 12	0 2	0 0	2 13	9	7 10	0 2	0 0	3 1	8	4 21½	11 14 0	23 10 6			1,665 1 2
1844-45	9	486½	65,533	1 15	1,79,066	15 15	5 12	0 2	0 0	2 14	0	7 10	0 2	0 0	3 2	3	5 2½	12 18 12	27 4 4			3,724 2 1
1845-46	9	487	57,175	18 10	1,75,592	3 2	5 12	0 2	0 0	2 13	8	7 10	0 2	0 0	3 1	11	4 29½	14 3 2	40 7 7			15,592 14 10

NOTE.—Remissions are usually granted for loss on account of injury to the whole crop of each cultivator's khata or holding and the remission on account of failure of cotton crops alone cannot be shown separately

Surat Collector & Camp, Mota 18th of February 1847

(Signed)

F STEWART COLLECTOR

CULTIVATION AND SUPPLY OF COTTON

STATEMENT showing the Annual Produce of Five Acres of Soil of Average Description, the Assessment thereon, and the Average Market Value of that Produce, in an Ordinary Season, in the Sholapoor Collectorate.

DESCRIPTION OF PRODUCE	Average Annual Produce of Five Acres of Ordinary Soil	Government Assessment on Five Acres being Best Annae per Acre	Average Market Value for Five Acres to the Cultivator	OBSERVATIONS OR REMARKS.
Cotton	10 mounds weight		25 0 0	Each mound of forty seers, each seer of seventy eight Company's rupees and an extra assessment is imposed on English land in some of the districts at two rupees per acre. In others on the well according to capability with regard to the supply of water. Calculating three fifths of the expenses of cultivation it leaves two fifths from which the ryot has to pay his dues to government.
Sugar	60 "		250 0 0	
Peppers red (all the)	30 "		90 0 0	
Turmeric	36 "		191 0 0	
Bhoney moog	40 "		28 0 0	
B jute	10 "		30 0 0	
Toar	15 "		32 0 0	
Joary	20 "		32 0 0	
Alsea of Jurvas	4 "	2 rupees and 8 annas	14 0 0	
Wheat (1st sort)	70 "		25 0 0	
Grain	124 "		31 0 0	Grown with Bajree  Seldom grown alone
M (keea or Mut)	3 "		6 0 0	
Toel or Sesamum	7 1/2 "		39 0 0	
Kazala-Jeel	5 "		12 0 0	
Moog	5 "		12 0 0	
Coarced.	7 "		17 0 0	
Rice	20 "		40 0 0	
Brash	10 "		15 0 0	
Herandee	10 "		28 0 0	
Wheat (2nd sort)	30 "		26 0 0	

STATEMENT showing the Extent of the Cotton Cultivation in the Sholapoor Collectorate, for the Years undermentioned, its Proportion to the other Cultivation, its Assessment, and its Average Produce from a given Quantity of Land

YEARS	2 Z lbs.	Number of Cultivators	Extent of Cotton Cultivation in Acres	Extent of other Cultivation in Acres	Rate of Assessment per Acre on Lands cultivated with Cotton			Rate of Assessment per Acre on Lands cultivated with other Produce than Cotton		Average Produce of Cotton obtained from an Acre	Average Number of Acres required to produce a Surat Candy of 784 lbs of Clean Cotton	Average Government Assessment thereon	Superficial Extent of the Acre	Amount of Remissions Granted on Cotton Land
					Highest	Lowest	Average	Highest	Lowest					
1839-39	Sholapoor	537	2,569	4,06,466	1 rupee of 16 annas	6 annas	10 annas	1 anna	8 annas	100 lbs of selected cotton clean cotton	5 acres per seer and 100 lbs of clean cotton		480 square fads	1,825 12 6
1835-36		670	3,710	6,19,690									3,08 12 0	
1836-37		635	3,929	6,33,900									1,154 15 7	
1837-38		615	3,184	7,77,614									29 14 2 8	
1838-39		663	3,441	8,23,177									76,605 4 6	
1839-40		714	3,681	11,29,592									9,210 13 0	
1840-41		784	3,914	12,16,500										
1841-42		778	4,451	13,22,111										
1842-43		771	4,115	16,20,060									525 0 0	
1843-44		809	4,807	14,44,114									300 0 0	
1844-45		901	5,816	15,17,448									1,317 5 3	
1845-46		961	5,416	17,02,081									2,224 12 5	

NOTE.—The rates quoted in columns 6 to 11 are those introduced into the collectorate by the new revenue survey and a constant village committee in 1835-39 and re-enacted in 1844-45 previous to that period the rates on land varied from a half anna to two rupees per Acre but it is difficult to say what the rates really were. There is no difference at the assessment of lands grown with cotton or other produce. The rates throughout the village are fixed according to the quality of the soil; but the very inferior soils will not produce cotton and are never sown with it.

Sholapoor Collector's Camp at Varmallo 26th of February 1847

(Signed) G COLES, Collector

STATEMENT showing the Extent of Cotton Cultivation in the Branch Collectorate, for the Years undermentioned, its Proportion to other Cultivation, its Assessment, and its Average Produce from a given Quantity of Land

YEARS	Number of Villages	Extent of Cultivation in Beegas		Rate of Assessment per Beega on Land cultivated with Cotton			Rate of Assessment For Beega on Land cultivated with other Products			Average Produce of Cotton obtained from one Beega.	Average Number of Beegas required to produce a Surat Candy of 744 lbs of Cleaned Cotton	Average Government Assessment in Beega and sufficient to yield a Candy of Cleaned Cotton	Paper fees & Extent of the Beega	Amount of Remissions granted to Cotton Lands		
		Cotton	Other Product	Highest	Lowest	Average	Highest	Lowest	Average							
1834-35	350	1 98 012	3 72 078							The Returns for 1837-38 1838-39 and 1839-40 are taken from the actual papers of forty five villages (of different classes) in each year  Beegas Wuzass Kuppas 1514 seers equal to cleaned cotton 4 1/2 lbs } 16 14 or 30 } (At the average of Rs 4 8 2) Rs 72 12 9  Kuppas 48 seers r cotton 13 lbs } 52 5 } (At the average of Rs 3 11) Rs 81 0 4 Kuppas 134 seers or cotton 4 1/2 lbs } 18 16 } (At the average of Rs 3 5 0) Rs 62 12 4  The Returns of 1843-44 1844-45, and 1845-46 are taken from the new Begottee Settlement  2 1/2 dhurces of Kuppas, or 120 seers (48 seers equal to 1 dhur equal to 120 seers Kuppas average year equal to 40 seers, or 39 1/2 lbs } At the average rate quoted viz 20 1/2 lbs to 1 of Rs 2 0 10 per beega, it requires 20 beegas in a year to yield a candy of cleaned cotton } And at the average assessment price of Rs 2 0 10 per beega, it requires 40 beegas to meet upon a candy of cotton equal to 1 of Rs 45 10 4	9477 yds These cannot be 7 1/2 of 94 shown separately for inches - cotton and other lands (Mr Williams) The following abstract shows the entire remissions and balances written off since 1840 -  Balances outstanding on 1st Aug 1840 Rs 5 10 777 14 4  Remissions given - Rs a p In 1840-41 1,28,606 0 3 1841-42 2 446 1 0 1842-43 1843-44 6,465 10 11 1844-45 81,617 2 7 1845-46 4 34 328 11 2 TOTAL 6 29 563 10 2  Balances written off - Rs a p In 1840-41 1,36,640 8 3 1841-42 1 1 014 8 3 1842-43 2,01 942 1 6 1843-44 1 00 08 0 10 1844-45 1,25,543 9 7 1845-46 17 959 10 7 TOTAL 8 19 608 0 0 Balance outstanding on 1st Aug 1840 1 02 843 4 6 GRAND TOTAL of Remission and Balance since 1840 Rs 16,41,054 14 8					
1835-36		2 74,609	3 08 232													
1837-38		2,42,086	3 42,223													
1837-38		2,81 067	3,38 338	7 0 8	2 9 2	4 0 2	2 13 10	1 12 10	2 8 11							
1838-39		2 32 640	2 64,802	8 1 6	0 10 4	1 8 11	2 4 6	0 2 11	1 2 0							
1839-40		3,07,391	3 10,804	4 11 0	2 9 11	3 5 5	3 15 8	1 18 2	2 7 5							
1840-41		2,69 182	3 21 033			3 9 4 6			3) 6 2 4							
1841-42		2 59,429	3 20 283			3 1 6			2 0 8							
1842-43		2,68 760	3 72 250													
1843-44		2 17 240	4 08 316													
1844-45		2,72,480	3,46,523	6 0 0	1 1 1	2 0 11	8 0 0	1 1 1	1 2 6 11							
1845-46		2 77 043	3 33 898													

CULTIVATION AND SUPPLY OF COTTON

STATEMENT showing the principal Grains, their Average Annual Produce of 100 Beegas of Land, Government Assessment on the same, and the Average Market Value to the Cultivator in the Collectorate of Surat.

DESCRIPTION OF PRODUCE	Average Annual Produce of 100 Beegas of Average Ordinancy	Government Assessment on 100 Beegas	Average Market Value to the Cultivators	OBSERVATIONS
	ms a p	rs a p	rs a p	
Kuppus	631 0	805 6 7	640 5 4	Produced in gorat land
Bajree and kuthol	974 0	397 5 0	622 11 6	
Kuthol	620 0	268 9 9	497 4 0	
Jowarree and kuthol	898 0	315 9 10	546 3 8	
Bhat or rice grown in keearoo land 3,500 After rice crop, wall kuthol &c produced 645	4143 0	800 0 0	1,684 1 6	Ditto, in keearoo land.
Bhat or rice in jeerart land	1 500 0	250 0 0	502 8 0	Ditto, in jeerart land
Kodra	1 510 0	258 12 0	424 0 4	Ditto, in gorat land
Mart	627 0	350 0 0	418 8 0	
Toone	608 0	254 10 7	490 13 0	
Tull	401 0	282 3 6	512 3 6	
Wheat and mustard	730 0	285 0 8	866 1 0	
Nagine	908 0	325 15 0	368 8 0	
Govvar	998 0	350 0 0	662 8 0	
Urrad	584 0	328 13 9	375 0 0	
Grain and awells	453 0	331 4 0	370 0 0	
Kuppus and tull	427 0	331 4 0	459 6 0	
Tull and four	430 0	327 18 4	574 2 8	
Tobacco	1 577 20	544 10 8	3,417 8 0	Ditto in gorat gubban land
Sugar cane	6,987 20	706 6 9	7 228 5 4	Ditto, in kooder baget, or land irrigated by means of wells.

NOTE.—All the other crops or produce on which no observation is made can be produced in any soil

The cost of production of cotton to the ryots is estimated as follows, supposing thirteen beegas of average zeraet land will produce one Surat candy of clean cotton, or 784 lbs

Average government assessment on thirteen beegas of land	Rs a p
Ploughing before sowing	39 0 0
Cotton seeds or kuppis, one maund and twenty five seers	6 8 0
Hire for sowing ditto	0 12 0
Hire for ploughing, called kulpee	3 4 0
Weeding	3 4 0
Gathering the cotton	6 8 0
Digging out the roots after the gathering	7 0 0
	3 4 0
	<hr/>
Rupees	69 8 0

Should the above land be cultivated, as is generally the case by the ryots, by means of his own bullocks, and the ground being weeded, and the cotton picked by the members of his family, of course the profits on the produce are much greater

Allowing that thirteen beegas of land would yield about sixty-three maunds of kuppis which can be sold for eighty-one rupees four annas, after deducting the foregoing amount of expense, sixty-nine rupees eight annas, there remains a net profit of eleven rupees twelve annas to the cultivator

The price paid by merchants, and the charge incurred by them for the sixty-six maunds of kuppis, the produce of thirteen beegas, are estimated as follows —

Value paid for the kuppis	Rs a p
Hire for separating seed from cotton	81 4 0
Screwing, including gunning, pats, ropes, binding, cart hire, dala's brokerage, &c.	10 0 0
	5 4 0
	<hr/>
Deducting price of kuppuses or cotton seed	96 8 0
	17 8 0

Leaving a net sum of rupees 79 0 0 as the expense incurred by merchants for one candy of clean cotton, ready to be shipped on board the boat.



" There are seventeen places enumerated below, where screws are fixed, and temporary sheds erected for cleaning cotton but the chief places where sales of cotton take place are the city of Surat and town of Randier

1 Oolpor	7 Kulargam	13 Kupletha
2 Randier	8 Barracha	14 Surbhon
3 Nundrooe	9 Sunnia	15 Bardolee
4 Morthan	10 Purout	16 Hansapor
5 Ucharun	11 Pandusoa	17 City of Surat
6 Kudrama	12 Eklera	

" The parties who establish 'stays,' or warehouses, generally purchase cotton from the ryots just as it is picked, they then separate the seeds by means of churkas, and sell it to the cotton brokers, who purchase for the merchants. The enhancement in the price is not considered to be very great during the transfer, probably not more than two or three rupees a candy.

" In reply to your second letter, dated 23rd ultimo, on the same subject, I have the honour to state that I cannot suggest any mode of cheapening the production of cotton in this district, the most obvious plan would be by a reduction in the assessment of the land cultivated for cotton but this I am not prepared to recommend, as I do not consider the rates too high on the land in which it is generally produced, this description of land, when not cultivated with cotton, pays readily the assessment from the grain it produces, and it should be borne in mind that a great reduction has already been made in the rate of assessment per beega on land generally throughout this zillah, and that the cultivators have been relieved from many heavy payments on account of veeras and other cesses.

" I am informed that the cotton generally would produce a higher price in Bombay and the English market, and the cultivators would consequently receive greater remuneration, were it not that they deteriorate its quality in many ways to add to its weight, such as exposing it to the night dew, which injures its colour and the other modes adopted by them for this purpose render it expensive and difficult to clean. If the cotton crop could be purchased by merchants or their agents while standing, and picked and the seed separated under careful superintendence, the best results might be anticipated.

" I may add, that a change in the seed used would probably lead to an improvement in the produce, but this point has already, I do not doubt, come under the consideration of the committee — *Report on Indian Cotton*

#### MISCELLANEOUS STATISTICS OF THE PRODUCTS, IMPORTS, AND EXPORTS OF COTTON WOOL

It is remarkable that Hindoostan was, for centuries previous to other countries, the region which we find celebrated for both the growth and manufacture of cotton. Herodotus alludes to woven cloth made of cotton wool, constituting the vestments worn by the Hindoos, and, from being generally worn, its growth and manufacture was probably common for many centuries before the time of Herodotus, who wrote about 445 years before the Christian era. In the "Peryplus of the Erythrean Sea" (*Peryplus maris Erythreae*), written by Arrian, we have an account of a trade in Indian calicoes, and both Strabo and Pliny also allude to those cotton fabrics, and to their having extended to Persia and Upper Egypt. Arrian navigated and traded in the Indian seas.

While cotton manufactures flourished for so many ages in Hindoostan, it is

remarkable that neither cotton wool was cultivated nor manufactured into cloth in China until about the thirteenth century, and that its manufacture in Europe and America has been comparatively of very recent date

From the meagre accounts we possess of the early manufactures of Great Britain, the period at which cotton wool was first imported is uncertain. The first importations were from the Levant

Anderson enumerates several statutes, &c, respecting wool, and woollen fabrics, &c, in the reign of Edward III, and referring to the stipulations made by that prince, with regard to the trading towns of Scotland, in 1357, Glasgow is not named, while Lanark and Peebles are considered important places. The society of merchants of Saint Thomas à Becket were, about the year 1360, exporters of considerable quantities of English-made woollen cloths. Coarse woollens for domestic wear appear to have been woven in England for centuries previous to this period. For Judge Hale (Primitive Origin of Mankind) says, speaking of ancient guilds, "that they were erected in England for the woollen manufactures, as at Lincoln, York, Oxford, &c., that in the times of Henry II and Richard I this kingdom greatly flourished in that art, that by the troublesome wars in the times of John, Henry III, Edward I, and Edward II, this manufacture was wholly lost, and all our trade ran out in wools, woolfels, and leather, that by the wise and peaceable times of Edward III, he regained that art luther again after 100 years discontinuance. Scotland confined its trade for a very long period to its boroughs"

Spanish wool was used early in making English broad cloth. The Weavers' Company obtained their charter, without date, from Henry II, supposed to be in 1172, they existed, however, as a company in his grandfather's time, Henry I, who, according to Stow, gave them a monopoly, but it was stipulated, "that if any cloth were found to be made of Spanish wool mixed with English wool, the Mayor of London should see it burnt." In 1197, the dimensions of English broad cloth was fixed by statute, and we find almost in every succeeding reign, laws for regulating the wool trade and the woollen manufactures. By the last statute of the reign of Edward III, Irish woollen cloth, called "frise," is declared of great antiquity, and this cloth is exempted from the length and breadth required for other cloths by the statute. About 1390, Kendal and Westmoreland cloths, called "cogg-ware," are mentioned in a statute, and in another, the following year, the plain cloths of Somerset, Dorset, Bristol, and Gloucester, are mentioned. Guildford cloths are soon after noticed. Glasgow is first, in 1430, mentioned as a place "where commerce was begun," and, in 1540, a law was passed in Scotland for regulating woollen manufactures. Henry III, for a fine of ten marks, gave a charter to Liverpool, then a small fishing village, in 1229. It was long after before it became a port of any importance.

Although woven manufactures of sheep's wool became early important, those of cotton wool are of recent origin in Great Britain and in the North of Ireland, yet, in 1641, Mr Lewis Roberts says, in his "Map of Commerce,"—"The town of Manchester buys the linen yarn of the Irish in great quantities, and weaving it, returns the same again to Ireland to sell. Neither does her industry rest here, for they buy cotton wool in London, that comes from Cyprus, and Smyrna, and work the same into fustians, vermillions, dimities, &c., which they return again to London, where they are sold, and from thence, not seldom, are sent into such foreign ports where the first materials may be more easily had for their manufactures." This passage is curious, and we may presume that the cotton manufactures of Manchester began during the last years of the sixteenth, or very early in the seventeenth century, though their great development can only be dated from the year 1773.

The Manchester cotton and cotton velvets which are at first mentioned were, however, woollen imitations of those cotton goods, which were imported from abroad.

Mr Munn, in 1624, gives an account of cottons being imported, the East India Company exporting, at an average, 50,000 pieces per annum, but our official accounts are for a long period deficient, and the rapid extension and chief production of the various manufactures of cotton, in Lancashire, Lanarkshire, and even in the North of Ireland, and also in the New England States and Switzerland, constitute the most extraordinary branch of industry which the world affords. France, Germany, and Belgium followed next in the order of cotton manufacturing countries. Austria has also considerable fabrics. Catalonia manufactures some, and by contraband, *the safety valve of prohibition*, imports abundant cotton fabrics into Spain. Russia has established several factories, under a pernicious system. Attempts to manufacture cotton have been making in Holland, Denmark, Sweden, Naples, and Portugal.

A great question for the consideration of the people of these kingdoms, is involved in an inquiry, of almost vital importance to the employment and sustenance of, not only the greatest mass of the manufacturing population, but to the commerce of the empire, viz, *the sources from which, and the necessary quantities of, the raw material, is to be hereafter obtained.*

The greatest producing country of cotton wool, the United States of America, has become also a great manufacturing country (see our Report, Part XV, on the United States, for full details of cotton crops and of the cotton manufactures of the United States). And, we must in our inquiry and conclusions bear in mind, that all the above-named countries are now become competitors in the markets of the world for the raw material of cotton wool. The quantity of which produced in the southern climate of Europe, the two Sicilies, and Spain, need merely be mentioned as being of utter insignificance. America, Asia, and

Africa, are the countries upon which we must depend. Many parts of South America, and of the West India Islands, are admirably adapted by soil and climate for its cultivation. But with the exception of the Spanish West Indies, and parts of Brazil, the want of sufficient labour constitutes the great drawback on both abundant and cheap production. In Cuba and Porto Rico, sugar cultivation is more profitable than cotton. In Brazil, even with slave labour, agriculture energy is wanting.

The extensive fertile regions of the British empire, alone, might supply, not only the United Kingdom, but all the world, with cotton wool. The want of labour, and the consequent high cost of production in the British West Indies, constitutes the impediment, certainly not the climate, nor the soil. Guiana has probably as great an area of soil, genial to the growth of cotton wool, as the extent now under cultivation in the United States. But the labourers are wanting.

Africa, otherwise undoubtedly genial to the cultivation of cotton, is in too hopeless a state of barbarism to yield a supply, at least, not at an early period. Egypt has for some time exported cotton, but even under a compulsory system, the cultivation of cotton in Egypt will for a long period be comparatively limited.\*

With respect to Asia, the Celestial Empire demands a large supply from India, or other countries. Cochin China, Siam, and Borneo, are in too rude a condition to grow it in large quantities, although in the two former some is grown, and the soil and climate of the latter is admirably adapted for the growth of cotton. Asia Minor yields considerable quantities of cotton in the districts of Cassarah and Anapa, part of which is sent for shipment to Smyrna. and Cyprus still yields and exports small quantities of cotton. The Dutch East Indies yield some, and might yield much. Under Spain little productive industry can be hoped for in the Philippines, and the growth of cotton wool in those large and naturally fertile islands is trifling in quantity. Borneo, if we administer with judgment at Labuan, may in time yield a considerable supply of cotton. The south eastern parts of New Holland appear to be well adapted by climate and soil to yield excellent cotton in abundance,—but there are no labourers in the field, it may be said, no inhabitants. Malacca may also produce some.

It becomes, therefore, almost a policy of necessity to direct our views and

\* The Growth of Cotton in Egypt has been stated as follows —

YEARS	Quantity	YEARS	Quantity
1833—34	36 085 bags	1839—40	78,300 l. sps.
1834—35	58 948	1840—41	74 000
1835—36	113 000	1841—42	63 000
1836—37	172 000	1842—43	138 000
1837—38	80,000	1843—44	160 000 } est.
1838—39	91 000	1844—45	175,000 } mates

our labours chiefly to British India for a supply of the article which, to the United Kingdom, is the most important, next to that of food, which, in fact, more than any other article, has enabled a great portion of the people to pay for food

The early accounts of the imports of raw cotton wool are very meagre From the quantity of 1,976,350 lbs being imported, in 1697, and not more than 1,658,365 lbs, in 1749, and only 3,870,392 lbs, in 1764, and only 5,198,778 lbs, in 1781, the slow progress of the manufacture, until the jenny, mule, and spinning-frame came into full operation, is apparent

The following tables are given, the first by Mr Baines, the second by Malachy Postlethwaite (Commercial Dictionary), and the third from both and from official returns The tables which follow are all condensed from official statements —

TABLE I

Y E A R S	Raw Cotton Imported		Official Value of British Cotton Goods Exported	Y E A R S	Raw Cotton Imported		Official Value of British Cotton Goods Exported
	lbs	£			lbs	£	
1670	1,216,350	5,115	1730	1,545,479	33,24		
1701	1,845,868	53,453	1741	1,615,031	50,09		
1710	715,008	5,938	1751	2,95,010	48,980		
1720	1,222,805	16,400	1764	3,870,322	200,354		

TABLE II

Y E A R S	Cotton Imported		Cotton Exported		Cotton retained for Home Use	
	lbs	£	lbs	£	lbs	£
1715	1,132,288	48,570	1,021,418			
1744	1,182,873	132,765	1,760,108			
1745	1,464,23	71,123	1,360,351			
1746	2,764,964	3,273	2,201,529			
1747	2,231,869	29,438	2,107,431			
1718	4,500,066	294,717	4,512,249			
1749	1,658,365	310,958	1,227,379			

## EARLY IMPORTS OF AMERICAN COTTON FROM AMERICA INTO ENGLAND

COTTON is said to be indigenous in the Lower Mississippian regions, and it is said to have been used extensively in the western parts of South America, as a material for clothing, before the discovery of those regions by Europeans Our first accounts of it, as a staple article of commerce, is in St Domingo, before 1726, and in Surinam, before 1733 We find that "cotton patches" were common in Carolina about the end of the seventeenth century, and that there were exported from Jamaica 2000 bags of cotton in 1753, and, in 1768, to the United Kingdom, 2211 bags, 442,200 lbs, and to North America, 252 bags

The first import of cotton wool, the produce of the United States of America, was at Liverpool, on the 20th of January, 1785, of one bag from Charleston, February 17th, New York, one bag, July 21st, Philadelphia, three bags, November 17th, Philadelphia, nine bags Total, fourteen bags

1786—May 4th, from Charleston, two bags, June 21st, Charleston, four bags Total, six bags

TABLE III.—Account of the Imports and Exports of Cotton Wool, into and from Great Britain since 1697

YEARS	Imports	Exports.	YEARS	Imports	Exports
	lbs	lbs.		lbs.	lbs
1697	1 071 380		1799	3,2570 923	297 837
1750	1 845,872		1 50	31 44 605	843 154
1751	1 645,021		1751	26 46,675	353 143
1753	2 971,410		1752	34,00 497	1 485 665
1754	3 870,392		1 53	19 140 929	1 171 566
1 41	3 1 4, 3	97 758	1754	24 358 567	1 14 0
1 59	11 4 2 0 9	421 729	1795	26 401 240	1 133 7
1763	1,735 653	177 590	1796	32,120 527	194 62
1764	11 4 2 9 28	201 845	1797	23,551 371	609 038
1765	18 499 354	407 430	1 28	31 850 641	61 139
1 66	19 471 0 0	223 169	1 99	43 270 778	844 771
1767	23,259 498	1,073,391	1800	36,610,732	4 416,610
1768	0 467 136	833 148			

ACCOUNT of Imports into and Exports of Cotton Wool, &c, from Great Britain—  
(continued)

YEARS	Quantity of Cotton Wool imported	Official		Quantity of Cotton Wool taken for consumption	Value of Cotton Manufactures Exported	
		£	lbs		£	
					Official	Real or declared
1802	56,004 305	1 860 872	54 203,433	7 050 809		
1802	60 346, 490	3 730 180	56 615 120	7 6 4 303		
1803	53,81 744	1 901 033	52,731 331	7 681 444		
1804	61 86 709	1 648 367	61 364,159	6,716,775		
1805	50 692,106	804 42	54,275,163	6 524 656		
1806	58 178,343	651 967	57 5 4 416	10 489 049		
1807	72 2, 306	2,176,253	72 48 303	10 309 63		
1808	43 066,592	1 648 367	43 81 115	12 086,997		
1809	59 812 542	4 351 103	48 4 1 1 7	19 443 956		
1810	132 458,935	8,787 169	173 01 826	18 951 994		
1811	91 576 535	1 266,877	99 396 168	18,013, 149		
1812	63,0 36	1 440,912	63 383,014	16,317 090		
1813	50 976,909		50 59 300		Records destroyed by fire	
1814	60 6 0, 235	6 262,437	33 77 502	17 655,378	26 663 132	
1816	99 376,448	6 190 792	92 935 181	23 289 645	20,6 0 9 6	
1817	52 270 055	7 168 024	56,513 921	17 304 461	1 877 2 8	
1817	121 012 248	8 155 442	116,797 466	21 356,224	16,012,601	
1818	17 252,158	15 159 453	17 122 05	22 380 139	18 67 517	
1819	149 139 820	16,922,969	133 116,931	16,282,992	14,799 819	
1820	151 772 55	6 921 738	122 8 9 033	22 531 0 9	16 516,468	
1821	142 436 679	14 880 407	137 041 349	22 841 615	16,988,271	
1822	142 837 1 28	18,26 6	143 228 127	26,011 043	17 218 724	
1823	191 402,583	9,318,402	189 311 0 0	26,244 0	16,3 7 434	
1824	219,369 122	12 99 805	143 628 743	30,735 403	18 652,967	
1825	228 005 291	18,064 9 3	20 646,668	39 493,287	18,357 586	
1826	177 667 401	24 474 520	169,88 012	25 194 270	14 094,269	
1827	272,448 169	18,134 1 0	249 04 396	33 132 898	17 637 162	
1828	227 769 468	17,256 776	269 847 744	37,376 255	17 214 437	
1829	222 7 4 11	20 8 1 15	294 097 037	3 6 432	17 523 904	
1830	263 591 452	8 534 76	279 616 640	41 850 379	13,4, 6 664	
1831	288,074 453	22,379 535	2 3 249 6 28	39 2 7 073	7 267 794	
1832	295 822 325	19 027 40	259 414 4 38	36,3 255	1 396 393	
1833	301 756,437	1 394,892	293 642 970	49,337 910	18,440, 130	
1834	316,873 482	24 461 663	308,102 011	51 0 440	20 13 38	
1835	361 799 562	32 771 34	333 141 364	66 252, 478	24 125,304	
1836	406 086 037	31 3 263	363 784 282	86,8 8 448	24 023,358	
1837	407 286,183	30 722,031	368,448,033	91 110 90	29 577 132	
1838	80 850 277	30 644 409	455 030,735	64 112,298	24 117 726	
1839	389 376,559	36 38 228	452 940 77	67 017 024	24 858 777	
1840	359 868 010	36 73 270	268,142,742	73 4 251	24 668 618	
1841	447 592 335	37 733 335	437 042 421	69 798 131	23 499 4 3	
1842	531 710 856	45 951 802	473 6 6, 600	68 084 891	21 674 958	
1843	673 193,116	34 119 270	511 362 183	91 152 3 9	23,44 971	
1844	447 211 104	4 292 541	524 1 6, 692	91 936 3 4	23 803 545	
1845	7 100 190	4 116,884	6 116,3 16		20,118,293	
1846	407 748,168	46,530 704	461 816,304			
1847						
1848						
1849						
1850						

QUANTITIES of Wool and Cotton imported into the United Kingdom, distinguishing countries,—1831 to 1840 inclusive

C O U N T R I E S	1831	1832	1833	1834	1835	1837	1837	1838	1839	1840
Italy and the Italian Islands	lbs 3 640	lb 21 739	lb 15, 09	lbs 826 158	lbs 2 701 068	lbs 2 799 288	lbs 1 446 174	lbs 596 764	lb 3 260 090	lbs 831 000
Malta	341 845	28 063	1, 298		327		5 205	294	3 46	627 452
Turkey	396 550	289 719	432 698	410 730	537,940	557 180	608 189	600 555	109 433	463 978
Syria and Palestine						61 810			70 282	
Egypt	7 714 474	8,924 111	263,364	444 437	5 181 017	4 807 781	7 273 411	4 771 093	2,864 748	0,38 100
Western Coast of Africa				4 403	473	6,994	7 71	3 897	51 268	209
Capo of Good Hope			88	30 714	15 377				70 574	
Mauritius					39 570				50	
Malta India Company Territory and Ceylon	23 605 133	25,176,725	29 755 164	22,290 865	41 422 011	75 940 845	51 524 072	40 917 734	47 1 2,920	77 011 839
Sumatra and Islands in the Indian Seas				3 850		2 141	71 059	4, 339		
British North American Colonies	8 420	40 679	27 908		39,676	283 681	361 03	22 218	24 010	7 082
West Indies	210 016	7 158	145 909	3 339	672	1 811	17 508	12 485	81 638	1 44
Holland	2,401 085	2 010 428	2 041 862	2,296 25	1 815 270	1 714 337	1 693 792	1 321,390	1 218,164	800 157
Colombia and other foreign West Indies	251 278	59 413	389 791	523 044	91 129	53 273	21 020	60 044	171 092	171 926
United States of America		314		3 14	1 668	11 501	32 607	27 371	186 566	
Mexico and Guatemala	219,233,028	219, 46 753	237 506 758	209 908 073	284 455 812	289 618,028	270 61 716	481 437 898	211 59 796	487 856,064
Columbia		1 390	23 471	4 030	189	4 030			300 132	12 432
Brazil	834 601	299 692	306 033	1 904 846	1 904 379	2,219 986	2 548 877	2 5 7 103	2 035 744	1 818 349
States of the Rio de la Plata	31 693 701	30 109 660	28 403 821	19 291 797	21 966 409	27 501 3	50 040 145	24 464,368	17 071 079	14,779 171
Chili		2,789	822	850	16 299		112	10 287		
Peru	10 6 4	1 194	56	74,701	268 561	1 6,575	29 219	414 633	388,712	657 097
Other places	27 047	1 194	4,053	105 661	105 661	131 640	404 940	1 120 667	381 074	74
	110	172 182	947 280	96,164	97 829	335,270	166,964	181 060	600 655	133 137
TOTAL	259 674,8 53	286,832 323	303 650,837	320 875 415	359 702 963	400 939 097	407 26 783	307,850,777	359,296,550	574,468 010

QUANTITIES of Cotton Wool Re exported from the United Kingdom—(continued)

C O U N T R I E S	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
Russia	lbs 1 274 615	lbs 2,119,440	lbs 1 233 689	lbs 2,687 511	lbs 4 072,530	lbs 3 330,560	lbs 5 0 0 681	lbs 6,724 597	lbs 7 532,051	lbs 5 766 831
Sweden	194 335	13 884		17,498	188 388	68 14	108 848	46 814	241 07 1	104 226
Norway	53,250	42 634	28 989	89 273	39 227	134 899	63 654	58 282	102,018	85 433
Denmark	10 122	45 881		4 946	6 671	25 335	144 816		4 704	21 421
Russia	690 300	904 685	111 236	383 866	548 026	677 111	972,391	623 171	204 014	1 213 43
Germany	2,390,535	4,980 424	3,245,872	6 95 335	6 324 767	9 225 295	9 390 792	7 916,535	8 960 805	11,870 127
Holland			4 845 053	7 678 325	8,796 406	9 068 133	13 203,548	6 26 295	9 381 274	6 307 977
Belgium	11 443 021	8,800,717	6 180 159	3 30 726	8,256 177	8,913 035	7 751,861	4 334 222	6,219 680	4,284 380
France	181 069	1 119	62 095	1 101 827	239 590	107 312	34 595	105,770	648,096	231 668
Spain and the Bateuric Islands	2,003,711	2,323	289 718	209 268	86,864	26,952	27 161	2 013	59 293	89 504
Cibraltar										
Italy and the Italian Islands	3,174 866	1 108,998	1 026 600	2 274 178	3 001 702	2 071 188	2,274,311	2,990,736	5 642,207	6 650,560
States of the Rio de la Plata									5,808	
Other places	3,061	10 118								
TOTAL	22,308,545	18,079 940	17 363 892	24 461,063	29 779 734	31 730 269	39 722 031	30,644 469	36 738 234	86 672 222
Total quantities retained for home consumption in the United Kingdom.	273 340 638	251 412 563	293,682,976	362,935 687	376,407 092	363,684,229	269 445,053	415 056, 63	302 600 277	328 147 742

COTTON Wool Imported into the United Kingdom from the following Places during the Years 1841 to 1847, inclusive

C O U N T R I E S.	1841	1842	1843	1844	1845	1846	1847
From--	lbs	lbs	lbs	lbs	lbs	lbs	lbs
United States of America	358 210 661	414 030 7 0	574 734 590	617 318 028	605 650 418	50 157 633	
Brazil	16,771 246	15 224,428	16,6 5 132	21 063 744			
T r e k y S r i n and Egypt	8,434 72	4 4 0 950	8 770 160	5 28 810	11 42 960		
Other foreign countries	5 545,938	4, 2, 4, 481	4 924 875	11 874,533	3 871,806		
Total foreign	388,562 872	437 961 778	686 008 578	555, 60 389	602 292 431		
East India and Mauritius							
the growth of							
Foreign	97 368 319	99,073,441	63 587 567	88 639 608	56,41 486		
West Indies, growth of							
Foreign	10 841	168	112 172	168			
Other British possessions							
growth of							
Foreign	28 133	248 4 5	310 557	221 656	1 417 811		
Foreign	1 241 062	344 028	940,887	7 493 636			
Foreign	11 666	221 674	503 412	3 948	381		
Foreign	36,297	422	10 853	577			
Total British possessions	99 299,533	93 788 308	61 184 438	99,250 735	5,555,558		
Total all countries	487 922,251	571 50,086	673,193,116	685 111 304	23 057 980		

NUMBER of Bags and Bales of Cotton Imported, Exported, taken for Consumption, and the Stock on Hand in London, Liverpool, and Glasgow, each Year, from 1830 to 1847, both inclusive

Y E A R S	Imported	Exported &c.	Taken for Consumption and distroy d by Fire	Stock in London the 1st of January in each Year	Stock in Liverpool the 1st of January in each Year	Stock in Glasgow the 1st of January in each Year	Total Stock on the 1st of January in each Year
1830	bags 870 750	bags 35,800	bags 803 950	bags 74 070	bags 203,250	bags 8 672	bags 26,1 12
1831	901 764	80 699	874,505	42 852	258 100	21 268	32 0
1832	902 42	63,100	854 444	27 581	212 250	37 575	2 0 96
1833	1,119 6	79 066	877 580	24 102	10 050	12 058	215 320
1834	1,040 863	00 855	885 280	35 242	150 80	9 127	715 150
1835	1 099 369	10 210	537,616	26,296	143,311	13 808	18 0
1836	1,171,444	108 853	1 031 904	24 4 0	184 00	20 843	33 13
1837	1 162 630	198 535	1 063 631	60 280	261 500	23 500	250 040
1838	1 423 062	102,3 0	1 265 110	64 150	1 055	24 3 9	2 4 1 5
1839	1 103 350	121 829	1 043,513	40 450	248 543	7 390	4 1 1 1
1840	1 569 842	126 045	1 274 769	21 660	206,869	27 750	263 1 9
1841	1,341 659	117,330	1 118 717	80 690	306,140	2 248	44 098
1842	1 384 34	121 457	1 221 123	08,440	421 830	40 190	5 2 4
1843	1,540 982	121 410	1 341 662	74 370	4 6 000	20 254	60 40 4
1844	1 4 331	124 802	1 427 482	64 100	684 660	46 6 0	75 1 5
1845	1,855 060	120 80	1 5 7 617	01 773	740, 00	01 027	905, 1 2
1846	1 443,704	124 416	1 561 432	00 069	8 5 469	84 059	1 06 430
1847	1 237 60	221,808	1 104 809	77 063	491 370	41 703	51 4 8



STATEMENT showing the Quantity of Cotton Wool Exported to the undermentioned Ports from London, Liverpool, and Hull, in the Years 1842 to 1847

EXPORTED	1841	1842	1843	1844	1845	1846	1847
To—	lbs	lbs	lbs	lbs	lbs	lbs	lbs
Abo					247 25	35 990	
Amsterdam	3 48,496	637 518	1 767 80	477 868	801 66	6 30 030	
Alona	3 3,339	219 450	106 074	77 383	83 456	630 250	
A lborg			1 739	13 440		1 344	
Antwerp	6 720	2,937	330 948	51 328	33,356	1 028 367	
Bremen	21,372					4 014 534	
B igam	6,398,214	8 510 740	2 669 147	4 889 920	4,837,341	382	
Baychaleur						283 360	
Beirut			63 072		51 359		
Berge			120 612		7 280	5 884	
Bergoo						534 700	
Charlebau					293 384		
China		70 092	46 236				
Charal nestadt		187,690	5,221	26 360	66 640	65 680	
Crossa dr	1 569 336	1 297 321	3 127 572	3 187 744	2 821 508	5,820 184	
Christasia	29 672	159 771	16 320	135 632		343 777	
Constantinople	123 340	52 735		3 2' 6			
Copenhagen	2 800	104 341		1 744		702	
Cadix				13 668		67 200	
Calcutt			5 488				
Cornoua				9 632		35 840	
Canfoa						291 981	
Dart	2 092 92	4,868 792	1 348 764	594 168	1 062 258	3,627 349	
D ota c	347 789	818,236	262 650	313 504	1 050 520	668 586	
Drammen						38,010	
D om		10 267		6,730			
Dronheim				1 068		87 722	
Glent			3 070			7 038	
G noa	786 476	3,216 633	7 6 408	2 400 008	262 984	1 862 817	
G lumburgh	27 614		614 546	1 535 684	157,868	591 270	
Harr	87 438	540 613	163 072	127 008	40 692	194 983	
H amburgh	9,201,260	12 160 104	9 769,184	11 302 312	7 992,320	14 453 52	
H illi goo						288 717	
Hong Koo g			1 471 450		76 972	174 048	
Konigsberg	58 064	114 262	121 200	30 757	41 390	9 012	
Lauvig		12,240	2 688	1 568			
Luz r			14 326	672		3 310	
Luzbo	1 328			1 120	8 248	11 798	
M anno in							
M vesiles	98,112		11,312				
M ita	10 080				896	1 414	
M us						32 924	
Masalande		2 248				2 818	
Naples					642 080	567 018	
N wa Brunswick				2 338			
O land				26,960			
O leas	91 040	714,830			168 536		
I ter burg	6,568,948	9,235 295	4 968,920	9 134 129	10 351,480	6,290 140	
P tica				2 860			
R terdam	6,805 792	9,811 379	6,708,836	5 868 064	6,048 784	12 115 465	
R stock	6,648	19 324		1 768	0 720	7 019	
R ita	290 930	1 533 692	469 342	541 904	419 328	391 829	
Stockholm		156 340	241 944	54 320		83,200	
St tita	231 994	1,441,284	330,144	486,576	708,650	629,068	
Stolpe		1 627					
Scvilt						11 312	
Shang Hoo					36 960		
Stolpeinde					4 460		
Stralund	15 229				9 774		
T iste	684 608	10 273 303	7,859 009	2,603 088	573 216	6 669 136	
Tosburg	33,468	326,128	16,688	22 460	2,088	192 348	
Varel		1 820		19 284		82 92	
Venice		192 489		37 890	51 744	1 621,333	
Umca	6,664					1 404	
Ud lerwalla				85,640			
W ylong	35,840	108 782				2 258	
W amar					19 821	80 634	
Zw il		49 842		1 008			

## MISCELLANEOUS STATEMENTS RELATIVE TO COTTON WOOL

With respect to India, the foregoing statements regarding the imports of cotton wool may be considered sufficiently complete—if the consumption of cotton wool were not daily increasing in America and on the continent of Europe. The following summary statements and tables may therefore be instructive —

## THE Exports of Cotton grown in the United States of North America

YEARS	Quantity	YEARS	Quantity	YEARS	Quantity
1784	lbs 1,260	1804	lbs 37,191,288	1827	lbs 6,110,113
1785	2,150	(Embargo)	17,12,27	1828	210,590,453
1786	60		12,064,306	1829	264,94,186
1787	3,300		23,210,725	1830	2,845,102
1788	50		62,84,201	1831	2,04,943
1789	1,200,000		62,17,001	1832	222,223,122
1790	18,100	(War)	26,27,941	1833	1,207,80,000
1801	19,316	"	19,20,911	1834	413,02,10
1802	12,955	"	17,14,9	1835	41,73,200
1803	48,000		52,97,747	1836	463,577,600
1804	1,601,000		61,47,116	1837	564,104,010
1805	5,200,000		65,649,308	1838	468,05,560
1806	45,106,95		72,31,8	1839	180,3,550
1807	2,788,120		67,0,045	1840	230,531,800
1808	3,370,05		147,17,152	1841	555,9,420
1809	6,03,03		1,450,408	1842	511,112,17
1800	1,780,603		14,61,629	1843	617,358,445
1801	20,911,201		1,785,0	1844	663,623,415
1802	2,501,075		142,809,663	1845	240,011,24
1803	41,105,623		1,043,907	1846	
1804	3,118,841		301,335,415	1847	
1805	40,362,491				

\* From 1784 to 1790 inclusive the number of bags exported was respectively 8, 14, 0, 109, 880, 642, 61 which are estimated as weighing 150 lbs each.  
 † Some foreign cottons included.  
 ‡ The bags from 1833 to 1844 inclusive are estimated to weigh 330 lbs each.

## NUMBER of Pounds of Sea Island Cotton exported from the United States

YEARS	Quantity	YEARS	Quantity	YEARS	Quantity
1805	lbs 8,54,530	1820	lbs 11,718,300	1834	lbs 8,065,335
1806	6,096,042	1821	11,544,906	1835	8,250
1807	8,52,011	1822	11,250,635	1836	8,544,619
1808	9,110,1	1823	12,130,628	1837	8,007,1
1809	8,661,413	1824	9,055,722	1838	7,296,340
1810	8,661,078	1825	9,617,8	1839	8,107,104
1811	8,05,576	1826	9,973,632	1840	8,79,669
1812	4,26,066	1827	15,140,79	1841	9,12,130
1813	4,134,19	1828	11,208,412	1842	7,354,92
1814	4,150,738	1829	11,033,207	1843	9,15,079
1815	4,130,951	1830	8,147,163	1844	
1816	5,00,726	1831	8,911,762	1845	9,385,519
1817	6,101,890	1832	6,43,278	1846	
1818	6,735,00	1833	14,142,987	1847	
1819	11,015,00				

\* The bags estimated to weigh 330 lbs each.

The recognized distinctions of cotton on the continent of Europe, are as follows — 1 The North American, 2 The West Indian, 3 The South American, 4 The East Indian, 5 The Levantine, 6 The African, 7 The Italian, 8 The Spanish.

The relative value of the above cottons is as follows — Sea-Island, Bourbon, Egyptian, Maragnan, Bahia, and Pernambuco, Motril, from the kingdom of Grenada, Cayenne, Surinam, Demerara, and Berbice, Superior West Indian, New Orleans, Upland Carolina, Georgia, Tennessee, Inferior West Indian, Levant—European and Asiatic Turkey, Italian, Madras, Surat, Bengal.

## GROWTH and Consumption of Cotton in the United States of America

YEARS	Growth	Consumption	YEARS	Growth	Consumption
1829-30	bags 97 845	bags 127 512	1838-39	bags 1 460 39	bags 226,0 8
1830-31	1 038 548	184 112	39-40	2 1 7 235	241 379
1831-32	96 477	173 809	1840-41	1 634 118	297 298
1832-33	1 070 428	194 412	1841-42	1 681 574	307 849
1833-34	1 203 394	1 6 418	1842-43	2 378 8 5	325 129
1834-35	1 3 78	216 888	1843-44	2 630 409	346 744
1835-36	1 360 25	236 729	1844-45	2 141 863	351 060
1836-37	1 423 930	272 340	1845-46	2 100 532	422 207
1837-38	1 891 427	241 1 3	1846-47	1 86 479	427 967

## GROWTH of Cotton in the United States of America

PARTICULARS OF GROWTH	1829-30	1830-31	1831-32	1832-33	1833-34	1834-35	1835-36	1836-37	1837-38
	bags	bags	bags	bags	bags	bags	bags	bags	bags
New Orleans	354 024	420 183	323 645	463 430	454 710	511 140	474 747	304 239	711 561
Mississippi							6 489	7 72	19 075
Florida	5 787	13 073	22 651	23 610	26 738	29 0 5	79 762	93 703	106 171
Alabama	169 684	113 186	125 911	129 2 0	149 378	197 699	336 716	324 343	309 867
Texas									
Georgia	243 117	250 502	276 437	2 1 920	234 655	222 070	270 121	369 071	394 210
South Carolina	188 571	170 106	174 9 2	184 800	227 521	392 150	321 237	196 377	241 244
North Carolina	36 892	36 540	28 414		35 220	84 399	3 05	19 064	23 210
Virginia	35 500	37 8 5	3 800	61 009	44 745	33 170	2 157	25 618	32 006

## GROWTH of Cotton in the United States of America—(continued)

PARTICULARS OF GROWTH	1838-39	1839-40	1840-41	1841-42	1842-43	1843-44	1844-45	1845-46	1846-47
	bags	bags	bags	bags	bags	bags	bags	bags	bags
New Orleans	504 6	540 505	813 8	797 058	1 060 946	832 172	929 120	1 037 144	705 079
Mississippi	16 43	6 70	1 085						
Florida	5 177	126 2 7	28 1 2	114 416	161 048	145 862	185 073	141 184	127 692
Alabama	281 442	445 72	329 701	318 315	481 714	467 590	617 196	621 060	621 462
Texas									
Georgia	205 112	27 703	145 347	979 271	2 19 491	258 697	295 540	1 4 111	242 760
South Carolina	310 173	313 124	2 400	360 184	351 654	304 870	436 701	381 635	350 200
North Carolina	11 126	9 534	7 825	9 787	6 620	8 438	19 487	10 127	9 081
Virginia	22 00	26 200	21 800	91 013	15 679	1 600	2 200	10 42	15 819

STATEMENT showing the Quantities of Cotton Wool, together with the Value thereof, exported from the United States to all Countries, during the Years 1842 and 1843

C O U N T R I E S	1842			1843		
	Sea Island Cotton	Other Sorts	Value	Sea Island Cotton	Other Sorts	Value
United Kingdom viz—						
France	lbs 5 384 968	lbs 256 043 816	dollars 48 758 071	lbs 6 617 457	lbs 537 113 298	dollars 31 236 10
Spain	173 500	16 035 314	1 30 005	428 560	3 154 0 4	2 26 605
Ireland		46 821	37 41		2 611 129	17 543
Belgium		8 727 699	13 1 5		1 143 710	9 4 810
France on the Atlantic	1 545 401	143 72 83	1 54 8 5	427 910	1 09 114 845	8 7157
France on the Mediterranean		10 546 027	8 0 149		6 211 881	38 09
Cuba		6 299 256	0 4 072		8 478 082	648 344
Italy (northern)		4 311 210	301 208		7 931 136	450 145
Spain		2 21 443	20 1 1		1 1 1 1 1 1	16 062
Portugal		7 052 300	57 0		6 015 15	250 180
Mexico					1 638 478	1 5132
United States		1 094 802	47 655	917	5 8 17	163 341
Other Countries		22 471 240	1 81 946		27 302 664	1 044 198
TOTAL	7 1929	3 2 915	47 37401	7 515 6 4	84 752 02	49 119 806

## Exports of Cotton Wool from the United States, during the Year 1845—6

WHITHER EXPORTED	COTTON			WHITHER EXPORTED	COTTON		
	Sea	Other	Value		Sea	Other	Value
	lbs	lbs	dollars		lbs	lbs	dollars
Russia	4 222 690		403 810	Brought forward	9 335,219	488 214,285	29 274,323
France	149 005		11 000	Spain on the Mediterranean		11 848	664
Sweden and Norway	2,855 787		189 291	Cuba		10 985,563	741 848
Denmark	32 288		2,116	Other Spanish West Indies		14 164	1 011
Holland	3,849 856		277 900	Portugal		38 533	3 100
Belgium	7 405 423		521 023	Italy		11 12 093	706, 94
England	6,591 890	319 871,281	26,166,311	Nardonia		2 38 954	164 04
Scotland	571 174	12,841 676	1 076 11	Sicily		710 615	48,167
Ireland	6 370 746		465 289	Treaste and other Austrian		13,388 018	108,157
Gibraltar	1 004 210		74,181	perse		4,392,298	347 700
British American Colonies	47 380		4 674	Mexico		85 760	5,625
France on the Atlantic	3,319,735	121 05 714	9 497,296	China			
France on the Mediterranean	7,867 486		582 639				
Carried forward	9,335,219	488,411,585	30,374,323	TOTAL	9,335,219	530 626,205	43,220 065

THE following Table of the Quantity and Value of Cotton Imported into France, and of Cotton Manufactures Exported from that Country, from 1787 to 1789, and from 1812 to 1843, is taken from the "Enquête Relative à Diverses Prohibitions, published from Authority, and from the Yearly Statements of the Director General of the Customs

Y E A R S	Cotton Imported		Cotton Manufactured Goods and Yarn Exported	
	Weight	Value	Weight	Value
	kilogrammes	frances	kilogrammes	frances
1787	4 467 000	47 963,100		31 227 400
1788	5 430 424	36,627 600		21 455 400
1789	5 60 221	33 274 000		11 280 000
1812	6,343 250	35 115 083	722,789	18 207 938
1813	9 630 848	54,550 710	867 653	9 522 608
1814	8 181 710	37,737 600	321 995	10,187 444
1815	16,414 606	32,895 212	314 969	9 655,340
1816	12 115 042	19,849 523	1,070 128	22 062,098
1817	13 370 598	25,591 051	941 370	18 419 166
1818	16,974 120	30 945 280	781 766	16 44 362
1819	1, 010 401	32,324,948	927 756	19 006,547
1820	20 203 314	36 895,167	1 360,180	29 140 638
1821	22 340 018	41,566 675	1 700 028	21 534 091
1822	21 572 413	39 716 083	1 167 073	21 284 478
1823	20 152 552	37 006 940	1 896,215	24 412 455
1824	28 630 965	49 187 674	1 731 675	21 870 074
1825	44 66 212	41 063 717	1 847 417	43 100 445
1826	31 014 694	56 358,941	1 025 765	3 646 33
1827	29 684 383	51 918,011	1,267 678	46 242,211
1828	27 275 163	49 143 891	1 397 178	45 29 327
1829	21 833 001	37 130 659	2 331 005	20 49 840
1830	20 960 413	31 760,383	2 330 065	55 637 1 0
1831	26 232 487	49 441 810	3,360,144	55 013 059
1832	37 636 417	68,441 609	2 333 474	5 148 486
1833	35 009 810	62,281 58	2 132 738	67 007 133
1834	39 234 505	65 084 104	2 260 229	3 416 116
1835	34 7 3,810	67 739 115	2 74 06	68 116 310
1836	41 321 674	78 818,123	2 142,345	65,200 450
1837	43 008 458	76,200 787	2 436 674	67 22 160
1838	51 254 070	89 461 81	3 466 138	80 26, 153
1839	49 534 9 8	71 204 84	3 073 642	85 722 051
1840	42 41 581	64 063 975	4 50 906	160 133 044
1841	55,870 483	58 549 549	4 416 314	103 810 127
1842	57,3 6 577	101 830 678	3,763 362	72 2 127
1843	59 292 837	107 082 804	3 20 848	129 576,417
1844	69 311 54	116 265 137	5 301 911	190 368 328
1845	7 110, 21	120 25 580		
1846	74 04 543	128 076,73	6 013 939	134 661,654
184				

## FRENCH Cotton Wool Trade at Havre —Statement of Imports, Deliveries, and Stocks, from January 1 to December 31, for Ten Years

YEARS	STOCK JANUARY 1		IMPORTS		DELIVERIES	
	United States	All Kinds	United States	All Kinds	United States	All Kinds
	number	number	number	number	number	number
1843	43,300	53,910	320,977	320,978	310,977	338,992
1844	88,200	100,000	276,510	276,095	306,413	376,095
1845	101,490	110,000	393,327	393,297	315,038	376,373
1846	84,000	90,000	341,516	363,197	321,110	319,197
1847	73,000	80,000	341,663	357,383	330,663	347,383
1848	48,400	57,000	362,043	375,643	335,445	351,643
1849	30,500	33,700	227,738	264,168	209,868	240,868
1850	26,800	33,000	323,064	361,370	274,164	368,370
1851	34,300	45,500	284,217	248,455	220,417	271,329
1852	12,200	18,800	270,370	260,290	204,270	233,560

## STATEMENT of the Quantity of Raw Cotton Imported into France and retained for Consumption from the Undermentioned Countries, in the Year 1846

COUNTRIES	Quantity retained for Consumption	Quantity imported	COUNTRIES	Quantity Imported.	Quantity retained for Consumption
Germany	74 00	42	New Grenada	15 605	10 303
Netherlands	348,786	348,057	Peru	421,420	361,426
England	78 664	4 828	Chili	24 034	192 804
Turkey	6,331		Texas		13,828
Turkey	441,070	618 418	Cadaluques	18 105	14 000
Egypt	1 680 111	1 466, 39	Martinique	3 053	3 599
States (Barbary)	7 242	50 5	French Guiana	125 29	145,159
British Possessions in India		6 016	Wrecks and Salvages	18 313	18, 45
French	435		Other Countries	513	288
United States	67 809 624	60 759 673			
Havre	77 093	43 450	TOTAL	71,561 54	64 227 432
China	10 010	9 394	1846	72 915,071	60 737 624
Brazil	65 114	57 167	1845	69 411 922	58 693 094
Venezuela	143 3 6	181 797			

SWITZERLAND —The following quantities of cotton wool have passed in transit through Franco into Switzerland the kilogramme being more than 2 lbs avoirdupois —

YEARS	Kilogrammes	YEARS	Kilogrammes
1853	2 628 000	1840	6 919 000
1854	4 240 000	1841	7 377 000
1855	4 372 000	1842	9 836 000
1856	6 480 000	1843	7 062,000
1857	6 433 000	1844	7 440,000
1858	7 120 000	1845	
1859	4 47 000	1846	

## COTTON WOOL IMPORTED INTO THE GERMANIC UNION OF CUSTOMS

THE demand for cotton wool in Germany has greatly increased, not that we consider that a wise policy is adopted by the government, or that the system of manufacturing industry is based on sound principles, but the demand has arisen from the industry of the Germans, which is remarkable for steadiness, if not for activity

The imports of cotton wool into Prussia for consumption in 1823 were 39,636 centners, and in 1829, 48,909 centners.

After the Germanic Union of Customs was instituted, the progress of the cotton wool importation, and of the cotton trade with foreign countries, has been as follows —

TRADE OF THE GERMANIC UNION OF CUSTOMS IN COTTON WOOL AND COTTON MANUFACTURES

Imports, Exports, and Transits of Cotton, and Cotton Yarn, and Woven Manufactures

Y E A R S	I M P O R T S				E X P O R T S				T R A N S I T			
	Raw Cotton	Cotton Yarn		Cotton Goods, Woven Manufactures, and Smallwares.	Raw Cotton	Cotton Yarn		Cotton Goods, Woven Manufactures, and Smallwares	Raw Cotton	Cotton Yarn		Cotton Goods, Woven Manufactures, and Smallwares
		White (Unbleached and Wadding)	Double or Twined Yarn (Twist Knit and all Dyed Yarn)			White (Unbleached and Wadding)	Double or Twined Yarn (Twist Knit and all Dyed Yarn)			White (Unbleached and Wadding)	Double or Twined Yarn (Twist Knit and all Dyed Yarn)	
1823	11 311	172 101	3 764	14 150	69 466	37 158	25 884	5 856	109,067	4455	174 064	
1824	11 219	146 702	2 579	13 938	55,514	18,253	21 419	23,824	24,356	147 498	5656	131 650
1825	175 317	251 148	6,958	13 540	24 503	40 695	12 077	74,945	34 622	5 156	9918	73 419
1826	121 013	244,067	6 472	13 809	31 051	28 918	11 324	81 249	30,574	70 448	3892	82 158
1827	147 839	207,827	9 190	13 807	35 104	27 219	11,855	84 572	1 484	37,249	2953	43 309
1828	248,315	221 040	6 808	13 190	35,929	24,159	16 511	75 159	17 352	1 224	3198	42 187
1829	222 337	364 612	4 08	16 482	49 410	2 342	20 018	85 001	30 425	72 128	4722	44 428
1830	182 285	358 121	6 130	16,018	4 819	34 896	20,123	167 60	34,255	71 56	35 1	56 115
1831	329 551	431 216	6 2 7	17 484	79 227	27 768	22 371	27 768	41 499	8 223	4295	59 54
1832	275 288	498 383	6 330	16,219	50 216	30 523	30 173	87 028	36 120	67 069	6602	50 364
1833	31 034	427 564	6 923	12 6 7	73 03	33 848	22 272	72 050	47 780	64 828	6838	49 674
1834	391 138	451 88	9 639	10,437	84 307	39 468	35 466	74 752	43 001	69 62	3669	48 193
1835	259 727	370 184	26 151	8 074	92,222	17 727	10	61 276	36,672	65 514	8853	57 058
1836	446 470	461 900	22 410	9 679	101 01	10,357	27 710	76,517	60,518	0,330	6688	60 400
1837	332 110	562 844	21,945	10 220	23 630							

There were in 1843 within Prussia forty-eight spinning-mills, with machinery moving 131,026 spindles, divided among the following cities, viz —

Breslau, two, with 28,000 spindles, in Liegnitz, two, with 6500 spindles, in Munster, four, with 2420 spindles, in Arnesberg, one, with 7200 spindles, in Cologne, five, with 14,373 spindles, in Dusseldorf, twenty-three, with 55,939 spindles, in Coblenz, three, with 13,588 spindles. There were employed in these factories, under fourteen years, 579 boys and 524 girls, above fourteen years, 1438 males, 1588 females. There were altogether 815,000 spindles within the Germanic Customs in 1843, of which more than 500,000 in Saxony, the remainder, exclusive of Prussia, chiefly in Wirtemberg and Baden. The whole spun about 210,000 centners of twist during the year, or about one-third of all the cotton yarn woven in the Zoll-Verein.

AUSTRIA.—IMPORTS OF COTTON WOOL.

PART of the cotton wool passed in transit, or exported from the Zoll Verein



**HOLLAND**—In 1843 the quantity imported into Holland was 6,860,000 kilogrammes, or nearly 14,000,000 lbs, value 9,339,000 francs, equal to about 3,270,000 sterling. The imports were nearly about 2 83 francs from the United States, 2 65 francs from England, 2 11 francs from France, 0 75 francs from Turkey, 0 55 francs from Belgium, and 0 44 francs from all other places.

The re-exportation in 1843 amounted to 4,785,000 kilogrammes, value 6,524,000 francs, of which to Germany nearly five sixths. Nearly one twelfth went to Belgium and Holland.

**BELGIUM**.—Of the imports of cotton wool into Belgium, part is retained for the manufactures of the country, and part sent onwards in transit to Germany—See Trade of Belgium.

About 500 bales of cotton wool are imported into Copenhagen, and small quantities are imported in transit through Hamburg and Altona.

**SWEDEN**.—In 1830 the quantity of cotton wool imported was 543,124 lbs. In 1838 about 700,000 lbs, in 1840, 1,215,301 lbs.

In 1840 into Stockholm 954,764 lbs of cotton wool, transit, 4142 lbs.

*Linen Cloth and Tissues of Cotton and Flax*—The quantity produced in 1839 in the manufactories, of which there were forty-four, amounted to 1,218,246 ells of tissue, properly so-called, consisting principally of cotton cloths and calicoes, and 78,107 handkerchiefs, of a total value of 465,580 r d, being an increase over 1838, in quantity, of 112,363 ells, and 15,823 handkerchiefs, and in value of 38,999 r d.

*Cotton Yarn*—The manufactories, the number of which was nine, produced, in 1839, 1,138,797 lbs of cotton yarn, being 168,787 lbs more than in 1838. The greatest quantity was produced by the firm of Bohnstedt and Bergman, at Stockholm, being 361,000 lbs.



## OFFICIAL Account of Cotton Goods made in the forty four Factories of Sweden during the Ten Years, ending with 1840

YEARS	Cotton Goods manufactured in regular Factories	Cotton Goods manufactured by the Consistory of the Government of Ellsberg	TOTAL of Cotton Goods produced	OBSERVATIONS
1831	alnars 2 7 029	alnars 12 2 740	alnars 1 851 078	1a) The Swedish alnar is equal to about two thirds of an English yard 2d Besides the goods measured by the yard a considerable quantity of cotton goods rated by the piece is annually made such as shawls, handkerchiefs, waistcoats &c 3d By the tariff of 1830 which took effect on the 1st of January 1831, several articles of cotton previously prohibited were allowed to be imported 4b The tariff of 1835 which came into effect on the 1st of January 1836 gave additional facilities for importation
1832	62 140f	2 64 125	2 6 161	
1833	45 2	2 656 307	3 072 037	
1834	545 192	2 571 515	3 409 611	
1835	911 4	2 12 505	3 513 779	
1836	593 473	3 100 660	4 0 930	
1837	62 194f	4 015 03	4 810 586	
1838	1 105 883	3 831 258	4 977 141	
1839	1 18 240	4 084 505	5 307 775	
1840	1 296 822	4 653 3 1	5 850 63	

## OFFICIAL Return showing the Progressive yearly Increase of the Manufacture of Cotton Twist in Sweden, as compared with the Quantities annually Imported, from 1821 till 1845, inclusive

YEARS	Quantity in Pounds Weight of the Cotton Twist made in Sweden	Quantities in Pounds Weight of Cotton Twist imported into Sweden		Quantity in Pounds Weight of the Cotton Twist made in Sweden	Quantities in Pounds Weight of Cotton Twist imported into Sweden	
		From No. 1 to No. 25 inclusive			From No. 1 to No. 25 inclusive	
		Above No. 25	Below No. 25		Above No. 25	Below No. 25
1821	11 s		lbs 171 667	1823	lbs 369 250	lbs 196 501
1822	64 438		180 017	1824	328 074	102 760
1823	40 126		194 143	1825	452 404	134 910
1824	7 050	Importation prohibited until the year 1830	290 131	1826	675 303	140 820
1825	7 3 3		244 813	1827	575 622	124 880
1826	87 285		297 765	1828	970 010	77 577
1827	07 137		397 718	1829	1 128 740	155 0 5
1828	6 447		416 750	1830	1 407 408	209 489
1829	81 75		648 179	1831	1 126 422	426 110
1830	127 14		686 316	1832	1 957 772	1 043 334
1831	15 192	lbs 504 352	511 432	1833	1 733 258	601 140
1832	1 25 249	205 831	826 250	1834	2 290 460	408 674
				1835	2 959 581	356 752

REMARKS—1. Not by the whole of the cotton twist made in Sweden is below No. 25. 2. The importation comes in entirely of English twist. 3. Two cotton mills were destroyed by fire in the years 1841—42. They were soon rebuilt.

**NORWAY**—In 1835 there was imported 63,510 lbs of cotton wool, and 112,190 lbs passed in transit. In 1841, 219,670 lbs cotton wool, and 661,622 lbs passed in transit.

**RUSSIA**—Tabular statements of cotton wool trade and cotton manufactures, from Russian official report.

“Of all the branches of manufacturing industry, that of cotton is one which has received, in the course of the last twenty years, the greatest development in Russia, and the progress of which has produced remarkable results. The state of prosperity which these very establishments have reached in so few years, due, in a great degree, to the wise measures adopted by the government for the protection of this branch of national industry, proves at the same time, how well those measures had been calculated. The increasing activity of which we have spoken, is in itself so remarkable for the regularity of its progressive advancement, that (interesting as it must necessarily be on this and many other accounts) we consider it our duty to enter into some further details on the subject.”

The following comparative table shows the importation of raw cotton into Russia from 1824 to 1841

YEARS	Cotton from America India Smyrna &c by the Frontiers of Europe		Cotton from Persia the Kingdoms of Khiva and of Bokhara &c by the Frontiers of Asia.		YEARS	Cotton from America India Smyrna &c by the Frontiers of Europe		Cotton from Persia the Kingdoms of Khiva and of Bokhara &c by the Frontiers of Asia.	
	poonds	poonds	poonds	poonds		poonds	poonds	poonds	poonds
1824	96,349	19,832	55,372	1838	196,092	3,735	13,922		
1825	39,130	22,937	62,367	1839	144,355	3,735	15,119		
1826	44,813	56,156	105,063	1840	90,987	11,158	2,24,915		
1827	60,48	1,026	67,674	1836	204,420	50,19	235,439		
1828	75,114	23,256	98,215	1837	210,151	22,011	37,74		
1829	49,675	30,678	134,534	1838	21,86	11,729	226,726		
1830	85,613	0,791	116,314	1839	3,233	20,690	354,432		
1831	86,134	18,415	184,549	1840	85,07	38,462	398,149		
1832	120,027	6,497	12,134	1841	291,466	32,535	314,301		

### RAW Cotton imported into Russia

C O U N T R I E S	1837	1838	1839	1840	1841
	poonds.	poonds.	poonds.	poonds.	poonds.
Great Britain	146,011	178,410	195,041	197,178	197,893
France	4,168	9,337	28,806	27,18	23,285
America	44,001	48,934	61,137	3,599	25,409
Turkey	29,063	65,531	44,67	67,243	13,771
Persia.		767	1,324	3,407	3,801
Khiva	4,425				11,21
Bokhara	11,74	9,184	19,08	29,368	12,030
Taschkent	3,36	1,01	2,862	3,029	4,388
From other countries of Asia	6,33	13,876	9,063	3,407	10,144
Total	262,782	316,707	354,832	398,189	314,301
By way of St Petersburg	179,926	231,681	267,366	256,113	244,052

"Russia alone consumes about one-fifth of the whole of the raw cotton annually exported by England, the principal entrepôt of this trade

### Cotton Thread Imported into Russia by the Frontiers of Europe and Asia

YEARS	EUROPE		ASIA.	
	White Thread	Dyed Thread	White Thread	Total of White Thread
	poonds	poonds	poonds	poonds.
1824	206,274	2,869	1,039	207,113
1825	246,748	17,019	87,133	333,881
1826	241,663	21,035	21,061	262,724
1827	299,187	26,07	21,054	320,241
1828	329,719	23,255	27,452	357,171
1829	454,658	28,064	31,114	492,836
1830	290,022	19,813	31,14	321,169
1831	240,382	24,343	4,13	264,729
1832	551,706	26,188	1,94	577,894
1833	400,067	20,706	27,086	427,053
1834	4,006	18,961	25,490	23,461
1835	511,416	8,41	36,768	548,185
1836	1,600	5,74	49,10	50,844
1837	600,205	4,257	57,341	661,803
1838	571,71	5,313	34,596	611,617
1839	513,714	4,126	28,108	545,948
1840	46,913	3,721	53,206	103,840
1841	50,11	2,400	53,088	105,599

\* The importation of dyed thread diminishes, the number of dyers in Russia having successively augmented

## COTTON Wool Imported into Russia from the following Countries —

IMPORTED FROM	1837	1838	1839	1840	1841
	poods	poods	poods	poods	poods
England white thread	691 3	304 129	511 610	428 239	304 216
— dyed	847	1,790	1 403	1 437	1 900
Germany white thread	35	5 81	70	2 1 4	1 8 3
— dyed	3,511	3,269	3,714	1 072	1 135
Turkey white thread	4 150	1 591	1 132	3 977	1 498
— dyed	619	513	217	916	97
Persia white thread	8,176	7 934	6,541	14 173	16 600
Ebiva ditto					7 107
Bukhara ditto	34 6 7	30 577	15 131	98 059	23 5 5
Taschkent ditto	13 345	6 450		9 997	4 679
Several other countries ditto	485	246	633	1 325	181
— dyed	500	31	102	300	32
Total white	65, 537	606 077	826 417	519 189	550 749
— dyed	4 87	8,693	4 456	3, 121	2,460
By way of St. Petersburg w third	52 572	408 064	438,103	381 587	397,369
Ditto ditto, dyed	3 285	4 248	3 490	3,420	1 588

“By this we see that English spun cotton formed by itself nearly nine tenths of the whole of the imports

## VALUE of Imports of Woven Cotton into Russia.

IMPORTED FROM	1837	1838	1839	1840	1841
	roubles paper money	roubles paper money	roubles paper money	roubles paper money	roubles paper money
Great Britain	2 180 103	2 378 515	2 947 452	2 487 32	1 830 302
Germany	1 830 819	9 074 060	1 812 098	2 381 191	128 8 037
Turkey	1 30 0	1 619,391	1 313,2 8	842 039	1 006 309
Persia	4 141 380	5 890 379	5 543,880	6,302 681	8 011 323
Bukhara	1 154,779	1 548 658	1 074 612	1 115 052	2 401 838
Taschkent	6 0 30	383 424	1 143 545	1 019,337	1 004 396
Several other countries	319 285	294 434	294 062	1 187 720	967 019
TOTAL	12 820 949	13 977 861	13 727 618	16 731 056	16 27 54

“Stuffs of superior quality, sent to us by England and Germany, diminish as is seen whereas those of ordinary quality, and of small value, which come from Asia, successively augment. The latter are destined for the use of the Asiatic race of people, which is so numerous in the provinces of the west and south

“However satisfactory this increase of imports may seem, we cannot help remarking that our foreign relations as regards our cotton manufactures will for a long time to come yet continue to be of much less importance than the immense market of the interior, which cannot fail to increase more and more on account of the uninterrupted increase of population and national wealth in Russia. Foreign exportation is not yet an imperious necessity, for our factories, as is probably the case in other countries, where a spirit of enterprise has led people into a state of exaggerated manufacturing activity. Without having to fear the effect of accidents and events (which so often bring with them stagnation and catastrophes in the speculation trade), our manufacturing industry may still freely develop all its energy with the view of attaining that degree of activity which will make it necessary for Russia to require from foreign nations any thing else beyond the raw materials. The progress she has already made authorises us to believe that Russia will reach this great desideratum.”

OBSERVATION —It will appear evident from all the foregoing statements, that it now becomes a question of primary necessity in order to maintain our cotton factories, and especially to employ the great increase of our population, which depend on that branch of occupation for subsistence, to ascertain that the

raw material cannot be obtained in sufficient abundance and cheapness, without, in a great measure, resorting to the soil of India, and we may also endeavour to direct attention to its growth in some other countries in Asia and the Indian Archipelago. It may, however, first be instructive, with that view, to trace briefly the progress of the cotton manufactures of the United Kingdom

COTTON MANUFACTURES OF THE UNITED KINGDOM AND EXPORTS OF COTTON FABRICS TO FOREIGN COUNTRIES

WHEN James Hargreaves, an ingenious but uneducated mechanic, invented the spinning jenny in 1767, the value of all cotton manufactures spun, woven, and dyed in England, was, by calculation made by Postlethwaite during the preceding year, no more than 600,000*l.*, and even in this amount the value of the linen thread, used very extensively, as warp was included

From the introduction of the jenny, which was followed by Arkwright's improvement in 1769, of Wyatt's original invention in 1738, of the spinning frame, and since the construction of the jenny and frame by Crompton, of Bolton, in 1775, the application of steam to working the machinery, and the general use of the mule jenny, and especially after the setting aside of Arkwright's patent in 1785, that we may date the rapid progress of our cotton manufactures

OFFICIAL Value of Cotton Goods Exported from Great Britain during the following Years —

YEARS	Official Value of Exports	YEARS	Official Value of Exports
1699	5 917	1788	1 259 240
1701	23 253	1789	1 231 227
1710	5,695	1790	1 665,869
1720	10 200	1791	1 875 045
1750	15 881	1792	2,014 268
1761	20 00	1793	1 738,657
1761	45 865	1 94	2 370 077
1764	200 254	1 95	2 431 331
1765	248 248	1 96	2 214 020
1766	220 50	1797	2 580 068
1780	355 009	1 98	2,602 158
1785	864 710	1799	2,600 000
1790	212 040	1800	5,631 000
1787	1 101 457		

OFFICIAL and Declared or real Value of the Cotton Manufactures and Yarn exported from Great Britain from 1801 to 1820 inclusive

YEAR	MANUFACTURED GOODS		TWIST AND YARN		TOTAL EXPORTS	
	Official Value	Declared Value	Official Value	Declared Value	Official Value	Declared Value
1801	£ 6,604 3/8	£	£ 411 4/11	£	£ 7,059 8/9	£
1802	7,193 0/00		434 0/5		7,627 0/5	
1803	6,442 0/37		633 4/04		7,075 4/11	
1804	7,534 5/4		902 2/08		8,436 7/72	
1805	6,615 9/6		914 2/25		7,530 1/65	
1806	9,53,824		726 2/23		10,264 5/43	
1807	9,047 4/6		691 7/10		10,739 7/65	
1808	12,503 6/18		473 0/73		13,976 7/96	
1809	14,325 6/14		1,000 3/58		15,325 10/12	
1810	1,895,510		1,053,473		2,948,983	
1811	115 0 5/51		483 5/98		12 011 1/49	
1812	14,723 2/3		794 4/63		15,517 8/99	
1813		Records destroyed by fire		Records destroyed		Records destroyed
1814	16,523 5/28	17,241 8/84	1,110 5/20	2,791 2/48	17,635 2/78	29,033,139
1815	31,980 7/2	18,546 8/35	801 9/53	1,674 6/21	32,259 6/45	20,620 9/56
1816	16,183 3/23	12,308 2/14	1,380 4/65	3,095 4/48	17,584 8/1	15,577 3/32
1817	20,138 3/66	13,967 6/00	1,145 2/16	9,154 1/81	21,293 2/44	16,019 0/01
1818	11,213 3/4	16,372 1/2	1 1/9 7/76	2,365 2/15	22 5/10 1/30	18 7/6 3/12
1819	16,696,530	12,180 1/20	1,583,798	3,519 7/83	18,216 2/32	14,699 9/12
1820	20,567,920	13,690 1/15	2,924,153	6,820 6/43	22,241 0/79	11,516 5/8

STATEMENT of the Quantity and Declared Value of British Cotton Manufactured Goods Exported from the United Kingdom, distinguishing the Description of Goods in each Year from 1820 to the present time

YEARS	WHITE OR PLAIN COTTONS		PRINTED OR DYED COTTONS		HOSIERY AND SMALL WARES	TWIST AND YARN		TOTAL DECLARED VALUE
	Yards	Declared Value	Yards	Declared Value	Declared Value	Pounds	Declared Value	£
1820	11,106 1/68	5,431 0/24	134,668 1/44	7,712 5/05	£ 4,065 5/40	23,932 3/25	2,826 0/30	16,616 7/48
1821	12,221 2/2	5,713 2/1	140,418 0/99	7,454 2/13	6,112 5/94	21,26,369	2,715 8/23	16,093 8/27
1822	11,102 1/41	6,117 7/3	180,322 1/57	7,460 6/31	792 5/35	36,763 4/68	2,617 5/62	17,218 7/24
1823	1 1/81 1/5	854 1/4	140,031 3/07	7 5/9 7/91	780 0/14	27,278,006	2,023 8/46	16,326 4/08
1824	1 0/91 3/44	6,437 4/17	174,509 7/49	7,010 4/32	869 8/40	33,005 5/10	3,133 2/90	18,452 4/97
1825	154,074 1/6	6,027 8/82	178 4 1/12	8,203 1/17	1,020 7/87	7,206 7/99	3,401 3/38	19,359 5/80
1826	138,151 5/3	5,477 9/18	228,899 1/11	5,388 3/92	755 4/07	44,189 6/61	4,301 3/38	14,053 7/73
1827	18,940 1/60	5 7/6	181,541 7/18	7,184 4/90	1,144 5/58	44,678 7/4	6,815 5/8	17,023 1/65
1828	18,475 9/5	5 1/80 4/1	1 3/8 7/476	6,659 4/47	1,115 3/13	69,305,731	8,510 4/05	7,244 4/1
1829	22,301 3/44	5,533 6/41	140,021 2/12	6,692 2/23	1,041 8/80	61,441 2/51	6,076 8/74	17,815 6/6
1830	11,262 1/2	6,42 9/7	191,220 4/56	7,573 2/72	1 1/1 1/53	64,485 3/62	4,139 7/41	19,429 1/4
1831	2,475 1/11	9 0/4 4/28	182,021 0/82	6,096 0/95	1,118 7/72	63,601 4/08	3,013 0/19	17,257 7/4
1832	25,113 0/96	5,554 9/24	201 52 4/07	3,445 7/96	1 5 6/60	78,667 5/16	4,722 5/30	17,398 1/1
1833	25 1/4 5/64	5,817 4/0	241,852 2/38	6,693 3/30	1,211 3/17	70 1/6 1/61	4,704 6/21	18,480 1/4
1834	282,150 1/58	6,514 1/13	271 5 4/51	7,013 1/79	1 1/7 9/19	76,474 4/08	5,211 6/15	30,133 5/6
1835	217,704 2/26	6 1/150	278,811 1/17	8 2 0/62	3,240 3/45	82,911 1/26	3,000 5/95	28,128 6/4
1836	1 1 4/27 1/79	7,385 4/44	312 2/9 4/48	9,137 8/14	1,328 2/5	88,193 4/67	2,120 3/65	24,232 0/54
1837	289,161 2/50	6 0/85 8/3	245 2/10 4/07	6,142 2/80	919 1/22	103 4 1/80	6,935 4/41	30,546 1/23
1838	1 1 1/4 5/45	2 1/831	32 713 7/7	8 2 0/80	3,111 1/42	111 4/6 6/99	7,431 8/71	24 1/4 2/5
1839	3 0 11/8 0/57	7 5 7/12	151 84 1/1	6 5 8/46	1,311 3/27	103 4 4/44	6,868 1/34	34,560 1/75
1840	432,113 2/23	7 4/93 7/2	25 517 2/1	8 4 1/48	1,205 9/40	116 17 1/221	7,101 4/08	24,628 6/14
1841	421,884 3/7	7 2/13 0 5/5	7 1 40 3/2	7 1/2 2/35	1,246,780	1 3 2/9 5/19	7,266 9/56	23 1/9 1/25
1842	43 51 1/11 4/5	6 5/93 3/15	98 2/7 1/65	6 4/7 5/8	3,080 0/1	13 4/95 2/25	7,771 3/64	21,773 5/48
1 4 4	44 25 2/0	6 0/24 2/27	3 1/653 1/90	7 1/11 1/27	10 5 5/31	14 3/11 3/61	7,103 9/71	24,447 0/71
1 1 4 0	6 1 2/10 1/21	9 1/16 8/47	403 1/21 4/00	8 2/5 2/51	1 0 1/11 8	13 4/0 9/72	6,982 3/84	26,808 3/48
1845	7 4 1/10	0 0/1 0/14	412 0 2/28	8,308 0/4	1,126,488	13 114 8/5	6,963 2/30	30 11 1/4 0/20
1846	7 3 2/33		30 1/2 8/9			156 16 8/29	7,862 4/48	35,626 1/17
1 4 17	31,269 3/47		312,67 0/84			116,271 3/82	4,953 2/97	43,320 5/80

NOTE.—Exclusive of sewing thread which in 1846 was 3,511,661 lbs and in 1847, 3,249,358 lbs

Wool and Yarn Exported from the United Kingdom to the following Countries

C O U N T R I E S	1831		1832		1833		1834		1835	
	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value
	lbs	£	lbs	£	lbs	£	lbs	£	lbs	£
Russia	18,500,000	1,407,711	19,267,811	1,186,797	19,311,677	1,104,906	18,941,363	1,037,833	21,023,219	1,368,627
Sweden	7,8,510	34 95	742,747	38,355	827,515	31,111	400,000	30,012	840,771	60,511
Norway	34,440	1,033	13,035	610	65,599	2,999	62,423	8,576	104,251	6,234
Denmark	118,216	6,716	71,890	2,300	10,914	1,092	23,550	1,317	111,990	6,369
Prussia	1,418	1,566	76,41	2,801	31,007	1,099	34,343	9,017	11,792	1,427
Germany	20,423,444	1,193,718	29,920,427	1,700,987	22,632,904	1,398,407	26,492,600	1,793,48	27,876,013	1,746,693
Holland	9,001,938	701,36	10,347,640	890,433	11,242,0	971,710	13,084,848	1,122,337	13,620,141	1,194,011
Belgium	9,616	1,197	8,437	1,314	108,366	11,829	65,514	8,900	48,366	7,067
Portugal Proper	281,096	15,154	3,420	2,899	50,008	2,367	841,937	1,555	101,438	13,338
— Madeira	2,240	143	28,600	1,228	13,560	646	30,612	1,118	14,555	726
Spain and the Balearic Islands	26,178	2,147	10,400	771	86	4	99	7	30	6
— Canaries	2,300	131	1,900	95	685	53	850	00	1,800	848
Gibraltar	20,190	3,178	35,322	7,040	10,980	010	12,809	7,012	26,143	3,486
Italy and the Italian Islands	8,444,318	436,334	7,641,268	381,918	6,590,453	376,333	9,988,908	548,808	7,074,368	437,871
Malta	312,740	12,108	208,480	10,389	136,230	6,440	531,840	28,987	406,260	14,883
Ionian Islands	6,450	2,643	65,003	3,048	24,440	2,955	120,642	8,888	131,080	8,282
Turkey	11,000	680	1,900	50	1,551	110	110	110	110	110
Syria and Palestine	1,733,760	29,013	1,861,913	69,440	1,707,721	20,038	1,989,851	108,725	1,376,400	80,404
Egypt	58,600	6,000	120,280	10,219	177,850	11,028	321,714	29,900	464,120	29,603
Tripoli Tunis Algiers and Morocco	980	34	1,078	109	680	107	370	120	1,180	816
Western Coast of Africa	103	13	1,255	126	1,164	80	2,270	174	19,512	760
Cape of Good Hope			109	12			26	2		
St Helena and Ascension Island			2,500	126			340	34	35	11
Mauritius							4,267,653	316,530	6,800,762	438,821
East India Company's Territories and Ceylon	6,694,823	407,861	4,316,643	203,370	4,783,794	324,353	5,324,440	86,830	2,833,262	170,390
China							1,56			
Sumatra Java and other Islands in the Indian Seas	312,000	22,633	108,100	6,020	247,420	18,446	325,970	17,448	213,265	13,180
Philippine Islands	18,900	1,395	100	20	7,000	570	30,300	1,115	115	160
British settlements in Australia	7,238	280	9,411	505	11,960	593	11,433	672	4,920	375
— North American Colonies	807,907	10,376	960,790	8,024	210,960	9,913	194,779	6,488	204,260	11,883
— West Indies	14,411	833	4,773	485	8,640	391	5,884	455	22,754	2,700
Hays	220	30	2,2	20	1,009	110	300	602		
Duba and other Foreign West Indies	500	10	300	20	840	24	10	1	250	20
United States of America	317,307	19,063	67,194	3,045	112,529	6,453	107,443	8,092	126,806	8,524
Mexico	794,215	37,972	467,323	29,537	968,720	53,194	463,546	27,504	501,96	31,164
Costanica							11,000	705	12,020	1,610
Columbia	29,800	1,500	100	8			35,000	2,443		
Brazil	2,400	324	11,400	1,076	11,424	1,076	37,750	3,740	10,198	981
States of the Rio de la Plata	4,900	30			200	26	6,828	446	84,600	2,84
Chili	4,800	180	1,700	160	4,220	430	5,680	800	4,360	63
Peru			640	80	1,000	90			5,400	780
Islands of Guernsey Jersey Alderney and Man (foreign goods)	4,405	755	8,650	1,841	8,471	2,067	6,199	984	6,743	369
TOTAL	63,841,440	3,913,011	76,607,150	4,722,750	70,626,161	4,704,021	70,178,468	4,101,015	83,214,198	5,206,811

COTTON TWIST and Yarn Exported from the United Kingdom to the following Countries—(continued)

C O U N T R I E S	1836		1837		1838		1839		1840	
	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value
	lbs	£	lbs	£	lbs	£	lbs	£	lbs	£
Rue in	191,848	1,827,411	241,053	2,012,400	197,401	1,811,844	121,506	1,084,416	108,416	1,082,912
China	237,234	6,470	71,236	53,600	81,873	54,730	1,157,712	72,000	251,320	17,950
No way	131,352	9,218	19,000	10,444	24,114	10,495	315,463	11,445	314,615	1,699
Dutch	64,740	3,560	57,470	2,800	115,070	8,655	45,750	1,911	101,568	4,924
Coromond	15,293,478	1,868,049	34,717,077	2,177,832	35,643,276	2,764,330	34,705,121	2,369,890	41,760,588	2,461,292
Holland	138,224	1,129	15,043,072	1,340,188	217,318	1,864,529	31,151,215	17,291,900	21,774,473	11,412,111
Belgium	31,074	8,257	67,397	8,732	76,708	11,400	55,016	7,761	81,060	4,416
France	183,014	47,322	17,007	31,654	113,227	48,971	70,192	37,844	27,000	43,442
Portugal	309,540	22,650	323,268	23,613	305,468	16,778	488,405	31,638	468,222	20,119
Spain	2,240	1,113	1,840	756	17,620	810	20,240	8,727	13,174	942
Madeira	744	42	1,438	78	733	42				
Canaries	60	20	687	42	1,200	115	20	2	4,864	245
Italy	1,072	51	1,021	63	1,770	70	5,200	240	1,842	87
France	101,088	6,733	226,310	14,720	108,112	7,733	9,363	55,060	7,360	
Italy and the Italian Islands	8,273,003	504,374	8,713,498	477,892	12,829,923	626,562	8,038,742	381,629	11,429,034	210,640
Main	168,084	9,227	176,869	9,295	487,378	91,848	205,991	8,422	36,700	16,168
Ionian Islands	119,997	6,046	207,960	14,303	329,417	19,167	138,716	8,400	201,620	9,311
Mores and Greek Islands	0	0	1,800	100	27,240	1,220	1,405	1,405		
Turkey	1,881,556	112,000	3,027,538	180,225	4,685,509	241,009	2,150,616	108,012	3,000,000	1,277,400
Syria and Palestine	32,000	2,110			32,000	2,110	7,713,155	42,427	7,713,155	40,621
Egypt	300,140	20,436	660,000	41,372	290,000	14,000	60,016	1,070	24,000	1,640
Tripoli, Tunis, Algiers, and Morocco	3,065	205	5,282	395	2,903	220	82,392	2,165	1,000	68
Western Coast of Africa	22,572	1,267	9,214	890	14,600	584	4,169	5,143	8,500	1,070
Cape of Good Hope	30	2			56	4	13,657	7,000		
St. Helena and Ascension Island			10,400	468						
Mauritius			8,478,011	622,293	10,710,136	640,360	10,710,116	690,016	16,017,708	847,536
East India Company's Territories and Ceylon	3,158,870	219,532	1,973,968	103,969	3,851,865	217,947	1,869,660	1,073,673	1,774,300	8,718
China			127,820	7,938	581,880	27,532	132,100	9,206	94,700	4,959
Siam			13,735	791	15,408	749	14,000	990	2,480	36,870
Sumatra, Java, and other Islands in the Indus Seas	6,722	22,700	260,000	14,007	367,610	14,844	43,427	21,000	464,168	18,712
Philippine Islands	408,100	22,700	5,519	4,487	50,532	3,609	1,430	10,305	1,613	10,639
British Settlements in Australia	84,380	3,274			110	125	1,747	166	3,730	230
North American Colonies			6,441	200	6,441	200	1,747	166	2,490	491
West Indies			13,211	35	116,385	8,740	117,111	7,760	954,304	17,301
Haiti	202	21	6,250	300						
Cuba and other Foreign W. Indies	212,803	14,763	9,654,867	144,480	211,000	16,077	10,260	627	4,460	2,150
United States of America	477,830	38,628								
Mexico			188,282	12,438	1,380	00	500	170	000	90
Guatemala			21,306	48	21,306	48	119,500	14,000	200	268
Colombia	7,276	1	5,234	364	31,000	1,400	7,771	460	26,114	1,184
Brazil	4,600				8,200	01	17,400	1,140	84,840	3,330
State of the Rio de la Plata					33,000	1,600				
Chili	1,800	235			2,404	155	5,256	920	4,728	283
Peru	3,061	24	7,253	376						
Isles of Guernsey, Jersey, Alderney and Man (foreign goods)										
<b>TOTAL</b>	<b>88,191,046</b>	<b>6,180,841</b>	<b>103,405,136</b>	<b>6,555,012</b>	<b>111,596,002</b>	<b>7,431,100</b>	<b>10,668,442</b>	<b>6,688,103</b>	<b>11,864,023</b>	<b>7,101,309</b>

CULTIVATION, SUPPLY, AND MANUFACTURES OF COTTON

## DECLARED Value of Cotton Manufactures, except Twist and Yarn, Exported from the United Kingdom to the following Countries

COUNTRIES	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
	£	£	£	£	£	£	£	£	£	£
Russia	7 664	123 177	167 085	70 758	114 650	68 933	66 890	64 788	74 222	88 886
Sweden	2 331	1 727	1 621	1 650	2 174	2 489	2 489	2 330	2 330	2 330
Norway	13 532	3 041	13 063	16 827	19 481	20 967	15 727	13 540	12 856	12 856
Denmark	7 205	6,062	6,832	6 489	8 808	4 246	2,487	1,343	1,401	2,304
Prussia	160	7	419	419	271	9		25	368	622
Germany	1 145 968	1 499,775	1,440 849	1,500 777	1 409 031	1 170,065	1 170 418	1 065 917	1 044 806	1 100 140
Holland	897 350	847 048	538 548	508 802	641,150	602 903	714 053	634 041	675 996	820 278
Belgium			223 538	200 249	230 249	230 028	207 028	191,855	180 916	202 114
France	48 970	64,990	82,807	128 159	174 407	214 287	152 980	1 026	181 871	160 511
Portugal Proper	207 3 0	207 492	251 157	315 577	517 000	613,548	638,596	704 65	857 676	709 190
— Azores	17 500	29 714	29 627	31 575	22,810	23 870	31,267	28 007	20 644	24,560
— Madeira	15 254	8 327	13,305	17 726	11 109	24 869	22 050	18 110	14 909	10 922
Spain and the Balearic Islands	134 281	74 452	16,566	14,977	12 390	32,728	9 212	7 11	12 128	10 836
— Canaries	16 161	9,835	16 355	19 246	14 598	22 227	30 923	2 13	27 403	28 52
Gibraltar	248 800	294,205	221 520	320 616	460 341	402,271	703 418	600 208	761 650	624 422
Italy and the Italian Islands	1 079,920	1 137 713	1 128,809	1 017 087	988,247	1 453 190	1 049 700	1 379 092	817 970	1 161 008
Malta	60 997	36 054	38 323	123 977	41 105	64 098	41 210	9 574	45 831	64 063
Ionian Islands	3 845	16,343	8 872	37 271	38,399	41 294	4 020	33,523	20 713	30 823
Mores and Greek Islands	6,540	4 031	12,656	18,383	8 786	2 148	9 338	2 474	3,205	438
Turkey	268,808	633,410	726 693	831 221	973,377	1,118,330	772 626	1 182 22	838 102	743 14
Syria and Palestine						3 408	330	137 827	106 181	173 576
Egypt	50 114	86 016	84 733	66,170	102 069	184 169	150 681	1189 920	55 562	42 727
Tripoli Tunis Algiers and Morocco	1 3	807	220	10 788	24 217	19 423	46 821	16,250	37 305	46 367
Western Coast of Africa.	73,904	97 906	119 530	139 191	125 244	210 414	135 714	187 387	233 029	201 194
Cape of Good Hope	87,419	96,773	128 439	102 853	122, 17	189 696	144 439	206 024	120 001	183 576
Cape Verde Islands								9 463	1 238	2 487
St Helena								1 66	56	1 494
Ascension Island	9 427	1 582	1 240	2 443	4,628	933	679		2,769	
Mauritius	69,285	73,808	96 108	77 124	77 202	87 727	159 700	169 896	69 374	169 898
Isle of Bourbon					2 620					
Aruba					2 457	4 592				1 416
East India Company's Territories and Ceylon				650 21	1 386 951	3 960 243	1 528 093	1 805 149	8,214 74	8 023 656
China	1 190,540	1,330 470	1 173,630	1 62,908	291 853	470 101	273 287	248 427	866 7 5	2 38 383
Siam				14 440						
Sumatra, Java, and other Islands in the Indian Seas	196 619	61,549	218 077	872,764	979 639	166,194	248 518	87 040	117 105	267,674
Philippine Islands	37,552	74,606	85 762	63 846	83 846	44 125	29 994	29 994	104 7 4	111 066
British Settlements in Australia	69 947	68 741	113 285	83 7 3	90 150	77,250	194 427	95 534	173,186	173,186
New Zealand										3 181
South Sea Islands	125	145			440			55	1 022	1 022
British North American Colonies	470 273	441 436	404 457	283 968	462 146	665 420	42 471	407 672	710 221	508 291
— West Indies	618,311	658 360	701 00	760 340	1 025 611	1 057 404	9 6 441	969 671	1 341 728	1 224 609
Haid	183 474	334 991	260 730	218 223	198 075	180 477	87 429	131 725	2 9 290	171 682
Col and oth. Foreign West Indigs	373 870	791 429	332 853	255,311	421 235	50 127	453 497	212 996	459 108	401 491
United States of America	2 805 224	1 242 184	1 797 792	1 671 792	1 671 792	1 671 792	1 671 792	1 671 792	1 116 066	1 116 066
Mexico	494 990	100,670	217 453	59 055	212 546	122 928	221 718	20 134	403 222	46 916
Costa Rica			1 800	2 908	10 908					
Columbus	186,619	189 422	1 800	117 84	28,336	122 273	84 857	54 060	176 13	24 935
Brazil	702 061	1 111 039	1 087 563	1 483 864	1 590 708	1 761 789	1 483 437	1 621 699	1 621 699	1 621 699
States of the Rio de la Plata	186 617	424 03	305 663	483 744	348 888	456 5 0	404 109	486 923	433 128	414 121
Chili	454 174	400 967	311 651	626 658	446 470	514 238	108 076	21 232	869 927	41 2 7
Peru	344 313	150 644	217 840	126 886	492 880	436,238	26 4 11	221 671	434 180	491 227
Isles of Guernsey Jersey Alderney and Mau (foreign goods)	83 119	61 288	87 012	61 206	77 212	61 206	61 206	61 206	60 436	63 1 4
TOTAL	17 242 185	12 675 633	13 782,377	15 30 671	16 421 151	18 511 611	18 740 141	16 715 8 7	17 0 2 184	17 507 110



ANNEX 4. QUANTITIES AND DECLARED VALUE OF BRITISH COTTON MANUFACTURED GOODS EXPORTED TO VARIOUS COUNTRIES TO WHICH EXPORTED IN THE SAME YEAR

COUNTRIES TO WHICH EXPORTED	1911				
	Weight in Pounds		Declared Value	Tons and Yards	
	Yards	Yards	£	Pounds	Declt Value
Russia	1,838,305	1,838,305	5,410	1,308,147	10,470,605
Sweden	4,338	4,338	1,269	1,364,660	102,248
Denmark	64,774	64,774	2,209	608,164	30,277
Poland	117,290	117,290	2	178,872	6,709
Prussia	370	1,128	17,067	21,113	1,140
Germany	17,015,768	13,738,000	184,054	41,052,14,246	31,334,180
Austria	14,520,169	13,077,455	1,438	21,298,41,044	38
Holland	99,420	2,531,108	44,364	7,063	2,832
Belgium	1,416,778	2,016,116	109,063	176,744	7,172
France	2,284,377	12,523,829	17,127	209,520	3,141
Portugal	237,701	45,130	87	28,712	675
Spain and the Balearic Islands	237,701	40,734	747	4,411	38
Caribbean	93,195	120,787	2,054	4,854	240
Italy and the Italian Islands	16,105,500	15,725,783	15,077	80,310	425
Malta	28,922,812	27,472,313	41,970	11,710,231	487,54
Syria and Palestine	2,404,878	1,427,481	62	326,000	1,138
British Settlements in Australia	16,024,191	2,812,200	1,284	422,300	2,819
British Settlements in Africa	1,022,500	2,908,264	3,788	13,114,648	650,588
British Settlements in Asia	1,022,500	2,908,264	3,788	13,114,648	650,588
British Settlements in Europe	1,022,500	2,908,264	3,788	13,114,648	650,588
British Settlements in the Americas	1,022,500	2,908,264	3,788	13,114,648	650,588
United States of America	11,281,428	28,242,244	209,389	558,282	27,522
Other Countries	1,022,500	2,908,264	3,788	13,114,648	650,588
Total	421,834,32	332,240,852	1,248,700	123,295,210	7,265,968

SUPPLY AND MANUFACTURES OF COTTON



A. Y. EXPORTS OF COTTON AND DECIDED VALUE OF SPINNING MACHINERY EXPORTED FROM THE UNITED STATES IN 1915. (The Description of Goods and the various Countries to which they were exported in 1915 are given in the following table.)

COUNTRIES TO WHICH EXPORTED	White & Plain Cotton		Printed or Dyed Cotton		Woolens, Worsted, & Silk	Twist and Yarn		Total Declared Value		
	Year	Declared Value	Year	Declared Value		Declared Value	Pounds	Declared Value	1915	1917
Russia	1,134	21,100	1,060	8,434	9,927	18,438,794	1,023,168	1,013,990		
Sweden	605	1,605	11	1,141	1,139	1,130,010	43,148	49,254		
Norway	1,010	1,171	43	8,110	1,311	1,117,778	11,155	57,139		
Denmark	4,822	5,171	3	3,732	65	67,569	214,776	73,110		
France	1,248	20	2,111	97	1,4	81,872	111,2	11,414		
Holland	2,144	0	88,141	1,5	1,20	3,172,24	143,684	140,080		
Italian States	15,048,605	227,822	27,091,13	7,2	1,5,384	40,10,165	21,6,820	2,100,534		
Holland	13,732	21,5	1,418,23	25,460	23,224	21,818,92	1,294,14	1,842,805		
Belgium	2,25,725	41,741	1,24,270	4,3,1	50,91	3,190,971	180,116	251,571		
France	110	18,130	1,5,5,82	3,193	0,199	6,1243	76,697	177,086		
Portugal	20,973	212,812	15,858,97	2,411	12,809	255,117	2,310	614,982		
Spain	1,182,267	15,137	1,528	13,10	398	40,260	1,074	24,119		
Spain	413,144	6,005	20,936	6,481	247	860	80	13,362		
Spain and the Hawaiian Islands	412,117	7,378	157,743	3,554	30	744	118	11,787		
Spain	69,81	10,78	0,73,366	10,542	955	2,981	1,8	22,267		
Canaries	18,16,53	4,119	1,451,259	22,412	25,711	10,227	2,905	19,507		
Italy and the Italian Islands	27,47	411,438	24,6,861,8	454,417	36,702	12,5,165,1	634,207	1,48,336		
Malta	2,26,921	33,821	707,109	15,282	6,000	2,0,4,6	6,340	67,440		
Ionian Islands	5,6,74	80,120	2,588,12	4,938	638	836,630	37,391	169,537		
Morocco and the Gambia	78,74	1,61	1,009	40	127	1,188		1,188		
Turkey	4,00,163	7,56	47,204,127	924,996	8,183	5,930,328	279,01	1,800,922		
Syria and Palestine	20,7,412	281,38	6,166,69	101,3	1,455	2,4,6,81	135,419	609,48		
Egypt	6,6,30	87,169	1,738,41	30,925	7,517	22,450	8,921	127,023		
Abyssinia and Socatra	27,6,9	8,013	78,300	62	35		5,330			
Western Coast of Africa	1,1,848	19,884	10,4,27,5	20,441	1,190	2,654	415	223,330		
Coast of West Africa	4,230,67	66,254	5,144,441	164,141	1,382	17,289	802	174,262		
Eastern Coast of Africa	1,100	32						32		
Cape Verde Islands	41,871	617	18,631	308				925		
St. Helena and Ascension Islands	2,199	1,355	40,789	769	576	63	7	2,272		
Mauritius	4,000,16	61,41	2,126,752	77,479	8,665	370	30	133,065		
British Territory in the East Indies	1,374,821	2,601,37	23,5,681	74,023	21,647	16,923,946	890,810	4,210,323		
Southern Java and other Islands of the Indian Sea	11,91,301	160,422	8,484,091	7,111	5,17	2,1,40	13,111	459,24		
Philippine Islands	4,115,15	313,175	1,195,618	2,810	2,810	840	840	94,395		
Hong Kong and China	10,947,826	1,5,130	2,203,354	61,750	2,114	9,607,820	99,926	1,733,141		
British Territory in Australia	4,43,97	86,263	1,185,824	103,946	31,539	67,261	4,666	22,74		
Southern Sea Islands	482,049	0,11	27,375	1,882	84	496	17	29,74		
British North American Colonies	13,39,675	2,97,284	19,118,95	291,493	71,363	956,510	30,778	1,42,225		
West Indies	19,008,542	278,668	27,31,916	465,291	12,22	77,00	4,715	780,816		
Haiti	3,223,27	3,618	3,494,228	3,536	2,869	340	37	114,195		
Cuba and other Foreign West Indian Colonies	14,764,195	1,50,186	9,292,2,5	37,418	35,324	1,100,65	601,028	1,052,316		
Louisiana States of America	14,667,643	313,166	16,666,141	321,643	249,375	01,500	6,043	8,294		
Texas	40,159	49	112,442	1,933	340			8,294		
Mexico	2,011,157	49,182	0,604,13	186,315	8,808	31,060	1,106	244,845		
New Grenada, Venezuela and Ecuador	6,124,58	5,012	8,10,887	146,017	10,091	10,270	444	933,4		
Brazil	47,941,979	619,384	29,174,350	271,834	36,048	1,900	146	1,429,169		
States of the Rio de la Plata	7,157,739	112,127	2,590,075	15,664	17,611	8,149	94	277,306		
Chile	16,20,942	205,168	19,2,143	3,118	25,295	414	9	607,283		
Peru and Bolivia	8,493,17	1,3,690	14,658,742	272,58	21,318			419,776		
The Channel Islands	731,168	24,55	619,474	22,911	6,317			68,478		
<b>TOTAL</b>	<b>6,841,80</b>	<b>9,610,014</b>	<b>413,212,2</b>	<b>8,268,91</b>	<b>1,126,268</b>	<b>123,144,805</b>	<b>6,463,235</b>	<b>20,119,331</b>	<b>25,209,827</b>	<b>23,330,080</b>

CULTIVATION, SUPPLY, AND MANUFACTURES OF COTTON 501

CLASSIFICATION of the Exports of Articles of Cotton Manufacture, distinguishing the Quantities of each shipped to each of the various Markets of the World, from London, Liverpool, Bristol, Hull, and the Clyde, from the 1st of January to the 31st of December, 1847, compared with the same Periods of 1846

COUNTRIES TO WHICH EXPORTED	Cotton Twist and Yarn				Thread and Sewing				Fine Calicoes		
	1846		1847		1846		1847		1846	1847	
	£	lbs	£	lbs	£	lbs	£	lbs	yards	yards	
British North America.		78 872		630 739		114 697		65 798	12 330 019	13 01 505	
British West India		27 419		31 848	125	44 663		39 808	13 023 270	11 8 265	
Madras and Cochin		18 213, 192		11 976 020		27 022		7 011	126 063 310	4 8 1 161	
Bombay		3 753 011		3 092 946		27 397		130, 703	90 9 4 457	41 1 0 354	
Ceylon		60 000		63 8 90		8 777		9 061	4 030 73	7 235, 04	
New South Wales		5 038		9 030		8, 692	140	5, 379	1 025 489	1 831 112	
Van Dieman's Land		4 230		1 456		404		1 146	404, 681	71 4 7	
South Australia		4 022						1 063	263 572	151 14	
Swan River									40, 841	10 776	
New Zealand				50				736	10, 123	113 509	
Mauritius		100				10 646		4 288	2, 944 604	1 877 345	
Cape of Good Hope and											
Algoa Bay		8, 030		78, 618		5 574		4 773	3, 822 145	4 384 867	
St. Helena		8 698		1 148					25 040	63 711	
Gibraltar and Jersey		83 060		101 341		109, 594		40 502	7 920	57 900	
Cibraltar									13, 013 808	7 533, 425	
Malta and Ionian											
Islands		1 007, 540		901 419		10 320		206, 530	9 233, 858	4 451 563	
France		167 394		73 606		70 326		30 351	1 914 478	24 223	
Holland		24 184 817		16 052, 688		62 259		83 444	1 750 260	10 2 0 500	
Belgium		5, 133 795		3 236, 685		66, 038		45 015	1 121 008	1 344 742	
Germany including											
Hanse Towns		49, 344 088		38 759 016		264 615		206, 530	17 273 757	14 060 113	
Denmark		344 021		488 053		2, 343		63 81	620 398	36 551	
Sweden and Norway		3 216 574		2 394 141		20 499		37 67	980 764	843 337	
Russia		14, 075 370		12, 687 104		899 247		19 185	22 571	1 166 587	
Spain		990		5 630		1 500		5 799	362 836	11 102	
Portugal		884 253		771 505		75 219		130 245	24 144 010	20 840 740	
Naples and Sicily		6 211 015		3 941 906		79 083		1 90 683	7 302, 308	3 0 46, 117	
Austria, including Trieste											
and Venice		4, 736, 025		2, 664 380		72, 731		96, 243	15, 828 661	5 219 640	
Tuscany and Sardania											
including Genoa and											
Leghorn		5, 337, 307		9 034 344		150 325		148 967	20, 248 614	8, 494 4 1	
Papal Territories.		2, 031 744		1 587 537		2, 915		2 090	2, 002, 355	0 5 1	
Madeira		2, 019		44		5 360		1 342	342 4 5	411 300	
United States		41 121		77 290		508 327	271	984 01	11 512, 12	43 701 1 2	
Mexico		66 178		29 863		39 22		15 000	1 268 690	2 0 1 423	
St. Domingo		2 849		29 863		10 050	80	22 428	1 856 019	1 561 006	
Cuba		10 063		7 650		79 003	280	150 644	5, 500 1 0	3 2 2 01	
St. Thomas		1 790		4 089		35, 521		65, 00	7 572 999	1 341 840	
Hondur s		29 35		57 649		33, 591		11 399	7 968 4 6	2 019 2	
Colombia		71 558		28 037		91 777		56 7 5	8 48 8	5 50 491	
Brazil		27, 304		96, 784		491 387		165 193	60 146 517	31 5 1 756	
La Plata						31 152		30 4	4 255 26	8 02 813	
Chili and Peru				3 1 29		264 26 5		213 730	26, 130 744	27 11 61	
Syria and Palestine		1 936, 340		1 629 979		441		1, 409	9 130 147	8 4 3 3	
Turkey and Greece											
including Syria and											
Smyrna		7 492 820		6, 111 448		14 454		44 986	44 182 533	30 787 5 2	
Egypt		775 847		381 817		130		10 545	8 0 160	6 011 270	
China		4 111 108		4 344 180		300		1 33	60 894 631	53 113 99	
Java Singapore and											
Philippine Islands		1 150, 572		2 126 040		51 560		46 2 8	25 039 1 0	3 778 437	
Madagascar and Bour											
bon											
West Coast of Africa.		953		4 811		3, 304		993	1 01 841	2 3 2 704	
Ascort		43 780		19, 530		2 180		1 040	1 066 070	1 890 161	
Tonaffe and Canary											
Islands of Africa includ		2 924		1 086		6, 367		6, 367	958, 979	479 732	
ing Algiers				259 294		1 120		36 0	99 306	1 1 400	
Cape V rd Islands									163 5	1 625 236	
South Seas		15 756				5 804			17 5 7	1 8 0	
TOTAL		157 402, 852		118 871 350		4921		3, 541 041	67 50	8 249, 374	608 703 759

CLASSIFICATION of the Exports of Articles of Cotton Manufacture, distinguishing the Quantities of each shipped to each of the various Markets of the World, from London, Liverpool, Bristol, Hull, and the Clyde, from the 1st of January to the 31st of December, 1847, compared with the same periods of 1846—(continued)

COUNTRIES TO WHICH EXPORTED	Printed and Dyed Calicoes		Cambrics Muslins Lawns and Lenois				Other Plain Cotton Goods			
			1846		1847		1846		1847	
	yards	yards	£	yards	£	yards	£	yards	£	yards
British North Am area	16,340,317	14,976,496	77	368,023	834	214,715	7	79,432	4	157,863
Bristol West Indies	19,710,147	14,564,168	64	502,063	120	413,570		73,769		50,938
Madras and Calcutta	14,296,009	11,529,462	40	454,361		484,103		68,133		104,186
Bombay	5,960,539	6,946,480		200,390		192,023		14,679		3,168
Ceylon	604,190	515,907		23,282		1,537		1,848		2,176
New South Wales	2,351,119	1,969,207		183,371	310	231,472		104,104		223,304
Van Diemen's Land	598,743	747,275		68,934		80,299		51,603		36,179
South Australia	297,611	171,061		39,409		10,920		26,965		3,733
Swan River	48,739	9,596		3,279		406		3,600		
New Zealand	3,70,936	88,478		1,540		11,784		2,487		3,359
Mauritius	3,521,976	1,794,974		95,381		29,596		20,881		6,611
Capo de Good Hope and Algoa Bay	2,064,567	2,869,533		259,472		63,446		109,890		331,707
St Helena	26,474	32,496		2,280		1,984		1,232		2,447
Guernsey and Jersey	3,710	11,134				3,456		1,670		
Cibraltar	5,741,791	5,043,520		22,188		109,204		3,702		1,706
Malta and Ionian Islands	2,05,078	2,496,269		26,004		9,761		819		1,820
France	1,604,253	1,263,764		44,862		39,292		111,269		87,473
Holland	11,742,871	10,496,456		64,135		77,638		36,314		43,218
Belgium	543,939	632,182		105,464		109,069		128,438		111,029
Germany including Hanse Towns	76,063,609	31,422,346		313,107		338,784		724,759		814,911
Denmark	48,610	176,568		3,909		3,448		3,448		3,448
Sweden and Norway	434,699	361,811		83,639		39,677		4,386		18,924
Russia	364,955	109,004		97,371		24,167		4,899		5,820
Spain	43,783	19,116		38,028		401		401		
Portugal	11,775,007	11,779,022		8,811		23,327		1,710		34
Naples and Sicily	4,607,248	4,567,255		5,020		8,900		210,629		1,9,337
Austria including Trieste and Venice	3,567,431	3,102,705		20,472		1,080		13,491		28,974
Tuscany and Sardinia including Corsica and Elba	1,351,422	7,517,050		20,757		9,466		95,763		307,391
Ionian Territories	3,400	3,112,756		2,890		7,424		4,304		9,960
Madeira	454,439	355,919		6,523		197,356		1,998		115,792
United States	1,032,181	31,613,623	7	629,648	631	1,086,136		345,143		1,684
Mexico	5,156,633	1,791,428		81,957		197,356		7,720		
St Domingo	606,369	3,012,109		1,847		13,008		11,080		5,324
Cuba	4,614	5,907,963		106,373	22	97,483		1,180		5,674
St Thomas	11,583,600	8,292,633		11,452	4	43,713		1,140		
Honduras	14,454	1,178,029		12,117		2,698		9,843		2,900
Colombia	10,227,707	7,606,692		92,115		97,84		31,177		7,695
Brazil	36,984,750	43,311,119		437,564		473,133		181,777		
La Plata	1,18,456	5,450,961		61,312		167,368		99,559		
Chili and Peru	20,709,811	18,116,246	906	38,796		10,400				
Syria and Palestine	3,286,831	4,990,247		1,650						
Turkey and Greece including Syria and Smyrna	1,213,049	27,817,487		216,045		118,118		3,420		9,913
Egypt	653,902	1,391,744		80		12,000		49		
Greece	2,660,494	2,109,217						9,813		79
Java Singapore and Malacca	11,799,997	9,351,413		214,240	59	7,464		25,984		
Madagascar and Bourbon	4,600									
West Coast of Africa	2,139,621	1,048,579		49,415		23,120		484,184		467,611
Asia	811,616	340,000		24,180		1,140		10,070		40
Pacific and Cape of Good Hope	394,847	7,90,440		9,181		10,434		10,973		36,740
Coast of Africa including Mozambique	120,000	18,000,000								1,160
Malta	2,226	21,842				360		514		
North Sea	791,631			8,800						
<b>Total</b>	<b>30,209,000</b>	<b>312,607,000</b>	<b>178</b>	<b>4,091,000</b>	<b>1,774</b>	<b>6,116,000</b>	<b>7</b>	<b>29,034,000</b>	<b>4</b>	<b>33,540,000</b>

CLASSIFICATION of the Exports of Articles of Cotton Manufacture, distinguishing the Quantities of each shipped to each of the various Markets of the World, from London, Liverpool, Bristol, Hull, and the Clyde, from the 1st of January to the 31st of December, 1847, compared with the same Periods of 1846—(continued)

COUNTRIES TO WHICH EXPORTED	Lace Gause &c		Counterpanes and Quilts.		Cotton Hosiery		Caps and Gloves						
	1846		1847		1846		1847						
	£	yards	£	yards	£	number	£	dozen					
British North America	263	1,914,651	1734	457,881	47	16,731	3	20,217	254	69,608	0	99	47,371
British West Indies	164	317,454	96	178,418	13	23,155	4	21,467	2125	24,177	3	06	11,354
Madras and Calcutta.		215,252		273,220		3,626		2,221	39	5,965			12,330
Bombay		31,147		18,307		433		214	214	3,594		10	4,105
Ceylon		6,570		149,009		18		18	200	269		3	1,743
New South Wales		185,723	908	267,011		17,428		17,023	17	26,777		220	34,363
Van Diemen's Land		150,247		93,328		3,650		3,176		11,015			16,231
South Australia		66,431		37,800		4,027		1,784		3,152			3,860
Swan River						396				60			40
New Zealand						24		357		60			1,372
Mauritius		45,710		24,723	35		11	1,490	20	3,71			3,830
Cape of Good Hope and Algoa Bay		62,384		12,065		19,857		5,911		7,380			9,220
St Helena						128		36		418			277
Guernsey and Jersey													
Gibraltar		341		25,178		683		225	5	2,055			2,104
Malta and Ionian Islands		20,723		50,359		1,173		734		151			567
France		13,700,090		5,097,337		400		894		8,3			737
Holland		12,813,178		12,427,452		271		301	113	8,30	925		6,659
Belgium		7,879,453		2,993,406		2,993,406		8	290	2,075			2,081
Germany including Hanse Towns.		36,681,854		30,913,290		297		1,040	3300	2,710	4,007		2,418
Denmark		39,185		65,43		78		123		213			328
Sweden and Norway		112,869		73,148		590		791	1723	1,490	3,042		2,376
Russia		713,162		1,620,723		145		145		925			
Spain				9,315		80				21-			546
Portugal		40,918		14,092		1,251		1,615		56			80
Naples and Sicily		483,179		224,23		186		545		126			430
Austria, including Trieste and Venice		64,940		222,676									
Tuscany and Sardinia including Genoa and Leghorn		225,905		9,920		575		514		1,027			2,211
Papal Territories		187,110		7,836		29		180		1,128			1,104
Madaira		16,410		3,000		17,881		17,161	3	73,620	338		93,392
United States	3	6,629,183	375	6,829,344		17,881		17,161	3	73,620	338		93,392
Mexico		20,905		20,679		30		1,440		2,685		215	44
St Domingo		5,80		11,674		3,565		1,068	20	12,615			21,062
Cuba		340,495		1,159,651		1,560		4,633		531	100		1,175
St Thomas		211,429		101,636		63		411		1,678			1,049
Honduras		37,600	195	159,228		84		371		3,516			17,048
Colombia		245,247		4,570		83,31		3,516		5,215			11,578
Brazil		283,220		533,964		90		755		41,707			13,732
La Plata				52,18						100			
Chili and Peru		432,698		585,098									
Syria and Palestine													
Turkey and Greece including Syria and Smyrna		128,214		40,488		232		163		1,500			909
Egypt		2,223											
China		3,060		111,917		360				842			715
Java Singapore & Philippine Islands		42,025		75,813		9		300		1,264			313
Madagascar and Bourbon		81		51,847						291	60		297
West Coast of Africa		13,040		480		9		60		89			143
Ascotie		7,046		2,037		315		376		587			685
Toucheff and Canary Coast of Africa includ ing Algiers									55				9
Cape Verde Islands													
South Seas		6,960								172			
TOTAL.	432	63,738,066	2441	84,672,918	115	114,544	79	187,330	1012	34,929	90,815		327,626

CLASSIFICATION of the Exports of Articles of Cotton Manufacture, distinguishing the Quantities of each shipped to each of the various Markets of the World, from London, Liverpool, Bristol, Hull, and the Clyde, from the 1st of January to the 31st of December, 1847, compared with the same periods of 1846—(continued)

COUNTRIES TO WHICH EXPORTED	Cotton Stawls and Handkerchiefs, Plain and Printed				Tapes Bobbins &c				Cotton and Linen Cloth Mixed				Cotton Goods Unmixed		
	1846		1847		1846		1847		1846		1847		1846	1847	
	£	dozen	£	dozen	£	doz	£	doz	£	yards	£	yards	£	£	
British North America	2,404	6,790	2,067	5,684	80	130	130	20	54	80	49	69	67	26,600	69,601
British West Indies	1,394	40,728	1,241	32,231	144	1,430	147	995	1,30,465	71	12,202	36	704	18	198
West Indies and Galena.	45	3,600		1,700		79		1,015	2,546		54	2,211	3	3,385	
Bombay	40	1,084		1,700		1,700		1,238	1,238		910	1,160	508		
Ceylon		160		2,350				880			910	321	154		
Isle of S. Wales	400	4,507	204	5,354	66	1,352	51	608	7,231	5	2,527	3,282	6,514		
Van Diemen's Land		1,424		1,401		510		8,800			54	283	1,419		
South Australia		1,127		136							2,120	97	80		
Swan River		126									50	27			
N. W. Zealand		54		170								69	436		
Mauritius	158	1,452		323					2,160		410	619	679		
Cap. of Good Hope and Algon Bay		19,363		10,204		1,04		5,002	2,800		14,686	1,015	1,708		
St. Helena		106										43	45		
Canton and Jersey															
Gibraltar	70	6,588		21,200				401	4,007		2,040	613	1,021		
Malta and Ionian Islands	50	868		1,734		70					300	100	73		
France	15	2,640		2,620					1,788		10,521	897	1,900		
Holland		616		353		500	10	220	1,538		2,74	264	734		
B. Igion		6,008		8,154	30	400		1,109			6,002	411	364		
Germany including Hanse Towns		737		575	457	353		28	3,662		4,340	289	268		
Denmark						128		358							
Sweden and Norway	1	148		197	198			358				310	181		
Russia		684		1,171					21,400			61	46		
Spain		188		2,472		1,306			2,374		398	10	3,385		
Portugal		8,504	00	2,405					3,166			407	886		
Naples and Sicily		18,348		20,772					8,050		24,468	631	288		
Austria including Trieste and Venice		30,623		32,215							1,420	319	282		
Tuscany and Sardinia including Genoa and Leghorn		21,162		31,162					40,054		18,718	361	694		
Papal Territories		22,762		54,973					4,400		4,350	29	81		
Madeira		2,764		2,178					163		152	176			
United States.	340	37,475	5,350	101,669					207,996		805,978	13,325	43,206		
Mexico		42,775		14,689		10			68		19,000	43	537		
St. Domingo		2,356		5,927		6,512			1,076		953	769	283		
Cuba	206	33,10	745	23,80					101,809		21,538	1,271	4,003		
St. Thomas		508	18,584	513	10,812		100	201	183,215		264,797	1,906	2,435		
Honduras	110	13,894	313	2,078	123				12,540		49,091	1,550	1,851		
Central America		18,361		21,796					99,732		66,470	868	1,396		
Brazil	3,625	101,270		168,511		440		16	1,65,441		257	5,507	3,484		
Paraguay		5,131	346	2,276					25,170	10	7,720	13	1,036		
Chili and Peru	2,216	23,770	270	23,576		1,260			40,663		10,646	2,849	3,844		
Syria and Palestine		1,842		6,572								128			
Turkey and Greece including Syria and Beyrout		9,962		18,354					1,003		16,249	149	691		
Egypt		2,078		1,442								14	43		
China									55			23	233		
Java, Singapore and Philippine Islands		3,826	100	378	10							208	170		
Madagascar and Hour bon															
West Coast of Africa.		8,673		11,577		400		60	18,000			644	88		
Azores		8,537		1,671									247		
Canary Islands and Azores		8,383		8,330		1,125		543				485	36		
Canary Islands and Azores		250							1,000						
Cap. of Good Hope and South Africa		490		45									45		
TOTAL	11,361	547,275	16,110	714,591	1,024	18,130	1,510	11,306	41,283	128	1,863,786	109,113	1,020		

## MISCELLANEOUS STATEMENTS OF THE PRICES AND THE PROGRESS OF COTTON FABRICS

MR BAINES, who has with great pains collected valuable information, in his work on the "Cotton Manufactures of Great Britain," states that "a very good hand weaver, twenty five to thirty years of age, could weave two pieces of nine-eighth sheetings per week, each twenty-four yards long, containing 100 shools of weft in an inch The reed of the cloth being forty-four Bolton count, and the weft and warp forty hanks to the pound In 1823, a steam loom weaver, about fifteen years of age, attending two looms, could weave *seven similar pieces* in a week

"In 1826, a steam-loom weaver, about fifteen years of age, attending to four looms could weave *twelve similar pieces* in a week, some could weave *fifteen pieces*

"In 1833, a steam-loom weaver, from fifteen to twenty years of age, assisted by a girl about twelve years of age, attending to four looms, could weave *eighteen similar pieces* in a week, some can weave *twenty pieces*."

The progressive improvements thus given by Mr Baines have continued to the present time, and "now (1845) a steam loom weaver, about fifteen years of age, attending to two looms, can weave eleven pieces of the same cloth, and a steam loom weaver sixteen to twenty years of age, assisted by a girl about fourteen years of age, attending to four looms, can weave twenty-two similar pieces in a week"

Mr Porter, in his estimable and most instructive work on the "Progress of the Nation," gives the following statements

TABLE showing the effect which successive improvements have had in diminishing the price of cotton cloths, the same article—a piece of calico known in the trade as 72 $\frac{3}{4}$ —is given throughout.

YEARS	Prices paid for Weaving			Prices paid for Cottons			Selling price of 72 $\frac{3}{4}$ Calicoes			Earnings of the Weavers per Week			YEARS.	Prices paid for Weaving			Prices paid for Cottons.			Selling price of 72 $\frac{3}{4}$ Calicoes			Earnings of the Weavers per Week		
	s	d		s	d		s	d		s	d			s	d		s	d		s	d		s	d	
1814	5	0		2	6		1	8	0					1820	1	4	0	63			5	9			
1815	8	0		1	8		1	5	6					1830	1	4	0	64			8	3			
1816	2	6		1	5		1	3	0		14	0		1831	1	4	0	65			8	0		12	0
1817	2	6		1	10		1	0	7 $\frac{1}{2}$					1832	1	4	0	73			8	0			
1818	2	6		1	10		1	1	1 $\frac{1}{2}$					1833	1	4	0	94			8	6			
1819	2	0		1	3		0	17	8					1834	1	4	0	10			9	0			
1820	2	0		1	1		0	15	9 $\frac{1}{2}$					1835	1	4	0	10			9	3			
1821	1	8		0	11		0	15	9 $\frac{1}{2}$		14	0		1836	1	4	0	92			10	0		12	6
1822	1	8		0	10		0	14	6 $\frac{1}{2}$					1837	1	4	0	7			8	3			
1823	1	8		0	10 $\frac{1}{2}$		0	14	5					1838	1	2	0	7			8	3		11	0
1824	1	8		0	10 $\frac{1}{2}$		0	14	0					1839	1	2	0	7 $\frac{1}{2}$			8	0			
							0	14	0					1840	1	3	0	6			7	3			
1825	1	8		1	2			10			13	0		1841	1	2 $\frac{1}{2}$	0	6 $\frac{1}{2}$			7	0		9	6
								0	18	6				1842	1	1 $\frac{1}{2}$	0	5 $\frac{1}{2}$			5	0			
1826	1	6		0	8		0	10	6					1843	1	1 $\frac{1}{2}$	0	4 $\frac{1}{2}$			5	0			
1827	1	6		0	7 $\frac{1}{2}$		0	10	3					1844	1	1 $\frac{1}{2}$	0	4 $\frac{1}{2}$			6	9		11	0
1828	1	4		0	7		0	10	2																

Short time and six weeks turn-out."



"The reductions made previously to the time embraced by the foregoing table are shown by the following list, which was given into the House of Commons in 1812 on occasion of the inquiry then made into the effects of the orders in council, issued in 1808, in retaliation of the Berlin and Milan decrees of Napoleon

PRICES paid for Weaving Twenty-four Yards of Cambric at Stockport, in Cheshire

YEARS	Value	YEARS	Value	YEARS	Value
1809	23	1806	15	1810	13
1809	19	1807	13	1811	10
1804	15	1808	12	1812	10
180	18	1809	12		

"The quantity of twenty-four yards above stated is as much as a good workman will produce of this description of cloth in a week. The low wages paid for making the same in the latter years, when every article of provisions was excessively high in price, and when even at these insufficient rates, but little employment was to be had, caused great and wide spread misery among the manufacturing population."

The following statement of the progress of the power-loom is taken from Mr Baines' "History of the Cotton Manufacture" —

"In 1813 there were not more than 2400 power looms in use, yet this was enough to alarm the hand-loom weavers, who, attributing to machinery the distress caused by the orders in council and the American war, made riotous opposition to all new machines, and broke the power-looms set up at West Houghton, Middleton, and other places. Nevertheless, the great value of the power-loom having now been proved, it was adopted by many manufacturers, both in England and Scotland, and it will, no doubt, in time supersede the hand loom. The rapidity with which the power-loom is coming into use is proved by the following table, the particulars of which were stated by R. A. Slaney, Esq. M.P., in the House of Commons, on the 13th of May, 1830, and which rest on the authority of Mr. Kennedy

NUMBER of Power-looms in England and Scotland

COUNTRIES	1820	1825
	number	number
England	12,100	45,000
Scotland	2,000	10,000
TOTAL	14,100	55,000

"This number would appear to have been somewhat under-rated. Dr. Cleland states that in 1828, the Glasgow manufacturers had in operation in that city and elsewhere 10,783 steam-looms, and 2060 more in preparation, total 12,843. He supposes there was an increase of ten per cent. between 1828 and 1832, which would make the number 14,127 in the latter year. This is independent of other parts of Scotland, unconnected with Glasgow. In 1833, evidence was given before the Commons committee on manufactures, commerce, &c. that, in the whole of Scotland, there were 14,970 steam looms. We may therefore safely take the number of power looms in Scotland at the present time (1835) at 15,000.

In England, the great increase took place during the years of speculation, 1824 and 1825, and comparatively few power loom mills were built betwixt that time and 1832. But in 1832, 1833, and the former part of 1834, the trade has been rapidly

extending many mills have been built, and many spinners have added power-loom factories to their spinning-mills

“Mr W R Greg an extensive spinner and manufacturer at Bury gave evidence before the select committee of the House of Commons on manufactures &c in August, 1833, that the number of power-loom had very materially increased of late years in and about Bury, and also at Stockport, Bolton, Ashton, and in Cheshire He stated that he did not know any person who was then building a spinning mill without the addition of a power loom mill

“Mr Kennedy’s estimate for 1829 was probably too low for England, as well as for Scotland at all events there are good reasons for believing that there must now be 85,000 power looms in England This conclusion is deduced from a computation of the number of workmen employed in power-loom weaving founded on actual returns, obtained by the Factory Commissioners from the cotton-mills in Lancashire and Cheshire It is also supported by the calculations of Mr Bannatyne, and Messrs Samuel Greg and Co, the spinners and manufacturers of Bury At the present time (1835), the machine-makers of Lancashire are making power looms with the greatest rapidity, and they cannot be made sufficiently fast to meet the demands of the manufacturers. The result we have arrived at is as follows —

*Estimated Number of Power-Looms in Great Britain in 1833.*

In England	—	85 000
In Scotland		15 000
Total	—	100,000

“While the number of power looms has been multiplying so fast, the hand-loom employed in the cotton manufacture are believed not to have diminished between 1820 and 1834, but rather to have increased In the former year they were estimated by Mr Kennedy at 240,000 In 1833, Mr Grimshaw, a spinner and manufacturer of Colne, gave his opinion before the committee of the Commons on manufactures, &c, that the number of hand-loom cotton weavers in the kingdom was about 250 000 whilst Mr George Smith, manufacturer, of Manchester, estimated them at only 200 000 In the year 1834, several intelligent workmen and manufacturers from Glasgow gave evidence to the Commons’ Committee ‘On Hand-Loom Weavers,’ that there were 45,000 or 50,000 hand-loom cotton weavers in Scotland alone

“Since the publication of Mr Baines’ volume, returns have been made by the inspectors of factories of the number of power-loom actually in use in factories at the end of the year 1835, in each county of Great Britain and Ireland From these returns, an abstract of which we have given, it appears that the total number of self-acting looms in the United Kingdom employed for weaving cotton, was at that time 109,626, thus proving the accuracy of the foregoing calculations

“It does not appear likely that any considerable addition will in future be made to the number of hand looms employed for cotton weaving, whereas the machine-makers of Lancashire have at different periods been engaged to the full extent of their power in constructing power-loom, so that their number increases continually We should be wrong, however, if we inferred that hand-loom are lying unemployed Power-loom have not hitherto been found generally applicable to the production of fine cloths, or what are called fancy goods The

demand for these fluctuates considerably, and is at times greater than can be readily supplied. In the report of the select committee of the House of Commons, appointed in the summer of 1834, to examine the numerous petitions presented by the hand loom weavers, we find a statement given in evidence by Mr Makin, a manufacturer of Bolton, to the following effect —

“ I know that there is at present no surplus of weavers. I go nine miles from the seat of my manufacture on one side to get weavers, and I am putting out work nine miles across the country in another part to get weavers, and if I knew where I could get a certain description of weavers, by going nine miles another way, I should go. But it is a strange fact, that, whilst the demand for hand-loom cloth is greater than the production yet the wages do not rise — and in about two months from this time (July, 1834) I know, from the experience of past years, that there will be demands for thousands of weavers more than can be obtained ”

Mr Porter observes—

“ The fact stated by Mr Makin, although seemingly at variance with the ordinary law of demand and supply, may admit of this solution,—that, when they can be furnished within a certain limited price, hand-loom cloths meet with an extensive sale, but that, when that limit is passed other goods of home production, or similar goods of foreign make come into successful competition with them, so that the manufacturers are not enabled by the most extensive demand, to increase the rate of wages paid to the weavers ”

Mr Stanway, who was under the direction of Mr Cowell, one of the Factory Commissioners appointed to collect information as to the employment of children in factories, states that—

The subsequent calculation does not aim at fixing the whole number of operatives dependent upon the cotton trade for subsistence, but only of that part of the operative body which earns a livelihood in cotton factories *moved by power*, and is employed in carrying on the preparing, spinning, weaving, and accessory mechanical departments within the walls of them.

It does not comprehend hand loom weavers, printers, bleachers, dyers, cotton-thread lice makers (an enormous and growing branch of the cotton manufacture), and many other branches of manufacture, either arising out of, or immediately dependent upon the spinning of cotton by power. It comprehends those operatives alone who habitually work in cotton factories. It shows their body to consist of 212,800 persons, and to earn annually the enormous sum of 5,777,434*l*.

“ The total quantity of cotton consumed in the spinning of yarn in Great Britain, in 1832, as stated in Burn's Commercial Glance, was 277,260,490 lbs, and of this quantity 27,327,190 lbs was consumed in Scotland, leaving for the consumption of England 249,933,300 lbs ”

“ The nett loss of cotton in spinning is estimated variously by different individuals. In the calculations of Mr Kennedy, made use of by him in a paper published in the ‘ Transactions of the Manchester Literary and Philosophical Society ’ it is taken at 1½ oz per lb while Montgomery, in his *Theory and Practice of Cotton Spinning*, computes it at 1¼ oz and Burn at 1¾ oz, but as the amount taken by Mr Kennedy is that which appears to be generally considered correct, it is adopted in these calculations ”

“ If then, from the quantity given above, we deduct 14 oz per lb, or 23,431,253 lbs, we shall have the total weight of yarn produced 226,529,047 lbs ”

The average number of hanks in each pound of yarn spun is considered, by apparently a majority of persons conversant with the subject, to be forty. Montgomery takes the average counts spun in Great Britain at fifty, which, taking into account the

finer average numbers spun in Scotland than in England, would fix the counts nearly as above stated

"The returns made to the Lancashire forms of inquiry, as given in previous tables, show an average of finer counts than forty, but, as the returns were better made from the fine mills than from the coarse, and from Manchester, where the finer yarn is spun, than from the country, it is evident that lower numbers ought to be taken than those shown in the returns, and, as the general opinion appears to be in favour of forty, this average is adopted

"Three mills, in different situations, and of average capabilities, made a return of the quantity produced by them in the month ending the 4th of May, 1833 and, as the average counts of the whole were 39 98 hanks to the lb, and as they also gave the number of hands employed in spinning during that month, and the duration of their labour, they furnished data from which may be easily calculated the total number employed in factories in England in preparing and spinning cotton

"In the mill of the first, 344 persons in the spinning department, working 276 hours, produced—

18,000 lbs of Nos 30 to 32  
18 000 lbs of Nos 38 to 42  
2,400 lbs of Nos 150 to 170

"In the second mill, 245 hands, working 270 hours, produced—

1,795 lbs of No 12.  
4 285 lbs of No 22  
33,838 lbs of No 40

"And in the third, 110 hands, working 286 hours, produced—

16,700 lbs of No 40

"The average counts of the three being, as before stated, 39 98, and the produce 95,018 lbs

"The total number of hours worked will therefore be  $344 \times 276 + 245 \times 270 + 110 \times 286 = 192,554$ , and the produce of each person per hour,  $\frac{95,018}{192,554} = 0.49,346$  lbs

"The usual estimate of 300 working days per annum of  $11\frac{1}{2}$  hours each, or sixty-nine hours per week, would give  $0.49,346 \times 11.5 \div 300 = 1.702.437$  lbs, the produce of each person per annum, and  $\frac{1.702,437}{12.769 \frac{2}{3}} = 133.045$ , the number of persons employed in the preparation and spinning of cotton in England

"On examination of supplement (Z\*) it will be seen that, in the 67,819 persons of whom returns were made to the commission, there were 42,401 engaged in preparing and spinning cotton, 23,920 in the weaving department, and 1498 as engineers, mechanics, roller-coverers, &c

"If, then, the same proportions are taken as existing in the total number of cotton-workers which are found in the returns made to the Lancashire forms of inquiry, the number of persons engaged in the manufacture of cotton-cloth in factories will be 75,055, and of those employed as engineers, &c, 4700, making, with the 133,045 in the spinning department, a general total of 212,800 persons engaged in cotton-factories

"Which total number of 212,800 persons may be divided and distributed, by adopting the proportions given in the returns made to the Lancashire forms of inquiry, so as to show the probable number of persons employed in each of the eight branches or departments of cotton working, and the aggregate amount of their net earnings per month "

\* Statement of the distribution of 67,819 hands into eight different branches or departments of cotton working, is given in a previous page of this official Supplement

EMPLOYED IN	Adults		Children under Eighteen Years of Age					
	Males	Females	Males			Females		
			In the direct employ of Masters	In the direct employ of Apprentices	Employers uncertain	In the direct employ of Masters	In the direct employ of Apprentices	Employers uncertain
	number	number	number	number	number	number	number	number
Cleaning and spreading cotton	1,330	9,419	251	3	31	340	1	13
Carding	10,561	15,682	4,983	401	73	8,099	498	163
Mule spinning	22,727	31,168	8,038	28,634	257	1,456	8,063	82
Throatle spinning	93	3,080	140	23	100	2,303	13	166
Reeling	752	31,708	182	25	708	76	119	
Weaving	26,440	28,569	4,384	1,082	204	12,109	4,261	119
Roller-covering	261	169	10	7		31	24	
Engineers &c	3,739	84	151	3	14	3		
<b>TOTAL</b>	<b>61,193</b>	<b>65,774</b>	<b>16,314</b>	<b>26,49</b>	<b>689</b>	<b>26,351</b>	<b>12,465</b>	<b>636</b>

EMPLOYED IN	Proportion whose age and sex are uncertain from a deficiency in the Returns	TOTAL Employed	Aggregate Amount of Monthly Net Earnings.				
	number		number	£	s	d	
Cleaning and spreading cotton		number	4,298	8,631	19	0	0
Carding	619	40,484	75	276	10	0	0
Mule spinning	364	68,216	139	660	17	0	0
Throatle spinning		1,709	11	615	10	1	1
Reeling		14,636	22	817	8	4	
Weaving	2103	78,050	168	663	18	3	
Roller-covering		725	1	764	18	5	
Engineers &c		8,978	15,987	0	9		
<b>TOTAL</b>		<b>23,8</b>	<b>212,800</b>	<b>444,481</b>	<b>1</b>	<b>1</b>	

Mr Porter observes —

“The computation made by Mr Stanway gives 212,800 as the number of persons of all ages employed in spinning and weaving factories in the United Kingdom, while the actual number given in to the inspectors in 1835 amounts to 220,143 persons, being a difference of only 7334, or not quite 3½ per cent. Before giving the summary of the statements made by the inspectors in 1835 and 1839 it may be satisfactory to insert the following particulars derived from returns made to the commissioners by the proprietors of 225 cotton-mills in Lancashire

TABLE exhibiting Returns of 215 Cotton-Mills in Lancashire

PLACE WHERE EMPLOYED	ADULTS		CHILDREN UNDER EIGHTEEN YEARS						Employed	Aggregate Amount of their Net Earnings for the Month ending the 4th of May 1833	Paid by Fixed Daily Wages	Paid in proportion to the Quantity produced.	Number whose Mode of Payment is not given in Returns
	Males	Females	Males			Females							
			In the direct Employ of Masters	In the direct Employ of Operatives	Employers uncertain	In the direct Employ of Masters	In the direct Employ of Operatives	Employers uncertain					
	number	number	number	number	number	number	number	number					
Manchester and immediate neighbourhood	5,847	7,624	1734	2803	63	2502	1640	89	22,442	45 164 9 5	11 590	9 178	1374
Stockport and Heaton Norris	2,601	2,712	650	1077	28	976	541	38	8,396	16,465 5 9 2	3,470	4 704	162
Duckend and Staley Bridge	2,551	2,421	847	976	9	850	358	25	8,489	10 209 7 28	2 973	2 577	2092
Hyde Brinnington &c	2,502	3,507	1076	832	61	1991	180	13	10,282	23 397 16 10	2,409	5,837	1,106
Thincwisle Gosop &c.	1,221	1,413	333	591	26	423	338	30	4,370	8,884 10 4 2	1 790	1 917	637
Oldham	1,934	1,388	810	892	46	694	380	38	5,095	11 467 9 5 2	2,172	2 808	217
Botton	1,540	1,482	293	1304	3	695	799	6	6,174	11 548 15 7 1	4 383	1 833	36
Warrington	534	255	65	1 0		110	86		1 119	2 015 4 6 2	349	339	218
Greg & Co., and R. & T Taylor	187	247	72	88		127	28		7 116	1 328 5 10 2	250	449	17
<b>TOTAL.</b>	<b>19 247</b>	<b>20 962</b>	<b>4880</b>	<b>8523</b>	<b>220</b>	<b>6398</b>	<b>4304</b>	<b>200</b>	<b>67 819</b>	<b>141 683 5 7 2</b>	<b>39 618</b>	<b>21 950</b>	<b>6236</b>

  

EMPLOYED IN	ADULTS		CHILDREN UNDER EIGHTEEN YEARS						Persons whose Age and Sex are not given in Returns.	TOTAL Persons Employed	Aggregate Amount of their Net Earnings for the Month ending the 4th of May 1833		
	Males	Females	Males			Females							
			In the direct Employ of Masters	In the direct Employ of Operatives	Employers uncertain	In the direct Employ of Masters	In the direct Employ of Operatives	Employers uncertain					
	number	number	number	number	number	number	number	number				number	number
Cleaning and spreading cotton	424	730	309	1	10	110	2	4	1 928	2 750 10 11 1			
Garding	3,302	4,200	1,748	147	23	2381	140	22	20 201	12,903	23,090	9 10 2	
Mule-spinning	7,243	1,658	968	7532	82	400	2761	50	116	20 784	44 909 13 9 2		
Throstle-spinning	833	930	449	8	3	702	6	21	9 427	2 761 10 10 2			
Reeling	230	1 172	68	8	6	7 65	24	28	4 605	7 271 17 6 8			
Weaving	6,614	0 184	1460	832	63	5850	18 08	699	23 980	33 752 17 2 2			
Roller covering	83	184	6	1		10	7		231	502 9 6 2			
As engineers mechanics fire men &c.	1 198	11	48	8	6	1			1 267	8,005 0 9 2			
<b>TOTAL.</b>	<b>10 47</b>	<b>20 962</b>	<b>4880</b>	<b>8523</b>	<b>220</b>	<b>6138</b>	<b>4304</b>	<b>200</b>	<b>1076</b>	<b>67 819</b>	<b>141 683 5 7 2</b>		

STATEMENT of the Number of Cotton Factories in Operation in the different Parts of the United Kingdom with the Number and Ages of the Persons Employed therein, abstracted from Returns made by the Inspectors of Factories in 1835

C O U N T I E S	Factories		Between Eight and Twelve Years		Between Twelve and Thirteen Years		Between Thirteen and Eighteen Years		Above eighteen Years		TOTAL Number of Persons employed		
	At Work	Empty	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	TOTAL
	number	number	number	number	number	number	number	number	number	number	number	number	number
ENGLAND													
Cheshire	169	7	424	406	1445	1200	3,672	4,315	5,971	10,069	15,516	15,096	31,512
Cumberland	13		8	4	57	38	169	332	392	658	626	1,032	1,658
Derby	94	3	182	1,12	804	864	1,073	1,094	2,835	3,556	4,614	6,36	10,830
Durham	1					9	1	11	8	11	9	21	33
Lancaster	663	32	2506	1,83	6410	5261	16,655	20,365	24,071	31,675	60,101	79,264	122,415
Leicester	7		9		66	17	130	99	10	158	322	207	529
Middlesex	7		22		24		109	14	62	119	217	133	350
Nottingham	20		17	23	62	131	138	322	250	796	461	1,242	1,738
Stafford	13		2	78	67	115	261	463	409	705	743	1,099	2,048
York West Riding	146		469	387	639	533	1,632	2,031	2,137	2,72	5,187	5,724	10,911
Total England	1070	42	4930	3073	9190	7865	23,974	29,469	50,675	58,410	87,63	84,217	189,062
Wales (Flint)	5				86	33	146	208	290	498	452	689	1,131
Scotland	150		454	238	1258	1832	2,845	4,597	6,168	12,403	10,529	22,051	32,580
Ireland	38		44	56	153	181	286	561	960	1,583	1,639	2,672	4,311
TOTAL United Kingdom	1262	42	5528	3669	10,663	9011	27,251	38,235	58,053	67,894	100,435	119,639	220,184

STATEMENT of the Number of Cotton Mills and the Persons Employed in them during the Year 1839

COUNTIES	MILLS		TOTAL PERSONS EMPLOYED		
	Working	Empty	Male	Female	TOTAL
ENGLAND	number	number	number	number	number
Cheshire	154	12	17 676	18 676	26 352
Cumberland	13		750	1 265	2 015
Derby	85	10	4,231	6,231	10 462
Glooucester	1		15	14	29
Lancaster	1 125	61	68 879	82,926	152 107
Leicester	3		54	190	244
Middlesex	11		283	250	533
Norfolk	1		6	124	130
Nottingham	18		454	1 006	1 460
Shropshire	1		15	24	39
Stafford	13		734	1,244	2 0 8
Surrey	3		78	110	188
Warwick	4		43	41	84
York	160	5	4 602	8,7 7	12,413
<b>TOTAL</b>	<b>1,598</b>	<b>80</b>	<b>90 856</b>	<b>118 280</b>	<b>218 136</b>
WALES					
Flint	5		375	634	1 010
SCOTLAND					
Aberdeen	4		247	1 441	1 790
Ayr	3		260	613	873
Bute	2		164	271	435
Dumbarnton	4		510	974	1,264
Dumfries	1		0	26	106
Kirkcudbright	1		7	97	1 4
Lanark	107	4	6,006	14 290	20 296
Lithgow	1		45	55	100
Peebles	7		631	1 163	1 7 4
Renfrew	58	2	2 654	6 297	7 9 1
Stirling	3		229	424	653
<b>TOTAL</b>	<b>192</b>	<b>6</b>	<b>10 944</b>	<b>24 624</b>	<b>35 568</b>
IRELAND					
Antrim	10		634	1 366	2 000
Armagh	2		76	134	210
Cork	1		19	30	55
Down	3		260	307	567
Dublin	3		90	258	348
Killare	1		93	154	247
Mayo	1		2	27	29
Queen's County	1		12	26	38
Waterford	1		514	498	1 012
Wexford	1		43	48	91
<b>TOTAL</b>	<b>24</b>		<b>1 767</b>	<b>2,837</b>	<b>4 604</b>



STATEMENT of the Number of Cotton Factories in Operation in different Parts of the United Kingdom, with the Number and Power of the Engines, and the Number and Ages of Persons employed therein in the Year 1839

MILLS Mills at work Mills empty	ENGLAND		WALES		SCOTLAND		IRELAND		UNITED KINGDOM	
	number 1808		number 5		number 192		number 24		number 1819	
	88		6		6		1		95	
	Engines	Power of Engines	Engines	Power of Engines	Engines	Power of Engines	Engines	Power of Engines	Engines	Power of Engines
Steam power	1422	40 960	7	105	153	5619	19	517	1641	46,827
Water power	54	9 53	6	140	72	2785	22	372	674	12 777
PERSONS EMPLOYED	Males		Females		Males		Females		Males	
	number	number	number	number	number	number	number	number	number	number
	Under 10 years	1 024	673	7	1	79	37	1	9	1 100
10 to 11	1 461	980	14	14	147	120	6	9	1 618	1 109
11 12	1 77	1 178	14	5	160	170	9	1	1 870	1 324
12 13	2 727	1 45	14	23	243	254	19	5	2 900	2 027
13 14	9 92	10 4 6	60	26	1 308	2 159	1 3	243	11 442	12 384
14 15	9 09	10 068	10	32	1 144	2 214	156	251	11 087	14 86
15 16	7 009	1 58	10	40	818	1 075	130	235	7 903	11 814
16 17	6 150	8 117	9	43	534	1 940	106	1 72	6 805	16 192
17 18	4 416	470	28	29	396	1 454	90	301	4 960	5 584
18 19	3 900	5 202	8	20	1 1	2 103	65	298	5 440	11 725
19 20	1 613	8 272	10	48	311	1 535	55	191	4 071	9 946
20 1	3 795	9 974	7	33	47	1 4 9	80	226	4 079	5 112
21 and upwards	44 519	44 167	164	17	3 116	8 3 6	853	1023	50 352	53 971
TOTAL	69 826	118 260	376	684	10,044	24,024	1765	2887	112 941	146,333
Total in les and fem les	218 136		1010		3 568		4622		239 326	

The numbers given in the foregoing summary have reference only to those branches of the cotton manufacture which are carried on in spinning and weaving factories and do not include the persons employed in printing and dyeing, nor the numerous hand loom weavers, with many other branches of the manufacture, and the great numbers who are otherwise directly or indirectly dependent upon it for support

Mr McCulloch has estimated "allowance being made for old and infirm persons, children, &c, dependent upon those actually employed in the various departments of the cotton manufacture, and in the construction, repairs, &c, of the machinery and buildings required to carry it on," that the entire cotton manufacture "must furnish, on the most moderate computation, subsistence for from 1,200,000 to 1,300,000 persons"

By Mr Stanway's method of computation, we find that, for spinning the quantities of cotton used in 1801 and subsequent periods, the following number of persons would be required —

Y E A R S	P E R S O N	Y E A R S	P E R S O N	Y E A R S	P E R S O N
number	number	number	number	number	number
1801	26 921	1811	64 467	1821	123 704
1811	28 626	1821	80 318	1831	174 653
1821	44 873	1831	123 743	1841	275 308
1831	48 694				

Beginning of Peace. In 1814 the last year of war the number would be 25,715

"These numbers are exclusive of the persons who were employed in weaving in factories, and who, according to Mr Stanway's estimate, amounted, in 1832, to 75,055

"It would by no means furnish a correct view, however, if the amount of labour required for the conversion of the given quantities of cotton into yarn at the above mentioned periods were taken at a uniform rate. The vast improvements made during late years in the machinery applied to spinning has caused such an economy in the application of labour, that not one half of the number of persons is now required for carrying forward the various manufacturing processes with a given weight of cotton, that were employed for producing an equal result thirty years ago. This fact will be sufficiently illustrated by the following statement, taken from the books of Mr Thomas Houldsworth, an eminent cotton spinner of Manchester, and laid before the Committee on Manufactures, Commerce, &c, which sat in 1833. This statement will further show that, notwithstanding the great reduction in the rate of wages which has necessarily accompanied the introduction of improved machinery the actual money earnings of the operative spinner are greater now than they were at the beginning of the century and that his command of the necessaries of life places him in a far more advantageous position than he then occupied.

YEARS	Work turned off by one Spinner per Week		Wages per Week			Hours of Work per Week	Prices from Greenwool & Capital Records			Quantities which a Week's Net Earnings would purchase	
	Quantity	Quality	Gross	Pieces	Nett.		1-lb per sack	Flesh per lb	lbs of Flour	lbs of Flesh	
	lbs	Nos	s d	s d	s d	number	s d	s d	number	number	
1804	12	160	60 0	27 6	32 6	71	83 0	6 to 7	117	6 ½	
	9	200	67 6	31 0	36 6	74	83 0	6 to 7	124	7 ½	
1814	18	160	72 0	37 8	44 6	74	70 6	8	135	67	
	12 ½	200	80 0	30 0	50 0	74	70 6	8	220	50	
1833	22 ½	180	54 8	21 0	33 6	60	45 0	6	210	67	
	19	200	65 3	22 6	42 9	69	45 0	6	267	85	

"The sack of flour is taken at 280 lbs.

"The above is the result of an average of several men's work at the different periods."

In 1833, the number of hours employed during the week was 69, instead of 74, which it had been in the former years. But for this reduction in the time of working, the nett earnings would have been for No 180, 36s 1d, and for No 200, 45s 10d, and the quantities of flour and meat would have been for No 180, 224 lbs and 72 lbs, and for No 200, 285 lbs and 91 lbs respectively.

Mr Babbage, in his "Economy of Manufactures," gives the following statement —

"A machine, called in the cotton manufacture a 'stretcher,' worked by one man, produced as follows —

YEARS	Pounds of Cotton Spun	Roving Wages per Score	Rate of Earning per Week
1810	400	s d	s d
1811	680	1 5 ½	25 0
1812	850	0 0	31 10 ½
1824	1060	0 ½	31 3

"The same man working at another stretcher, the roving a little finer produced —

YEARS	Pounds of Cotton Spun	Roving Wages per Score	Rate of Earning per Week
1823	900	s d	s d
1824	1000	0 7 ½	24 ½
1825	1160	0 6	27 6
1826	1200	0 6	30 0
1832	1200	0 6	30 0

"In this instance, production has gradually increased, until, at the end of twenty-two years three times as much work is done as at the commencement, although the manual labour employed remains the same. The weekly earnings of the workmen have not fluctuated very much and appear on the whole to have advanced, but it would be imprudent to push too far reasonings founded upon a single instance.

The produce of 130 spindles of mule-yarn spinning, at different periods, was as follows —

YEARS	Hanks about forty to the pound	Wages per 110 sand
1795	6 688	4 2
1817	8 090	4 3
1812	10 000	4 8

The subjoined view of the state of weaving by hand and by power looms at Stockport, in the years 1822 and 1832 is taken from an enumeration of the machines contained in sixty-five factories, and was collected for the purpose of being given in evidence before a committee of the House of Commons

DESCRIPTION	1822	1832	Decrease and Increase
	number	number	number
Hand loom weavers	2500	800	2000 decrease
Persons employed on power looms	65	307	249 increase
Persons employed on the warp	98	368	270
Total persons employed	355	447	67% increase
Power looms	1470	1177	8 67 "

During this period the number of hand-looms in employment diminished five sevenths, whilst that of power-looms increased to more than five times its former amount. The total number of workmen increased about one-third, but the amount of manufactured goods (supposing each power loom to do only the work of three hand looms) was three and a half times as large as it was before.

In considering this increase of employment, it must be admitted that the 2000 persons thrown out of work are not exactly of the same class as those called into employment by the power-looms. A hand weaver must possess bodily strength, which is not essential for a person attending a power loom, consequently women and young persons of both sexes from fifteen to seventeen years of age find employment in power-loom factories. This, however would be a very limited view of the employment arising from the introduction of power-looms, the skill called into action in building the new factories, in constructing the new machinery in making the steam engines to drive it, and in devising improvements in the structure of the looms, as well as in regulating the economy of the establishment, is of a much higher order than that which it had assisted in superseding. Nor in this view of the subject must we omit the fact that, although hand-looms would have increased in number if those moved by steam had not been invented, yet it is the cheapness of the article manufactured by power-looms which has caused this great extension of their employment and that, by diminishing the price of one article of commerce we always call into additional activity the energy of those who produce others. It appears that the number of hand looms in use in England and Scotland in 1830 was about 240,000 nearly the same number existed in the year 1820, whereas the number of power looms which, in 1830, was 55,000, had, in 1820, been 14,000. When it is considered that each of those power-looms did as much work as three worked by hand the increased producing power was equal to that of 123,000 hand-looms. During the whole of this period the wages and employment of hand loom weavers have been very precarious.

In the cotton mill of Messrs Houldsworth's, in Glasgow, a spinner employed

on a mule of 336 spindles and spinning cotton 120 hanks to the pound, produced, in 1823, working seventy-four and a half hours in the week, forty six pounds of yarn his nett weekly earnings for which amounted to 26s 7d In 1833, the rate of wages having in the meanwhile been reduced thirteen and a third per cent, and the time of working having been lessened to sixty nine hours, the spinner was enabled, by the greater perfection of the machinery, to produce, on a mule of the same number of spindles, fifty two and a half pounds of yarn of the same fineness, and his nett weekly earnings were advanced to 29s 10d

But a much more considerable economy than this has been produced in cotton mills by increasing the size of the mules Mr Cowell gives the following example of the effect of this improvement, as regards the cost of the yarn and the earnings of the spinner —

“In the year 1833, in two fine spinning mills at Manchester, while I was in the town, a spinner could produce sixteen pounds of yarn of the fineness of 200 hanks to the pound, from mules of the productive fertility of 300 to 324, working them sixty-nine hours, and the quantity that he turned off in sixty-nine hours more frequently exceeded sixteen pounds than fell short of it

“These very mules were being replaced by others of double power while I was at Manchester Let us examine the effect on the spinner's earnings in the early part of last year he produced sixteen pounds of yarn of No 200, from mules of the power of 300 to 324 spindles Consulting the list of prices, I perceive that in May he was paid 3s 6d a pound, this gives 54s for his gross receipts, out of which he had to pay (I will put the amount high) 13s for assistants This leaves him with 41s earnings His mules have their productive fertility doubled, they are converted into mules of the power of 648, he is now paid 2s 5d a pound instead of 3s 6d, but he produces thirty-two pounds of yarn of the fineness of 200 hanks to the pound in sixty-nine hours, his gross receipts are immediately raised to 77s 4d I will now admit that he requires *five* assistants to help him, and averaging their cost at 5s a piece, their labour will cost him 25s and to avoid all cavil, I will add 2s extra then deducting 27s from his gross receipts there remains a sum of 50s 4d for his nett earnings for sixty nine hours' work instead of 41s, an increase of more than twenty per cent, while the cost of the yarn is reduced 13d per pound”

Mr Porter remarks,—

“An effect such as has just been described can only be produced while the trade is in a course of rapid extension If the productive power of the machines were doubled without a corresponding increase in the demand, it is clear that the operative spinners could not receive a greater amount of weekly earnings, but that, on the contrary many of them would be thrown out of work, and a competition for employment would thence arise, which must occasion a reduction in their actual receipts Considered in this point of view, the prosperity of this branch of national industry becomes a subject of the greatest importance—an importance far beyond all calculation of mere shillings and pence The tendency of all improvements in the various processes of the cotton manufacture is the abridgment of human labour, but hitherto such has been the gigantic progress of the trade, as to give full employment to the hands who, in a less prosperous state of things, would have been thrown out of work Nor is this all The assistants of the spinners, who, from their occupation in joining the threads broken in the spinning, are called *piecers*, and who are much more numerous than the spinners themselves are, while thus employed, qualifying themselves to become spinners when they grow up Hitherto the demand for workmen of that kind has been sufficiently great to absorb all who have thus been qualified, and to cause them to receive, as spinners, adequate and even liberal wages Piecers are generally employed in the proportion of four to one

spinner, but one of these four is generally a girl, who does not in after life become a spinner but is transferred to some other department of the mill. It is further probable that of the three boys one may cease to work in a factory, but even then the number of candidates for employment as spinners will be continually doubled in the course of a few years and it we had no other means for ascertaining the progressive extension of the manufacture the fact of the continual absorption of these fresh hands would prove how great that extension must be—that it must have continued with a constantly accelerated speed in order not to lower the earnings of the operative spinners, whose ranks are thus increased in a geometrical ratio.

“Provided nothing shall occur to prevent the cotton manufacture of this country from developing itself in the same extraordinary manner as it has done during the last thirty years, the new candidates for employment will of course receive the same encouragement as those have experienced who have preceded them.”

STATEMENT of the Number of Power Looms used in Factories in the United Kingdom, at the end of the Year 1835, distinguishing Counties, and the Branch of Manufacture in which the same are used

C O U N T I E S	Cotton	W o o l e n	Silk	Flax	Mixed Goods	TOTAL
	number	number	number	number	number	number
Lancaster	6156	1148	366			6934
W. moreland	8	8				8
Ch. r	22491	8	414			22913
D r y	2464		106			2569
York	4111	170				7809
Stafford	227		119			435
Der. a			80			80
F o z			106			106
Kent				12		12
Es. ester	30	23				53
Middlesex	4					4
Portoik			366			366
Sou. t		4	16			20
W ick					25	25
W r r			7			7
Ch. i e t r		4				4
Monist. w r s		4				4
C. mb. land	150					150
Durham				20		20
Northumberland		6				6
<b>TOTAL in England</b>	<b>90779</b>	<b>3165</b>	<b>1714</b>	<b>41</b>	<b>25</b>	<b>97564</b>
Le. n k	14604					14604
Runt. v	1419			26		1805
D. m. l. r. t. o. n	534					534
B. t.	51					94
A. t.	736					736
h. k. w. d. b. r. i. g. h. t.	50					50
P. e. t.	421					421
Aberdeen	248			144		392
Hexburgh		2				2
<b>TOTAL in Scotland</b>	<b>17541</b>	<b>2</b>		<b>168</b>		<b>17711</b>
Waterf. rd.	439					439
W. ford	67					67
Kildre	52					52
D. b. l. n.	23					23
A. t. r. u. m.	340					340
D. e.	48					48
Armagh	13			160		173
<b>TOTAL in Ireland</b>	<b>1416</b>			<b>160</b>		<b>1576</b>

## S U M M A R Y

C O U N T I E S	Cotton	Woolen	Silk	Flax	Mixed Goods	TOTAL
	number	number	number	number	number	number
England	90779	3165	1714	41	25	97564
Scotland	17541	2		168		17711
Ireland	1416			160		1576
<b>United Kingdom</b>	<b>109736</b>	<b>3167</b>	<b>1714</b>	<b>369</b>	<b>25</b>	<b>116861</b>

The number of power looms used in the cotton, silk and India rubber thread, the articles manufactured are girths &c. &c. trac. garters and h. li. k.

*Cotton Printing*—Anderson, in his “History of Commerce,” states that cotton-printing was first practised in London in 1676. The first cotton-printer in England is said to have been a Frenchman, whose print ground was at Richmond, on the banks of the Thames. Owing to the interference of Parliament, first by the imposition of heavy duties, and afterwards by more direct restrictions, the trade was destroyed in 1720 in order to encourage the silk and woollen manufactures. The restriction against wearing printed fabrics, of which cotton formed a part, was repealed in 1736, and it was computed that, in 1750, as many as 50,000 pieces of goods, made of linen-warp and cotton-weft, were printed in England. In about fifteen years after, printing woven fabrics was introduced into Lancashire. “The excise duty imposed upon printed cottons, up to the year 1831, when the duty was wholly repealed, affords the following results —

	Yards
The quantity printed in 1796 was	20 621 797
In 1800 it had increased to	32,869 729
In 1814 it had further increased to	124 613 472
And in 1830 it had reached to	347,400 299

being more than ten times the quantity printed at the beginning of the century, while, on the other hand, it is less by 55,971,101 yards than the quantity exported in 1844. The quantity printed in 1830, after providing 199,799,466 yards for exportation, left 147,650,833 yards for use at home.

“The substitution of metallic cylinders, on which the patterns are engraved, in place of wooden blocks, was first practised about 1785, and at once effected a great saving. The process of engraving the entire surface of these large cylinders was, however, a very expensive operation, it was consequently a more important improvement when the system was introduced of engraving the pattern upon a small steel cylinder, and thence transferring it by pressure, first to softened steel, and then, this being hardened, to copper cylinders, in the manner which has since been used for multiplying plates used for printing bank-notes. By this means the engraved patterns can be transferred to almost an indefinite number of cylinders at a trifling expense. The small cylinder upon which the engraving is first sunk is called the *die*, the second cylinder to which the pattern is transferred in relief is called the *mill*. This, when hardened, will give the required impression to a great number of cylinders made of the softer metal, and as the die can likewise be made to give up its pattern to several mills, a sufficient number of cylinders can always be produced from one engraving.

“The introduction of this great improvement took place about 1808, and has had a powerful effect in extending the trade of the country. At this time,

cylinders thus made and engraved, after the novelty of the pattern is gone by in England, are exported to various parts of Europe and America

“At first, only one colour could be imparted to the pattern on the cylinder, and if more than one colour were required, it was necessary to resort to a different process, and to print the several colours by different operations. This disadvantage was at length partially got over, so that, five years ago, printers were enabled to impart two, and even three, colours by means of cylinders, and it is now common to print five colours at one operation. The vast improvement which has latterly been produced in the style and execution of printed cotton goods is matter of such common observation, that it cannot be necessary to enlarge upon it here, but for it, the cotton manufacture could not, in this branch, have stood against the powerful rivalry to which it has of late been subjected by our silk manufacture. This improvement has been assisted by the discovery of a method for imparting to cotton fabrics the brilliant red colour of cochineal, which was previously applied to woollens only. This is effected by simply passing a current of steam on to cloth to which the cochineal-dye has previously been applied, that process of fixing the colour”—*Porter's Progress of the Nation*

*Cotton Hosiery*—Mr Felkin, of Nottingham, has with great care given us many interesting facts relative to this very important branch of industry

The chief seats of the hosiery manufacture are the counties of Derby, Nottingham, and Leicester, in the last named of which nearly all the frames in which wool is employed are to be found, while Nottingham contains the largest number of frames for the production of cotton hosiery. The use of silk in this branch of manufacture is almost wholly confined to Derby and Nottingham

Blackner estimated that in 1812 there were 29,590 stocking frames at work in all the branches. Thirty years before that time the number had been estimated at 20,000. If we are to judge from the localities assigned to the frames in 1812, it would appear that rather more than one-third were employed in producing cotton hose, and that about one-half were used for woollen goods, but no very accurate estimate of the proportions can be formed from the locality of the machines. In 1833, a meeting was held of delegates from the frame-work knitters, when a resolution was formed for dividing the seat of the hosiery manufacture into districts, with the view of obtaining, among other things, exact details of the number and description of frames, the amount of labour employed in them, and such further particulars as might enable the workmen to co-operate for the more effectual protection and advancement of their interests. The resolution thus formed was not, indeed, carried into effect in the manner nor with the objects proposed, but was of advantage, by its having been the means of drawing the attention of Mr Felkin to the subject, who drew up an estimate of the extent of the manufacture in its various branches,

which was believed to present a sufficiently accurate approximation to the condition of the trade at that time to answer all practical purposes

In 1812, Mr Blackner estimated 29,590 frames as the total of what were used in the United Kingdom Since then, many frames have been widened so as to make two stockings at once The quantity of cotton hosiery goods made in 1833 was estimated by Mr Felkin to have increased more than fifty per cent in the preceding twenty years The use of cotton stockings has, during that time, been superseding those of woollen to a great extent among the female part of the population

Stockings, weaving or knitting, is carried on in the dwellings of the workmen, some of whom possess frames, which are their own, but the greater part work on frames which belong to the master-manufacturers, by whom the workmen are employed, and who are paid by the weaver a rent varying from forty shillings to five pounds per annum

Mr Felkin's statement, as extracted by Mr Porter, gives the following results —

Each narrow cotton frame produces about 40 dozen of hose a year if of women's size wide cotton frames 360 narrow worsted 75 wide worsted 150 and silk 30 There are—

Frames.	Employed in Manufacturing	Number Manufactured	Consumption	Material	Value	Wages for Making	And Finishing	Total
	fabric	dozen	lbs.		£	£	£	£
10,300	Fashioned cotton hose	420,000	880,000	Cotton yarn	73,000	220,000	22,000	39,000
6,000	Cut up, &c.	1,260,000	2,400,000	"	17,000	24,000	24,000	5,000
4,500	Fashioned worsted	1,100,000	2,400,000	Worsted	284,000	215,000	41,000	340,000
1,001	Cut up, &c.	500,000	400,000	"	40,000	30,000	10,000	80,000
2,300	Angora	95,000	332,500	"	45,000	40,000	1,000	104,000
1,900	Lamb's wool	125,000	629,000	"	80,000	4,000	11,000	14,000
3,000	Silk	80,000	10,000	Silk	110,000	100,000	13,000	223,000
33,000		3,510,000	8,137,000		814,000	648,000	1,000,000	1,991,000

According to this calculation the value of the cotton hosiery annually made is 800,000*l* and of worsted &c. is 8,000*l* and that of silk is 20,000*l*.—To produce these goods it is probable that 4,384,500 lbs. of raw cotton wool value 131,000*l* are used and 1,100,000 lbs. of raw silk (two-fifths China and three-fifths *hoy*) value 91,000*l*, also 6,318,000 lbs. of English wool value 216,000*l*. The total original value of the materials used is therefore 360,000*l* which it appears becomes of the ultimate cost value of 1,991,000*l* in this manufacture

There are employed in the various processes as follows viz —  
In cotton-spinning doubling &c., 3000 worsted carding spinning &c. 2,000 silk winding throwing &c. 1600 5,300  
In making stockings 13,000 men 10,000 women 10,000 youths and women and children in seaming winding &c. 2,000 60,777  
In embroidering mending bleaching dyeing dressing putting-up, &c., probably about 5,000

Total persons employed

73,000

The capital employed in the various branches of the trade may be thus estimated taking the machinery and frames at neither their original cost nor actual selling price but at their working value and the stocks of hosiery on an average of several years:—

Capital Invested in Mills and Machinery	Capital Invested in Looms and Stock	Capital Invested in Frames	Value of Cotton and Stock
£	£	£	£
For preparing cotton	In wool and yarn	Narrow cotton frames	Goods
worsted &c.	Worsted	Wide ditto	"
18,000	Ditto	Narrow worsted frames	3,000
		Wide ditto	34,000
		Silk frames	85,000
Fixed capital in mills &c. in frames	Floating capital in spinning &c.	Fixed capital in frames	Placed on capital in making hose, &c.
140,000	370,000	243,000	370,000
24,000			
Total of fixed capital		Total of floating capital	1,050,000



TABLE exhibiting Number of Hosiery Frames in the United Kingdom, and Average Quantity and Description produced.

DESCRIPTION OF GOODS	Derby	Notting ham	Leicester	Other English Counties	Ireland	Scotland	Total Number of Frames.	Weight of Material	Value of Material.	Dizens produced	Wages	Charges of Finishing and of Sale	Market value of Finished Goods
	number	number	number	number	number	number	number	lbs	£	dosen	£	£	£
<b>SILK</b>													
Wrought hose socks, and half hose	650	346		59			1,033	43,750	22,000	44 000	26,330		
Spurious including purses and pun silk	100	103	2	40	20		262	20 000	7 500	40 000	11 000		
Gloves	698	1 407	101				2,906	77 310	24 652	340 000	77 210	55 627	233 763
Ribbed tops		146					148	7 000	7 014	{ must not be reckoned }	4,440		
<b>COTTON</b>	1454	2 094	104	99	20		3 771	147 900	159,256	470 000	118,880		
Wrought hose socks and half hose	2900	5,544	6,426	682	44	240	16,820	2,500 000	111 000	930,000	250 200		
Spurious, drop off cut up & Gloves	255	4 547	649	84	100		4 936	9 010 000	77,800	1 224 000	148 000	166,430	898 700
Drawers caps shirts, &c. Fancy goods	218	1 062	487				1,280	672,000	28 500	26 000	28 400		
	7	438					445	90 000	4 400	78,000	13 350		
<b>WOOL.</b>	4380	12 440	6,033	686	144	246	24,823	3,590,000	228 200	2,872,000	299 050		
Worsted lambs wool and merino wrought hose and socks	2	61	7 061	162	5	2165	9 486			1 050,000	189 000		
Spurious			1 798	6	10	200	2,014			7 0 000	61 000		
Gloves			923				923			370 000	28 000		
Drawers shirts &c			1,271	15			1,276			120 000	41 000		
Fancy goods			514				514			100,000	10 000		
	2	61	11 407	183	15	2365	14 083	8,000 000	650 000	2 260,000	229 000	244 750	1 222 750
<b>FLAX</b>													
Wrought hose					80		86	9 000	3,000	3 800	3,200	1,800	6,500
<b>TOTAL.</b>	7386	14 593	18 494	985	285	2005	42,703		1 043,4 0	3 705,000	1,049 120	468 127	2,562,713

CULTIVATION, SUPPLY, AND MANUFACTURES OF COTTON

*Bobbinnet Manufacture* — This ingenious and most important branch of industry has, during the present century, risen from almost nothing to a branch of industry which, according to the memorial presented to the Treasury by the principal manufacturers, afforded, in 1834, employment to from 150,000 to 200,000 persons, to whom the annual average wages, amounting to about 2,500,000*l* has been paid

Bobbinnet, or net-work lace, by means of machinery, is said not to have succeeded until 1809, when a rude machine, very inferior to the improved machinery now employed, was protected by a patent, by which its proprietors, during its continuance, accumulated a large fortune. The machinery now in use, with equal manual labour, yields twelve times the quantity of net which was previously made at an unprecedented diminution of cost, that is to say, a quantity for 2*s* 6*d* which, during the patent, was sold for 5*l*

STATISTICS of the Bobbinnet Trade in 1836, by Mr Felkin

Capital Employed in Spinning and Doubling the Yarn	Value	Capital Employed in Bobbinnet Making	Value
Fixed capital in 35 spinning and 24 doubling factories — 7 4 000 spinning 296,700 doubling spindles	715,000	Brought forward	760 000
Floating capital in spinnere and doublers stock and necessary sundries	200 000	Fixed capital in factories principally for power machines	85 000
Deduct one sixth employed for foreign bobbinnet making	915,000	Fixed capital in power machines averaging 11 quarters wide	170 000
	155,000	Fixed capital in hand-machines, averaging 9 quarters wide	267 000
Total capital employed in spinning and doubling for English bobbinnet trade	760 000	Floating capital in stock on hand power-owners hand-owners	150 000
			250 000
		Capital in embroidering preparing and stock	1 685,000
		Total capital employed in the trade	250 000
			1 932 000

The Value of the materials used was as follows —

COTTON YARN	Hanks	Value	Value	Goods	Value
lbs	number	£ s. d.	£	Brought forward—	£
6 000	230	7 5	2 280	Nett value of yarn	629 116
10 000	140	5 0	4 000	Value of silk used	40 000
73 000	180	8 9	32,219	Wages interest wear & tear &c.	39 254
85 000	100	9 6	40 375	Value of rough goods	1,202,840
95 000	170	10 7	50 170	200,000 pieces gassed 3d	2 500
250 000	180	12 0	210 000	300 000 bleached 10d	12 000
250 000	150	14 0	175 000	300,000 dressed 10d	27 000
280 000	200	16 0	176 000	One third figured cost	350 000
60 000	210	18 6	55,000	200 000 piece wide-nets finished	15 000
0 000	220	21 3	9 363	1 <i>st</i> 6 <i>d</i>	15 000
1 160,000			775 710	100 000 pieces, quiltings 3 <i>rd</i> ..	15 000
		20 per cent discount	151 154		
Carried forward	Nett value of yarn		629 616		1 812 500

THE Number of Machines, exclusive of 165 not at work, was 3,047, of the following Descriptions —

MACHINES	Rotary	Circular	Lever	Travers Warp	Pusher-Creolan	Total
	number	number	number	number	number	number
Plain	1943	110	16			1425
Quilting	247	110	701			1124
Fancy	43	188	448	154	165	998
Total	1855	420	1225	154	165	3547

The Parts of the Kingdom in which these Machines were employed, are—

PARTS.	Plain.	Quillings	Fancy	TOTAL.	Quantity of Yarn used.
	number	number	number	number	lbs
Nottinghamshire	372	1006	782	2160	645,000
Leicestershire	267	37	50	343	100,000
Derbyshire	192	49	14	255	100,000
West of England	654	30	103	787	320,000
TOTAL.	1425	1122	968	3415	1,165,000

The Quantity and Value of the Rough Goods produced by the different kinds of Machines were—

MACHINES	Quantity	Value	MACHINES	Quantity	Value
	square yards.	£		square yards	£
Rotary	15,842,845	679,255	Brought forward	26,782,925	1,281,078
Lever	8,327,540	476,959	Pusher Grecian	811,650	41,574
Circular	3,627,137	141,864	Travers Warp	375,198	54,128
Carried forward	26,822,222	1,298,078	TOTAL.	27,919,603	1,376,850

The Number of Machine Owners was then 837, of whom

302 possess only 1 machine.	5 possess from 31 to 40 machines
203 " " "	4 " 41 to 50 "
212 " from 2 to 5 machines.	5 " 51 to 100 "
69 " 6 to 10 "	104 " 104 to 150 "
24 " 11 to 20 "	1 " 151 to 200 "
10 " 21 to 30 "	and 1 " 200 "

The Power of the different kinds of Machines as to the Width of the Bobbinnet produced, was —

Width stated in Quarters	Rotary	Circular	Lever	Pusher Grecian	Travers Warp	TOTAL.
	number	number	number	number	number	number
4 Quarter			1	5	2	8
5 "	12	8	4	24	3	51
6 "	25	52	110	61	117	365
7 "	19	57	148	25	20	269
8 "	406	240	321	18	9	1064
9 "	19	32	118	3	1	168
10 "	313	5	192	16		546
11 "	41	3	122	7		173
12 "	623	4	184	6		810
13 "	17		12			29
14 "	4		5			9
15 "	1		2			3
16 "	23		9			31
20 "			3			2
TOTAL.	1665	420	1225	165	152	3547

The wages of persons employed in the different branches of the manufacture varied according to the kind of work produced The nett earnings of

Men are from 12s to 35s per week, averaging about 16s  
 Women " 3s to 12s " " 6s  
 Children 1s 6d. to 5s " " 2s 6d.

Successive improvements in the arrangements of the machines had caused those first constructed—the Travers' warp machines—to go out of use, and a

great number of them, which had cost 300*l* each, were sold and broken up for the value of the iron which they contained. Very recently it has been found, that by a slight alteration these machines may be adapted to the production of fancy nets, such of them as remained have been thus modified at a small expense, and employed for the production of fabrics of continually-increasing beauty and value."

Mr Felkin furnished Mr Porter with the following particulars respecting the position which this manufacture occupied in 1844 —

"The number of mills for spinning and doubling fine yarns is greatly increased since 1836, but the increased product is chiefly employed for warps in Bradford, Coventry, and Spitalfields, for the production of mixed goods. The capital employed in producing yarns for English lace is about the same as in 1836—

CAPITAL AND MACHINES	Amount	Amount
Say capital in 1844	£	£
Fixed capital in 45 factories	30 000	750 000
Fixed capital in 1750 steam power machines averaging thirteen quarters wide	280 000	
Fixed capital in 1450 hand machines average ten quarters wide	150 000	
Floating capital in rough goods in process of making	500 000	
Floating capital in process of embroidering and finishing	300 000	
		1,330 000
Total capital employed in the trade		2,080 000

"The only improvement introduced since 1833 in the machinery for making plain nets has consisted in a contrivance for obtaining greater speed in the working. Several patents have been taken out for improvements in the style of the goods produced, and for modes of adapting the jacquard frame. The main object sought by the patentees has been the introduction of patterns in close imitation of pillow lace, and especially of Netherland lace, and their success in this object has been very great.

"The cheapness of these beautiful fabrics is calculated to excite astonishment. A yard in length of 12 quarter wide plain net may now be bought for one shilling. A yard of platt net, of the same width, is worth from 20*s* to 5*l*. The machine employed to make the former would cost in its construction 250*l*, while the platt net machine would cost from 500*l* to 1000*l*. Fancy goods of all qualities, from one farthing to 20*s* per yard, are at all times being made, and often in the same establishment.

"In 1837 the fancy productions of Nottingham were so far out of favour with the public, that the embroiderers were reduced to one third of their former number, and those employed were earning miserable wages, but during the last three or four years so great has been the improvement in the taste and style of those goods, that the demand for them has been continually increasing at rising prices, and the wages of the workpeople have risen proportionally. This result has principally been owing to the application of the jacquard machine to this branch of manufacture, a result which has not been accomplished without great difficulty.

"The warp lace manufacture is usually carried on separately from the bobbinnet branch. The machinery engaged in it is chiefly employed by fifteen firms in the town of Nottingham and the neighbourhood.

"The warp-machine, which is a very beautiful modification of the stocking-frame, is used for the production of articles of the most varied texture, from the stoutest cloth to the lightest gossamer net-work. There are either plain or fancy goods for the latter kind the jacquard machine is connected with it, and very splendid patterns are thus produced. At this time (September, 1845), 800 warp frames are employed in making lace goods, 300 being worked with silk, and 500 with cotton yarn. These frames

would cost in their construction about 100,000*l*. They give employment to altogether about 4500 hands, viz —

200 overlookers smiths &c	at 40 <i>s</i> per week
100 machine hands	30
400 ditto	25
500 ditto	20
500 ditto	15
1000 females mending putting up &c	10
1500 females and children drawing, carding &c <i>to 6<i>d</i></i>	8
200 children wadding	3
100 bleachers dressers clerks &c	at various wages

“The sum paid in wages during 1844 was about 165,000*l*. The materials used in that year were 40,000 lbs of raw silk, value 30 000*l*, and 600,000 lbs of raw cotton, value 25 000*l*. The finished goods were of the value of 350,000*l*, viz —cotton goods, 200,000*l*, and silk goods, 150,000*l*.

“The 3200 machines were, in 1844, employed and produced as follows —

MACHINES	Consumption	Number of Yarn	Cost per lb.	Value	Value in Rough Goods
	lbs		<i>s</i> <i>d</i>	£	£
500 common plain cotton net	570 000	120	4 6	138,250	250 000
200 finer ditto	120 000	200	10 0	60 000	100 000
100 Brussels ground ditto	30 000	2 0	18 0	45 000	75 000
600 expensive fancies ditto	240,000	190	10 0	120 000	450 000
500 plain silk net					300 000
50 fancy ditto.					50 000
1750 steam-power machines					
850 cotton fancies	640,000	140	5 6	1,6 000	65 000
250 cotton quillings	150,000	170	7 0	52 500	130 000
300 plain cotton	180 000	180	8 0	72,000	180,000
50 silk fancies					27 000
1450 hand machines	1 000 000			630 750	2,170 000
	Embroidering				300 000
	Finishing sale expenses interest and profits				400 000
	Produce of plain finished goods			1 200 000	
	Fancy and embroidered ditto			17,00 000	
	Total returns of bobbinet manufacture 1844				2 993,000

“Among the machines employed in making fancy goods there were about 120 platt machines and 200 Mechm machines to which the jacquard frame was attached

“The persons employed in making, finishing, &c, the above, and their rates of wages, were as follows —

3800 machine hands viz —	500 y uths	at 10 <i>s</i> per week
	1000 y sug men	15
	3000 men	18
	1200 "	24
	400 "	30
	300 "	35
	100 "	40

TOTAL 5800

50 engine men	at 25 <i>s</i> per week
50 stokers	15
500 warpers	20
2000 threaders and winders (boys)	5
650 smiths moulders &c	30
150 plain gide &c makers	25
8000 men less of rough goods (female)	4
240 clerk and warehouse m	40
620 single machine owners and overlookers	40
0 gaspers	5
80 linen hays	45
0 dressers overlookers	40
00 tea ic hr ers	10
2000 order drawers &c (children)	0
1000 vine seed rs and idlers	10
1400 p rters &	18
0 c rters	15
2 k uers	40
2 r s l f m	15
5000 embroiders when employed	50 to 0
50 travellers at 120 <i>l</i> a year each	

"The produce of the manufacture passes through the hands of about 100 firms, all of whom, except two, are resident in Nottingham

The raw cotton used was about 2,500,000 lbs. cost 23s 00d.  
The raw silk used was about 115,300 lbs. cost 13s 00d.

"For a small part of the goods made cotton is used, spun into 450 hanks to the pound weight, the price of which is 12l 16s per lb

About 730 machines are in the West of England.  
810 Derbyshire

About 60 machines are in Leicestershire  
2100 Nottingham and its immediate vicinity

"About three-fifths of the goods made are consumed within the kingdom"

#### STATEMENTS RELATIVE TO THE VALUE OF THE COTTON MANUFACTURES OF THE UNITED KINGDOM

THE Parliamentary returns, Mr Porter's laborious investigations, the statements which Mr M'Culloch with the greatest attention to accuracy, Burn's Glance, and Mr Bannatyne's Estimate, afford the following summary of the value of British cotton manufactures, prices, &c Mr Dugald Bannatyne, in the supplement to the "Encyclopædia Britannica," and Mr M'Culloch, in the second edition of his "Dictionary of Commerce," have each estimated the value of goods annually manufactured at above 30,000,000l, Mr M'Culloch estimates the capital employed as follows —

Capital employed in the purchase of the raw material	£ 4,000,000
Capital employed in the payment of wages	10,000,000
Capital invested in spinning mills power and hand-looms, warehouses, stocks in hand &c	20,000,000
	34,000,000

The value of the goods annually produced is by Mr M'Culloch estimated as follows —

Raw material 240,000,000 lbs at 7d per lb	£ 7,000,000
Wages of 800,000 weavers spinners, bleachers &c at 2l 10s a year each	16,000,000
Wages of 100,000 engineers machine makers and the mason joiners &c at 30l a year each	3,000,000
Profits of the manufacturers, wages of superintendence sums to purchase the materials of machinery coals, &c	6,000,000
	34,000,000

Mr M'Culloch (See "Commercial Dictionary," 1844) estimates the capital employed in the manufacture and of the value of the goods annually made in the following order, viz —

Capital employed in the purchase of the raw material	£ 5,000,000
Capital employed in the payment of wages	9,000,000
Capital invested in spinning mills, &c.	20,000,000
	34,000,000
Raw material 400,000,000 lbs. at 10d per lb	10,000,000
Wages of 800,000 spinners weavers, bleachers &c at 20s a year each	16,000,000
Wages of 100,000 engineers machine-makers smiths masons joiners &c at 30l a year each	3,000,000†
Profits of the manufacturers, wages of superintendence, sums to purchase the materials of machinery coals &c	5,234,000
	34,000,000

Mr Baines differs in his details, but corroborates the result given by Mr Bannatyne and Mr M'Culloch —

\* So in original the price should be probably 6d, per lb

† So in original



LIVERPOOL Quotations, First Week of every Third Month, during the following Years.

DESCRIPTION	1815		1816		1817		1818		1819		1820		1821		1822		1823		1824		1825		1826		1827		1828		1829		1830		1831			
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.			
<b>NEW ORLEANS</b>	23	25	17	21	25	23	19	23	14	18	11	16	8	13	8	11	12	15	7	10	02	04	05	6	6	8	6	8	6	8	6	8	5	8	7	8
March	23	25	17	21	25	23	19	23	14	18	11	16	8	13	8	11	12	15	7	10	02	04	05	6	6	8	6	8	6	8	5	8	7	8		
June	20	24	19	23	24	21	17	20	15	16	16	16	9	12	8	11	8	11	17	21	04	9	0	9	4	8	0	9	0	9	0	9	0	9	0	9
September	24	27	18	24	21	24	20	19	25	28	10	16	26	22	0	10	0	11	04	12	0	11	04	12	6	8	0	12	6	8	0	12	6	8	0	12
December	15	25	18	22	12	21	17	21	12	17	08	14	04	12	7	11	0	11	0	12	0	11	0	11	0	12	0	11	0	11	0	11	0	11	0	11
<b>PERNAMBUCCO</b>	20	2	27	2	23	23	25	20	16	20	16	10	11	10	10	10	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
March	20	2	27	2	23	23	25	20	16	20	16	10	11	10	10	10	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
June	0	1	27	1	21	24	25	20	16	20	16	10	11	10	10	10	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
September	31	—	15	50	27	20	25	20	16	20	16	10	11	10	10	10	11	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
December	33	32	23	24	24	25	23	24	17	18	12	12	11	14	10	11	11	14	11	12	11	14	11	14	10	11	11	14	10	11	11	14	10	11		
<b>EGYPTIAN</b>	10	12	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
March	10	12	15	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
June	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
September	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
December	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
<b>EAST INDIA</b>	13	16	14	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14		
March	13	16	14	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14		
June	12	13	15	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14		
September	16	20	17	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16		
December	16	19	13	17	15	15	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14		



STATEMENT of Cotton spun in England and Scotland in the Years 1843, 1844, 1845, and 1846, and the Quantity of Yarn produced, separately showing the Quantity spun in England and how disposed of

DESCRIPTION	1843				1844			1845				1846			
	Bags consumed	Average Weight of Bags	TOTAL Weight in Bags	Weekly Consumption of Bags in each Sort	Bags consumed.	TOTAL Weight of B g	Weekly Consumption of Bags of each Sort	Bags Consumed	Average Weight of Bags	TOTAL Weight of Bags	Weekly Consumption of Bags of each Sort	Bags Consumed	Average Weight of Bag	TOTAL Weight of Bags	Weekly Consumption of Bags
American Br 21 &c	1 137 631	878	424 336 368	22,306 + 25	119 480	417 591 046	21 051 + 30	1 287 3 4	1469 190 502	25 243 + 32	1 260, 44				
Fezilian	76 597	121	13 0 6 037	1 501 + 46	126 107	1 043 7	2 484 + 23	134 019	1 21	21 257 240	2 431 + 38	300 149			
East India	32 221	284	9 401 63	735 + 16	51 277	14 478 348	1 003 + 12	54 221	284	15 400 458	1 003 + 14	65 003	366	558 798,592	31 708
West India	109 443	263	29 227 800	2 14 + 48	123 331	45 418 782	2 457 + 34	98 846	363	36,84 + 248	1 394 + 7	119,750			
	21 632	216	4 674 6 2	424 + 35	4 60	1 014 52	92 + 5	13 101	216	2,820,816	256 + 45	13,460			
Total number of bags consumed	1 376 734	357	491 388,495	2 2084	1 42, 422	500,507,220	27 968 + 34	1 577,617		555,527,283	20,943 + 24	1,561 222		555 798,592	31 720
All wtd for loss in spinning if on per lb			53 739 054			34 720 040				60 700 796				60 798,488	
Total quantity spun in England and Scotland				lbs		437 509 441		lbs		445 177 480				494 766,48	402 038 160
Deduct spun in Scotland						37 714 590				35 282 358				27 737 028	29 470 160
Total quantity spun in England						399 874 85				409 995 092				467 029 465	435,568,049
HOW DISPOSED OF															
Exported in yarn during the year (as per No 1)			149 214 47			130 101 913				409 905 092				131 937 035	167 130 025
Ditto in thread (as per No 2)			2 674 43			7 731 031				2 56, 795				2,520,325	
Ditto in manufactured goods (as per No 26)			171 032,150			100,520 654				302,360 687				194,841 369	
Limited quantity of yarn sent to Scotland and Ireland			7 650,000			8 821 363				10,734,850				10,814,318	
Exported in mixed manufactures not stated in the above named articles consumed in cotton			18,746,000			19,300 850				31 645 280				43,098 221	
Wings flock calendar bowls paper umbrellas hats and loss in manufacturing goods															
Balance left for home consumption and stock			50 613 245			399 874 85				37 873,040				48,858 406	455,569,240
Ditto ditto ditto 1846														87 774,049	
Ditto ditto ditto 1845														37 764 040	
Ditto ditto ditto 1844														30,036,245	
Ditto ditto ditto 1843														48,7 19,205	
Ditto ditto ditto 1842														28 760 374	
Ditto ditto ditto 1841														114,918,010	
Ditto ditto ditto 1840														60,312 674	
Ditto ditto ditto 1839														89 134 283	
Ditto ditto ditto 1838														63 057 802	
Ditto ditto ditto 1837														43 466 686	
Ditto ditto ditto 1836														49 937,800	
Ditto ditto ditto 1835														32 973 627	
Ditto ditto ditto 1834														64,367 907	

CULTIVATION, SUPPLY, AND MANUFACTURES OF COTTON

The variations in price of cotton-yarn of various degrees of fineness in each year, from 1833 to 1844 have been as follows—

YEARS	Yarn No 20 Price per lb		Yarn No 100 Price per lb		Yarn No 170 Price per lb	
	Cotton	Yarn	Cotton	Yarn	Cotton	Yarn
December	s.	d.	d	s d	d.	s d
1833.	8½	12½	14	3 3	19	7 10
1834.	9½	13½	17	3 0	22	7 16
1835	9½	14½	17	4 3	26	8 8
1836	10	15½	20	6 6	31	10 4
1837	8	12½	17	8 6	23	8 6
1838	6½	12	16	4 0	20	9 6
1839	6½	11	14	4 1	27	8 4
1840	5½	10½	12	3 7	21	7
1841	5½	9½	12	3 0	19	7 1
1842	5	8½	10	2 9	17	6 8
1843	4½	9	11	3 11	17	6 9
1844	4½	9½	11	2 11	17	6 9

This subject has had further light thrown upon it by the inquiries of the Factory Commissioners, from whose report the following tables have been extracted—

AVERAGE Price of Cotton, compared with Twist, at different Periods during the present Century

PERIODS	Cotton per lb	Twist Sold per lb	Average Num ber	Difference
From Dec. 1802 to Dec. 1805	s.	s.	d	d
" " 1805 " 1807	10 06	30 9	5	20 2
" " 1806 " 1807	21 54	26 79	25 78	17 1
" " 1807 " 1808	24 83	28	24 61	13 17
" " 1808 " 1809	26 83	41 91	24 37	13 08
" July 1809 " " 1809	20 73	37 01	21 69	16 28
Dec 1809 " July 1810	20 93	40 79	22 97	19 48
July 1810 " Dec 1810	19 75	38 51	22 96	18 70
Dec 1810 " July 1811	17 95	34 60	23 09	16 44
July 1811 " Dec 1811	17 43	32 1	23 19	11 28
Dec 1811 " July 1812	14 81	29 73	23 55	11 01
" July 1812 " Dec 1812	16 24	30 92	24 45	10 95
" Dec 1812 " July 1813	24 78	35 49	23 28	10 71
July 1813 " Dec. 1813	33 19	33 08	23 52	9 96
Dec 1813 " July 1814	33 52	46 92	23 05	13 40
July 1814 " Dec. 1814	31 67	43 40	26	13 3
Dec 1814 " July 1815	36 79	37 48	23 63	11 95
July 1815 " Dec. 1815	36 53	38 44	23	11 61
Dec 1815 " July 1816	30 47	37 74	23 1	17 27
July 1816 " Dec. 1816	28 73	33 5	23 3	13 07
Dec 1816 " July 1817	29 3	34 66	23 7	12 25
July 1817 " Dec 1817	30 44	33 6	23 46	12 16
Dec 1817 " July 1818	20 40	34 55	23 6	14 09
July 1818 " Dec 1818	21 13	32 29	23 4	11 33
" D. c. 1818 " July 1819	14 49	26 83	21 53	16 30
July 1819 " Dec 1819	19 65	2, 53	24 05	13 48
D. c. 1819 " July 1820	14 44	26 03	25 0	11 29
July 1820 " Dec 1820	11 68	21 40	23 19	9 8
Dec 1820 " July 1821	9 82	20 17	23 3	10 9

AVERAGE Price of Cotton, &c.—(continued.)

P E R I O D S		Cotton per lb	Twist Sold per lb	Average Num ber	Difference
From	Dec 1821 to	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
Dec	1821	2 51	15 45	2 33	0 54
July	1822	9 93	17 37	2 14	10 04
July	1822	8 34	19 14	2 6	10 8
Dec	1822	7 8	19 23	2 7	11 43
July	1823	8 24	19 63	23 34	11 29
Dec	1823	8 81	19 41	23 9	10 1
July	1824	8 78	19 00	26 1	10 31
Dec	1824	14	22 34	26 2	8 86
July	18 5	13 00	19 11	25 1	6 65
Dec	1825	7 6	16 8	27 3	8 9
July	1 26	6 82	16 17	30	8 35
Dec	18 6	6 95	14 97	30 95	8 02
July	18 7	7 34	14 77	30	7 43
Dec	18 7	7 46	13 77	37 41	6 74
July	18 28	6 64	13 3	28 23	6 66
Dec	18 3	6 23	15 96	24 23	6 73
July	18 29	6 34	13 48	2 62	7 09
Dec	18 29	7 01	13 28	17 85	6 87
July	18 30	6 83	11 72	26 77	5 90
Dec	18 30	6 65	12 88	28 88	6 17
July	18 31	6 82	12 37	2 40	5 5
Dec	18 31	6 97	12 75	26 29	6 19
July	18 32	24	12 61	3 22	5 37

COMPARATIVE Cost of Cotton Yarn in 1812 and 1830

Hanks per day per spindle			Price of cotton and waste per lb		Labour per lb		Cost per lb	
Number	1812	1830	1812	1830	1812	1830	1812	1830
40	3	2 75	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>
60	1 5	2 5	1 6	0 7	1 0	0 7	2 6	1 24
80	1 4	2	2 0	0 10	1 6	1 0	3 6	1 10
100	1 4	1 8	2 2	0 11	2 2	1 7	4 4	2 6
1 0	1 25	1 65	2 4	1 1	2 10	2 2	5 2	3 3
1 50	1	1 33	2 0	1 4	3 6	2 8	6 0	4 0
200	75	90	2 10	1 8	6 6	4 11	9 4	0 7
30	5	4 0	3 4	2 0	16 8	11 6	20 0	14 0
			4 0	2 8	21 0	24 0	30 0	22 2

Cost and selling Price of one Piece of Calico, from 1814 to 1833

Y E A R S	Price of one Piece in Warp		Price of one Piece in Weft		Expense of sizing &c	Cost price of one piece First Seven Years being Second Quality 74 s east third 74 s		Average prices sold for in Manchester through the year	
	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>		<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>	<i>s</i> <i>d</i>
1814	9 6	7 6	5 3	5 3	6	1 3 10	1 4 7		
1815	7 10	7 6	5 3	5 3		0 18 10	0 19 8		
1816	7 0	5 5	5 5	5 5		0 16 4	0 16 8		
181	6 6	5 9	5 9	5 9		0 15 3	0 16 11		
1818	6 6	5 4	5 4	5 4		0 10 1	0 10 8		
1819	6 3	4 2	4 2	4 2		0 13 0	0 13 0		
18 20	4 2	3 6	3 6	3 6		0 11 1	0 12 1		
18 1	3 9	3 6	3 6	3 6	5	0 9 10	0 9 8		
18 2	3 9	3 3	3 3	3 3		0 8 11	0 8 11		
18 3	3 9	2 2	2 2	2 2		0 8 8	0 8 8		
18 4	3 9	2 2	2 2	2 2		0 8 8	0 8 8		
18 5	3 9	2 2	2 2	2 2		0 8 8	0 8 8		
18 6	3 9	2 2	2 2	2 2		0 8 8	0 8 8		
18 7	3 9	2 2	2 2	2 2		0 8 8	0 8 8		
1 28	3 8	1 9	1 9	1 9		0 6 11	0 6 8		
1 9	3 8	1 10	1 10	1 10		0 6 11	0 6 8		
1 0	3 8	1 9	1 9	1 9		0 6 11	0 6 8		
1 1	3 8	1 9	1 9	1 9		0 6 11	0 6 8		
1 2	3 8	1 9	1 9	1 9		0 6 11	0 6 8		
1 3	3 8	1 9	1 9	1 9		0 6 11	0 6 8		

The diminution of value in the twist appears to amount to 59 per cent, and in the cloth to 68 per cent.

The variations in the value of cotton goods and yarn, so far as the same can be inferred from the average value of the quantities exported in each year, from 1830 to 1844, have been as follows —

AVERAGE Value per Yard of White or Plain, and of Printed or Dyed Cotton Manufactures, and per Pound Weight of Twist or Cotton Yarn exported from the United Kingdom, in each Year, from 1830 to 1844

YEARS	White or Plain Goods	Printed or Dyed Goods	Twist or Yarn	YEARS	White or Plain Goods	Printed or Dyed Goods	Twist or Yarn
1830	6 434	9 073	15 316	1838	4 817	6 087	12 564
1831	6 626	9 033	14 048	1839	4 757	6 041	11 578
1832	6 415	6 722	14 979	1840	4 324	5 765	11 390
1833	6 468	6 691	15 084	1841	4 103	5 665	14 138
1834	5 306	6 783	16 332	1842	3 634	5 061	13 568
1835	5 212	7 054	16 439	1843	3 422	4 816	13 254
1836	5 907	7 048	16 656	1844	3 487	4 917	13 197
1837	5 164	6 501	16 137				

The following statement, which is taken from Mr Dugald Bannattine's paper on the cotton manufacture inserted in the "Encyclopaedia Britannica," places in a very striking light the reduction that has been effected by machinery in the cost of spinning

PRICES of Cotton Yarn, 100 Hanks to the lb, in the following Years

YEARS	Per Pound.	YEARS	Per Pound	YEARS	Per Pound	YEARS	Per Pound
1760	8 d	1793	8 d	1800	8 d	1806	8 d
1767	38 0	1794	15 1	1801	8 0	1807	6 9
1768	35 0	1795*	19 0	1802	8 4	After many fluctuations	
1769	34 0	1796	25 0	1803	8 4	in	
1790	30 0	1797	19 0	1804	7 10	1809	3 2
1791	29 0	1798†	9 10	1805	7 10	1812	3 11
1792	18 1	1799	10 11				

\* Spun from Bourbon cotton

† Spun from Sea Island cotton.

STATEMENT, showing the Average Prices of Manufactured Goods Exported in 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, and 1845

DESCRIPTION	Nos Above	Length of Pieces	Weight of Pieces.	1844		1844		1844		1844		1844		1844		1844	
				1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844	1844
Calicoes printed and dyed	7	28	4 4	0 2	5 0	8 31	8 9	9 0	10 4	10 6	10 10	11 0	11 4	11 0	11 4	11 0	11 4
Calicoes plain	6	24	5 12	6 44	6 6	6 3	0 0	0 0	7 6	7 10	8 0	8 3	9 0	8 0	8 3	9 0	8 0
Cambrics and muslins	8	20	3 0	0 8	0 9	6 4	0 3	6 6	9 0	10 0	10 10	11 0	11 4	11 0	11 4	11 0	11 4
Cottons and laces mixed	14	40	8 0	0 7	9 5	9 4	3 0	4 4	9 0	9 9	9 10	10 2	10 4	10 2	10 4	10 2	10 4
Dimitis	3	60	12 0	19 9	21 0	20 0	20 0	20 0	19 10	18 10	18 10	18 10	18 10	18 10	18 10	18 10	18 10
Damasks and dimpers	10	30	10 0	19 10	19 11	19 0	10 0	19 0	19 0	19 0	19 0	19 0	19 0	19 0	19 0	19 0	19 0
Ginghams and checks	15	20	3 8	8 9	8 10	8 5	8 3	8 0	4 6	10 0	10 4	10 6	11 8	10 0	10 4	10 6	11 8
Laces and laces	11	20	2 8	9 7	9 8	9 1	0 9	0 9	9 0	9 0	9 0	9 0	9 2	9 0	9 0	9 2	9 0
Lace net &c	13	50	0 8	8 8	8 9	8 4	6 3	6 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Nankens	0	50	8 15	0 10	0 15	2 15	0 15	0 15	15 11	16 0	16 10	17 0	18 9	16 0	16 10	17 0	18 9
Quilts and riba	5	60	26 8	18 0	20 11	28 0	38 0	38 13	38 13	38 6	38 9	39 0	56 0	38 6	38 9	39 0	56 0
Tucks checks &c	14	50	90 0	18 9	19 0	18 4	18 2	18 9	18 9	18 10	19 0	20 0	25 4	18 10	19 0	20 0	25 4
Vegetable cords &c.	10	60	22 12	28 7	39 11	38 0	34 0	34 3	38 3	38 0	39 0	39 0	40 0	38 0	39 0	39 0	40 0
Counterpanes &c	4	number	7 8	4 2	4 2	4 0	4 0	4 0	4 0	3 0	3 0	3 0	3 0	3 0	3 0	3 0	3 0
Hosiery	12	dozen	2 8	9 0	9 1	8 0	8 0	8 0	9 0	9 0	9 0	9 0	10 0	9 0	9 0	10 0	11 0
Shawls and handkerchiefs	19		2 8	3 7	3 7	3 5	3 3	3 0	3 9	4 10	4 0	5 0	5 0	4 0	5 0	5 0	5 0
Tapes and bobbin	17		1 0	1 10	1 11	1 10	1 9	1 0	1 0	1 9	1 0	1 0	1 0	1 9	1 0	1 0	1 0

PRICES of Mule and Water Twist in Market, 1840 to 1846, inclusive

M U L E T W I S T													
Common Seconds							Best Seconds						
1840	1841	1842	1843	1844	1845	1846	1840	1841	1842	1843	1844	1845	1846
d	d	d	d	d	d	d	d	d	d	d	d	d	d
8	8 1/4	8 1/2	8 3/4	9	9 1/4	9 1/2	9 3/4	10	10 1/4	10 1/2	10 3/4	11	11 1/4
10 1/2	10 3/4	11	11 1/4	11 1/2	11 3/4	12	12 1/4	12 1/2	12 3/4	13	13 1/4	13 1/2	13 3/4
14 1/2	15	15 1/2	16	16 1/2	17	17 1/2	18	18 1/4	18 1/2	18 3/4	19	19 1/4	19 1/2
21 1/2	22	22 1/2	23	23 1/2	24	24 1/2	25	25 1/4	25 1/2	25 3/4	26	26 1/4	26 1/2

W A T E R T W I S T														
No	Common Seconds							Best Seconds						
	1840	1841	1842	1843	1844	1845	1846	1840	1841	1842	1843	1844	1845	1846
	d	d	d	d	d	d	d	d	d	d	d	d	d	d
6														
8	8 1/4	8 1/2	8 3/4	9	9 1/4	9 1/2	9 3/4	10	10 1/4	10 1/2	10 3/4	11	11 1/4	11 1/2
10	10 1/2	10 3/4	11	11 1/4	11 1/2	11 3/4	12	12 1/4	12 1/2	12 3/4	13	13 1/4	13 1/2	13 3/4
12	12 1/2	12 3/4	13	13 1/4	13 1/2	13 3/4	14	14 1/4	14 1/2	14 3/4	15	15 1/4	15 1/2	15 3/4
14	14 1/2	14 3/4	15	15 1/4	15 1/2	15 3/4	16	16 1/4	16 1/2	16 3/4	17	17 1/4	17 1/2	17 3/4
16	16 1/2	16 3/4	17	17 1/4	17 1/2	17 3/4	18	18 1/4	18 1/2	18 3/4	19	19 1/4	19 1/2	19 3/4
18	18 1/2	18 3/4	19	19 1/4	19 1/2	19 3/4	20	20 1/4	20 1/2	20 3/4	21	21 1/4	21 1/2	21 3/4

STATEMENT, showing the Weight of Yarn in Manufactured Cotton Goods Exported from England in 1846, also the Average Value per Piece, &c with the Total Amount of each Description

DESCRIPTION	Yards per Piece	No of Yards of each Description		Length in Yards	No of Pieces of each Description		Weight of Yarn in each Piece	Total Weight of Yarn Exported in Goods	Average Price of each Piece		TOTAL Value of Goods Exported in 1846
		Yards	Yards		Pieces	Pieces			s	d	
Cachecoes printed and dyed	14	267,054,797	18	18	9,585,742	4	4	40,527,858	9	0	4,729,974
Do ditto plain	7	616,835,181	44	44	25,419,877	5	12	140,263,248	7	9	8,472,430
Cambrics and muslins	4	4,159,009	40	40	225,596	3	0	609,064	7	0	78,045
Cotton and linen mixed	9	1,112,764	40	40	28,144	8	0	225,152	10	0	14,072
Dimities	5	564,417	60	60	1,4	12	0	5,8	21	6	509
Dimasies and diapera	3	9,005	36	36	258	10	0	2,640	29	5	270
Gravel and checks	10	291,490	26	26	29,574	3	8	103,090	9	1	13,521
Lawns and itones	6	8,111	20	20	105	2	8	1,012	10	0	202
Lace net &c	17	88,097	50	50	1,101,094	0	8	550,442	0	0	4,65,487
Bankets	18	124,563	40	40	2,118	8	4	25,043	15	4	2,412
Quilting and ribes	13	116,211	60	60	1,245	18	6	33,022	41	0	4,872
Light buck &c	19	143,015	50	50	2,881	20	0	5,20	19	8	2,814
Velvetons velvets &c	11	1,901,794	60	60	31,685	2	12	6	41	0	40,309
Coarceses &c	8	113,639	40	40	113,030	7	8	54,054	4	4	24,096
Hery	15	350,750	doz	doz	359,30	2	8	671,675	4	4	163,843
Shawl and handkerchief	10	545,673	do	do	54,673	1	8	1,364,577	3	1	107,341
Top and hot bins	18	1,128	do	do	14,8	1	0	12,128	2	0	1,218
Unsumrated	20	54,131	£	£	5,161	10	0	7,410	9	0	54,163
<b>Total Weight of Yarn Exported in Manufactured Goods in 1846</b>								194,811,309	18 1/2		15,100,283
Do ditto								15,130,655	12 1/2		8,837,2
Do ditto								3,205,335	1 1/2		171,666
<b>TOTAL Weight of Yarn and Value in 1846</b>								3,120,1749			24,954,41
Do ditto								332,066,327			22,018,8
Do ditto								3,302,110			20,633,109
Do ditto								3,281,110			18,094,27
Do ditto								26,214			1,064,594
Do ditto								2,175,174			17,404
Do ditto								229,712			16,840
Do ditto								28,053,073			17,462,060
Do ditto								18,18			17,963,347
Do ditto								18,37			16,133,859
Do ditto								18,40			16,636,408
Do ditto								18,35			14,506,575
Do ditto								18,11			17,311,253

*Wages of Labourers employed in Cotton Factories*—Mr Cowell, one of the commissioners of factory inquiry, obtained, when at Manchester in 1833, accurate returns from 151 of the principal mills in that town and its immediate vicinity, and in the adjoining manufacturing districts of Lancashire and Cheshire, employing 48,645 hands, specifying the departments in which they were respectively employed, the number, sex, and age of those employed in each, and the wages earned by each class during the month and week ending the 4th of May, 1833. The general results are as follows —

TABLE distributing the 48,645 Hands into Eight different Branches or Departments of Cotton-working, and showing the Aggregate Nett Earnings of the whole Number of the Operatives in each Branch, and the Average Nett Earnings of an Operative in each for sixty-nine Hours Work

EMPLOYED	Adults		Children under eighteen years		Total Number employed.	Aggregate Number of Hours worked by the whole Number of Males ending 4th of May 1833	Average Number of Hours worked by each	Aggregate Amount of their Nett Earnings, for the Month ending 4th of May 1833	Average Weekly Nett Earnings of each Operative calculated for sixty-nine Hours
	Males	Females	Males	Females					
	No.	No.	No.	No.					
Cleaning and spreading cotton	272	680	232	99	1,282	353,000 5	275 0	2 11 1 5	8 2 2
Carding	2,350	3,301	1,328	2,218	9,097	2,591,181	277 7	17 52 16 8	9 3 2
Mule-spinning	5,103	1,169	6,959	2,534	13,653	4,591,208 4	271 9	33 07 10 2	10 4 1
Throstle spinning	194	653	402	6 5	1,846	501,021 8	271 7	2 19 1 6	7 9
Reeling	116	3,354	43	573	3,312	506,618 8	273 2	3 23 14 3	7 11 1
Wooling	4,627	5,104	1,631	3,674	10,040	4,400,271 7	274 3	36,000 19 11	11 3 1
Roller-covering	61	87	6	16	170	47,504 0	278 0	4 14 15 7	12 1
As engineers firemen mechanics, &c.	937	7	84	1	980	270,780 7	273 7	4,021 17 2 2	20 6
	18,740	14,821	10,294	9,780	48,645	13,302,204 8	274 6	100,971 18 1 1 2	16 5

Subjoined is an account of the prices of the principal articles of provision in Manchester, from 1826 to 1832, both inclusive, also drawn up by the Chamber of Commerce —

ARTICLES		1826	1827	1828	1829	1830	1831	1832
		s d	s d	s d	s d	s d	s d	s d
Beef best.	per lb	0 6 1/2	0 6	0 6 1/2	0 6	0 6 1/2	0 6	0 7
Bacon	do	0 4 1/2	0 4	0 4	0 3 1/2	0 3	0 3 1/2	0 7
Bread flour	per 12 lbs	2 5	2 5	2 7	2 9	2 9	2 9	3 4
Do. wheaten	per 12 lbs	0 7 1/2	0 7 1/2	0 8	0 8 1/2	0 8 1/2	0 8	0 7 1/2
Cheese	do	2 3	2 4	2 3	2 2	2 3	2 4	2 2
Milk	per 9 lbs	1 7 1/2	1 8 1/2	1 7 1/2	1 5	1 6	1 6	1 2
Meat	per 252 lbs	9 0	4 9	5 8	0 0	6 0	0 3	4 3
Potatoes	per 10 lbs	0 6 1/2	0 7	0 6 1/2	0 4 1/2	0 5	0 5 1/2	0 5 1/2
Pork	per lb	0 6 1/2	0 7	0 6 1/2	0 4 1/2	0 5	0 5 1/2	0 5 1/2

TABLE showing the Average Nett Earnings of certain Classes of Operatives employed in the Four Processes of Carding, Mule-spinning, Throstle-spinning, and Weaving

Denomination of Process in which employed	Class of Operatives	Classification as respects Sex and Age	Total	TOTAL	Average	Aggregate	Average
			Number of Persons employed	Number of Hours worked by them during the Month ending 4th of May 1833	Number of Hours worked by each	Nett Earnings for the Month ending 4th of May 1833	Weekly Nett Earnings of each individual in each Process calculated for Sixty nine Hours
Carding	Carders or Overlookers	Male adults	676	182 495 9	275 2	1762 17 3½	1 3 0
	Jack framementers	Principally female adults	696	180 385 0	273 5	1 103 10 3½	0 8 0
	Bobbin framementers	Ditto ditto	945	261 650 1	276 8	1 414 3 5	0 7 5½
	Drawing tenters	Ditto ditto	1 631	342 287 3	2 5 7	2 265 3 8½	0 7 5½
Mule spinning	Overlookers	Male adults	145	40 018 0	273 9	844 2 2	1 9 3
	Spinners	Male and female adults but principally the former	3 797	1 046 252 0	273 5	19 484 3 5	1 5 8
		Process.	Male and female adults and non adults but principally the latter	7 157	1 066 804 8	273 8	7 688 14 8½
Throstle spinning	Savengers	Male and female non adults	1 247	340 010 1	272 6	712 2 1½	0 2 10½
	Overlookers	Male adults	82	2 371 9	27 8	369 14 1½	1 3 4½
	Spinners	Female adults and non adults	1 1 3	305 712 4	272 2	1 716 17 6½	0 7 9
	Overlookers	Male adults	400	109 577 0	273 9	3 088 1 4	1 6 3½
Weaving	Warpers	Male and female adults	332	30 060 2	273 0	303 5 0	0 12 3
	Weavers	Male and female adults male and female non adults but chiefly female	10 171	2 784 278 7	273 7	21 835 9 6½	0 10 10
	Dressers	Male adults	536	320 771 0	276 0	4 950 4 1½	1 7 9½

The wages paid to the labourers in cotton factories, and other descriptions of work people, in Manchester, is stated in the following table for 1832, since which there has been no important change, drawn up by the Manchester Chamber of Commerce —

DESCRIPTION	AMOUNT		DESCRIPTION	AMOUNT	
	£ s d	£ s d		£ s d	£ s d
Spinners men	1 0 0	to 1 5 6	Wenings by Hand—continued		
women	0 10 0	to 0 15 0	Quality		
Stretchers	1 3 0	to 1 5 0	Checks fancy	men	0 7 0 to 0 7 0
Twist (boys and girls)	0 4 7	to 0 7 0	children		0 5 0 to 0 7 0
Warpers	0 1 0	to 0 2 8	Cambrics	all ages	0 6 0 to 0 6 8
Men			Quiltings	men and women	0 3 0 to 0 12 0
In the Card room			Fastan-cutters	all ages	0 10 0 to 0 12 0
Young women	0 11 5	to 0 1 0	Machine makers	men	1 5 0 to 1 10 0
Children	0 0 0	to 0 5 0	Iron foundries	do	1 8 0 to 1 10 0
Throstle spinners	0 5 0	to 0 9 0	Dyers and dressers	do	0 15 0 to 1 0 0
Reelers	0 5 0	to 0 9 0	Do	do	0 12 0 to 0 14 0
			Do	do	0 15 0 to 0 10 0
			Tailors	men	0 18 0
Weavers by Power			Porters		0 14 0 to 0 15 0
Men	0 13 0	to 0 10 10	Packers		1 0 0
Women	0 8 0	to 0 12 0	Shoemakers		1 5 0 to 0 16 0
Dressers men	1 8 0	to 3 10 0	Whitewashers		1 2 0 to 1 4 0
Winders and warpers	0 8 0	to 0 11 0	Waxers		1 4 0 to 1 8 0
Mechanics	1 4 0	to 1 6 0	Carpenters		1 4 0
			Stoneasons		0 16 0 to 1 2 0
Weaving by Hand			Blacklayers		0 17 0 to 1 0 0
Woven by			Bricklayers labourers		0 12 0
Quality			Painters		0 15 0
Naughts, fancy men	0 9 0	to 0 15 0	Masters		0 3 8 per day
common children and women	0 5 0	to 0 8 0	Plasterers		0 19 0 to 1 1 0
best men	0 10 0	to 0 13 0	Spademen		0 10 0 to 0 15 0

The following additional statements of the cultivation of cotton in the Presidency have been furnished to us since the foregoing sheets were printed

## COTTON Cultivation in the Surat Collectorate

Y E A R S	Government Land cultivated with			In the Proportion of for	
	Cotton	Other Products	TOTAL	Cotton	Other Products
	<i>beegas</i>	<i>beegas.</i>	<i>beegas</i>	<i>per cent.</i>	<i>per cent.</i>
1834-35	43 331	181 578	224 259	18.9	81.15
1835-36	49 217	150 039	209 249	23.47	76.53
1836-37	35,877	191 131	231 598	17.19	82.81
1837-38	62,845	179 131	241 976	26.07	74.03
1838-39	61 550	121 549	213 106	28.90	71.10
1839-40	51 867	265,378	257 460	20.17	79.83
1840-41	48 068	289 239	327 260	14.67	85.33
1841-42	71 343	151 025	202 378	37.19	72.81
1842-43	57 495	217 109	274 548	20.99	79.01
1843-44	36 249	221,633	258 088	14.04	85.96
1844-45	65 933	179 007	245 000	26.91	73.09
1845-46	67 176	175,598	232 769	29.56	70.44
<b>TOTAL</b>	<b>618,915</b>	<b>2,284,706</b>	<b>3,927 920</b>		
<b>Average of 12 years</b>	<b>53,669</b>	<b>190,384</b>	<b>245 953</b>	<b>22</b>	<b>78</b>

## COTTON Cultivation in the Candesh Collectorate

Y E A R S	Government Land cultivated with			In the Proportion of for	
	Cotton	Other Products.	TOTAL.	Cotton	Other Products
	<i>beegas</i>	<i>beegas</i>	<i>beegas</i>	<i>per cent</i>	<i>per cent</i>
1834-35	91 433	766 680	858 112	10.65	89.35
1835-36	119 694	965,847	1,085 541	12.58	87.42
1836-37	94 727	963 425	1,058 215	9.49	90.51
1837-38	121 194	845 174	1 066 368	11.30	88.70
1838-39	89 435	948,203	1 037 638	8.62	91.38
1839-40	59 273	1 015 293	1 107 536	5.33	94.67
1840-41	76 014	959 260	1 071 374	7.10	92.90
1841-42	123 793	987 437	1 111 230	11.14	88.86
1842-43	104 496	984 3 9	1 093 325	9.07	90.93
1843-44	87 512	1 061 481	1 069 969	8.07	91.93
1844-45	119 799	923 830	1 043 729	11.45	88.55
1845-46	129 533	1,010 201	1 145,734	11.30	88.70
<b>Total</b>	<b>1 234 954</b>	<b>11 788,592</b>	<b>12 543 186</b>		
<b>Average of 12 years</b>	<b>104 549</b>	<b>940,716</b>	<b>1 045 265</b>	<b>10.94</b>	<b>89.06</b>

## COTTON Cultivation in the Sholapur Collectorate

Y E A R S	Government Land cultivated with			In the Proportion of for	
	Cotton	Other Products	TOTAL	Cotton	Other Products
	<i>acres</i>	<i>acres.</i>	<i>acres.</i>	<i>per cent</i>	<i>per cent</i>
1834-35	2 369	496 100	498 029	0.62	99.38
1835-36	2 719	512 690	515 409	0.54	99.46
1836-37	29 929	607 500	720 548	3.18	96.82
1837-38	21 841	776,604	806 44	3.70	96.30
1838-39	38 445	813 177	868 622	4.09	95.91
1839-40	38 001	1 020,202	1 078 600	3.38	96.62
1840-41	55 213	1 232 189	1 707 402	4.22	95.78
1841-42	69 454	1 394 471	1 413,925	3.42	96.58
1842-43	68,339	1 520 640	1,598 979	4.36	95.64
1843-44	64 607	1 344 814	1 409,7 1	4.39	95.61
1844-45	75 436	1 510 348	1 591 784	4.74	95.26
1845-46	51 416	1 062,581	1 118 997	3	97
<b>Total</b>	<b>515,750</b>	<b>12,047 063</b>	<b>12,562,813</b>		
<b>Average of 12 years</b>	<b>42 979</b>	<b>1 007 255</b>	<b>1 130 24</b>	<b>3.47</b>	<b>96.53</b>



STATEMENT, showing the extent of Government Land under Cultivation in the following Collectorates of the Bombay Presidency, distinguishing the Lands cultivated with Cotton from those cultivated with other Products

YEARS	BROACH		SURAT		CANDEISH		SHOLAPOOR	
	Cotton.	Other Pro- ducts.	Cotton	Other Pro- ducts	Cotton	Other Pro- ducts.	Cotton	Other Pro- ducts
	beegas	beegas.	beegas	beegas	beegas	beegas	acres	acres
1834-35	198,015	392 078	4,231	181 978	91 433	760,089	2,569	405 460
1835-36	274,609	268,232	4 217	180 039	119 498	800 837	2 710	619 890
1836-37	244 086	242 232	29,877	169 121	51 757	903 438	22 922	697 860
1837-38	261 667	328 328	62 845	178 131	121 194	545 174	20 841	776 604
1838-39	323 640	264 893	61 990	151 518	89 436	948 393	35 445	633 177
1839-40	267 571	210,894	81 697	205 968	98,278	1 015,963	68,001	1 020 500
1840-41	268 162	321 023	49 026	209 823	6 014	985 360	68 215	1 259 169
1841-42	230 409	269 583	71 243	191 020	183 528	987 437	49 454	1,094 471
1842-43	268 769	372,260	87 439	117 109	108 946	884 373	68 130	1,520 969
1843-44	317 446	408,216	96,349	221 823	87 912	1 001 451	64 607	1 344 114
1844-45	2 3 480	348 325	68,943	179 067	119 39	982 889	79 339	2 516 748
1845-46	271 048	333 935	57 176	178 508	199,833	1 016,461	81 510	1 602,381
TOTAL	3 212 118	4 158 942	649 915	2 284 006	1 284 594	11 268,292	918,750	13 047 063
Average of twelve y ars	267 677	346,578	53 650	190,324	104 549	948 716	42 979	1 087 253

A TABLE showing the comparative Cultivation of Cotton with other Products, on the Government Lands in the following Collectorates of the Presidency of Bombay

YEARS	BROACH		SURAT		CANDRISH		SHOLAPOOR	
	Cotton	Other Products	Cotton	Other Products	Cotton	Other Products	Cotton	Other Products.
	per cent.	per cent	per cent	per cent	per cent	per cent.	per cent.	per cent
1834-35	73 52	66 48	16 87	81 13	10 65	89 35	0 09	9 38
1835-36	44 72	57 28	21 47	78 53	12 39	87 12	0 44	99 56
1836-37	41 43	5 37	17 19	84 81	9 43	90 51	3 18	96 82
1837-38	46 1	63 88	25 07	74 03	11 36	88 64	2 0	96 30
1838-39	54 42	45 08	29 90	71 10	8 69	91 38	4 08	9 98
1839-40	49 1	50 96	20 17	9 83	8 33	91 67	6 38	0 02
1840-41	4 31	28 60	18 67	81 33	1 10	99 90	4 22	95 78
1841-42	41 27	28 73	27 19	72 81	11 14	88 86	3 42	1 08
1842-43	41 55	58 07	20 92	79 08	9 97	90 03	4 06	0 74
1843-44	34 77	65 23	14 04	85 96	8 07	91 93	4 58	0 42
1844-45	44 11	51 99	26 91	73 09	11 48	88 52	4 74	95 26
1845-46	45 35	54 68	24 56	76 44	11 39	8 70	8	97 96
Average of twelve y ars	45 58	66 42	22	78	10 04	89 96	3 47	9 53

EXPORT of Manufactured British Cottons and Yarns from Bombay to the Ports of the Concan in and during the following Years

YEARS	Goods not Described		Goods Plain		Goods Dyed and Printed		Yarns		TOTAL.
	Pieces	Value	Pieces	Value	Pieces	Value	Weight	Value	
	boxes	rupees	number	rupees	number	rupees	number	rupees	
1836-37	267 281	2,011,251	210 369	1 067 494	74 031	244 115	44 981	46 057	2,057 408
1837-38	253 36	120 784	252 365	1 19 249	40 199	299 912	24 342	19 359	1 329 652
1839-40			234 13	2 20, 224	21 594	77 64	84 86	40 154	1 124 542
1841-41			390 150	1 582 475	1 1 14	157 282	67 079	85 187	2 194 034
1 41-42			216 596	1 19 699	4 486	369 891	123 600	96 348	1 665 506
1843-43			24 216	1 453 291	41 067			1 0 016	1 813 372
1 43-44			52 575	3 78 511	5 112	311 53	410 420	351 069	1 44,202
1844			1 35	861 53	41 862	205 3	30 23	324 698	1 491 053
184-4			135 334	7 550	3 42	1 7 088	236 196	216 970	1 173 411
J 742		132 135		11 088 557				1,389 918	16,611 236
Average of ten y ars		15 211		1 10 3		03 172		12 091	1 691 123
		2 1 1 1		211,853		4 9 917		5,14 990	2,166,419

**EXPORT of Manufactured British Cottons and Yarn from Bombay to the Ports of Guzerat, during the following years**

YEARS	Goods not described		Goods Plain		Goods Dyed and Printed		Yarn			TOTAL Value
	Pieces	Value	Pieces	Value	Pieces	Value	Weight	Value	Amount.	
1836-37	number	rupees	number	rupees	number	rupees	lbs	rupees	rupees	
1837-38	316,010	26,40,995	862,457	15,30,050	24,5,2	1,46,739	1,25,503	10,46,739	25,29,54	
1838-39	26,723	2,60,347	464,019	15,36,132	18,25	1,2,324	1,204,756	8,3,168	5,21,14	
1839-40			611,0	21,61,256	78,83	8,4,36	2,149,06	9,3,290	26,45,02	
1840-41			671,660	22,14,655	102,044	5,847	1,446,79	9,3,554	28,6,66	
1841-42			1,17,227	26,26,914	9,2,655	6,0,19	1,796,61	0,101	41,5,113	
1842-43			691,808	2,56,203	123,999	8,87,23	1,739,631	1,18,940	56,1,292	
1843-44			86,618	25,01,225	111,363	5,4,742	1,990,719	1,46,762	50,5,032	
1844-45			1,041,50	3,2,230	189,938	5,60,749	1,372,18	44,042	50,6,852	
1845-46			837,214	2,9,5,7,5	133,660	7,6,00	1,020,497	8,9	4,4,467	
<b>TOTAL</b>		28,16,122		2,37,33,159		45,44,116		96,31,28	4,0,55,925	
<b>Average of ten years</b>		2,84,64		23,73,315		4,54,411		9,63,22	40,5,092	
		£28,404		£23,331		£45,441		£96,312	£41,559	

**COMPARATIVE View of the Import of Manufactured Cotton Goods and Yarn into Bombay from the Ports of the United Kingdom**

YEARS	Plain Cottons		Printed Cottons		Dyed Cottons		Cotton Yarn		TOTAL VALUE	
	Pieces	Value	Pieces	Value	Pieces	Value	Weight	Value	Pieces	£
1836-37	number	rupees	number	rupees	number	rupees	lbs	rupees	rupees	£
1837-38	1,842,311	24,08,060	192,113	11,85,060			1,53,69	12,18,460	9,12,665	291,346
1838-39	861,069	29,02,42	3,1,232	19,29,637			2,3,543	14,2,4	71,14,825	711,463
1839-40	1,305,896	63,30,903	133,965	13,2,16	44,108	2,02,315	2,03,046	14,51,924	76,98,142	769,564
1840-41	1,236,119	8,1,22	1,070	8,14,95	157,808	8,95,552	2,129,165	11,96,897	8,27,79	281,740
1841-42	1,042,529	70,93,681	265,820	15,05,72	364,441	14,48,069	15,995	16,54,960	112,91,88	1,329,178
1842-43	1,093,214	64,97,327	2,336	11,0,648	145,044	10,09,113	1,763,18	10,58,3,0	0,67,461	96,740
1843-44	2,17,780	7,11,54	208,66	16,39,50	2,528	4,55,10	3,05,269	15,63,004	1,66,10,227	1,61,022
1844-45	3,169,335	1,00,24,574	163,06	0,82,024	130,196	6,13,369	5,23,99	21,03,78	1,41,29,61	1,402,36
1845-46	4,183,623	1,00,97,806	19,51	0,26,8	327,267	8,511,5	4,12,251	34,16,885	19,324	1,52,422
1846-47	3,215,171	60,94,153	128,64	5,71,66	94,172	0,48,342	1,668,349	20,93,331	59,96,6,5	599,509
<b>TOTAL</b>		6,83,20,849		1,02,10,619		50,83,566		1,69,56,747	10,14,79,679	10,147,567
<b>Average of ten years</b>		68,27,084		10,21,631		5,98,356		16,93,8,4	1,01,47,697	
		£68,27,084		£102,1631		£5,98,356		£169,567	£1,014,796	

\* And yards 1343 say pieces 70 † And cases 15, say pieces 1800 ‡ And cases 183 say pieces 28,200.  
 † And yards 85,893 say pieces 660 ‡ And cases 10, say pieces 1000.

The following table, drawn up by Mr Chapman, applies to the thirteen years, ending with 1846, and is drawn from Burn's Statistics of the Cotton Trade, and from the Report of the Bombay Cotton Committee, Parl Pap 712, of 1847

The total supply to England from all quarters during those thirteen years, was, according to Burn's, 6,242,168,603 lbs, the annual average was, therefore, 480,166,046 lbs, consequently, multiplying the proportionate supply in the table from each country or port by 62½ (or more nearly by 62.42, &c), will give the total supply it contributed in thirteen years, likewise, multiplying by 4.8, will give its average annual supply

The total export from India to England in thirteen years is stated in the Report of the Bombay Committee to be 866,390,353 lbs, the import into England from India is given in Burn's, at 800,518,822 lbs, whether this disagreement arises from the difference of stocks and cotton in transit at the be-

gunning and end of the period, or from different estimation of the weight of bales, it seems probable it affected all the imports alike, and, therefore, the exports from each of the four ports have been reduced proportionably, in order to produce a total, agreeing with Burn's total of the imports

Bombay exports largely to other countries besides England, chiefly to China. The total exports in thirteen years were 1,524,943,729 lbs

The imports from Bombay, from its dependent ports, during the thirteen years, were 1,401,777,288 lbs, of which only 717,616,000 lbs were exported to England, besides this, the export accounts of the several Indian ports do not exactly agree with the import accounts at Bombay To derive the total export of the small ports from this table (which is framed only to give the supply to England), multiply for the several ports of Guzerat, Concan, and Canara, by 112 for thirteen years, and by 83 for a single year, for Cutch and Scinde, multiply by 112 and 93 respectively

GENERAL View of the proportionate Supply of Cotton to all England, showing how much out of every 100,000,000 lbs has been contributed by each Country or Port

C O U N T R I E S	Amount.	C O U N T R I E S	Amount
<b>TOTAL IMPORT INTO ENGLAND</b>	lbs	<b>COCHIN (see above)</b>	lbs
From America	79 35 00	From Omurgaum	203
Brazil	4 069 609	Tarr poor	318
Florida	2 912 000	Malim	225
West Indies	925, 00	Bilwan	5
East India (see below)	13,824 400	Calicut	1,247,816
		Balsite	
		Castilla	
<b>EAST INDIES (see above)</b>	100 000 000	Panaji	1,832 347
		Senegal	
Bombay (see below)	11 496 200	Alibon	79
Cochin	209 450	Yennar	
Madras	82 440	Rigar	4,478
Tutucorin	231 100	Soo er droog	362
		Rajapoor	
		Anganwell	36 380
<b>BOMBAY (see above)</b>	12,924 400	Ratongueery	2 000
		Yazindroog	195 000
Guzerat (see below)	6,383 410	Malwan	145 896
Canara (ditto)	3 273 850	Sawnat Wazroo	
Malabar and Canara ditto	1 243 770		
Cutch and Baluchistan (ditto)	875 460		
All other quarters	11 770		
		<b>MALABAR AND CANARA (see above)</b>	3,273,880
		Canara	1 147 541
<b>GUZERAT (see above)</b>	11 496,200	Malabar	97 320
			1 244,770
Tonkaria	710 490	<b>CUTCH AND SCINDE (see above)</b>	
Serri	1 125 200	Toona, Rohoor and Wowanis	184 096
Bah	1 819 510	Mondroer	47 508
Dollra Ac	1,657 630	Mandavee	64 759
Bb woulgar	642 040	Inkya	1 194
Woo	422,360	Luckput.	1 763
	6,383,410		
		All Cutch	299 783
		Scinde	27 675
			575 458

## CULTIVATION OF SILK IN INDIA

The breeding of silkworms appears to have originated in China, where, however, the cocoons were found attached to the trees, in a wild state in the woods. According to Pliny, silkworms were raised in Cyprus, and the silk collected in great quantities about 150 years before the birth of Christ. In China, where different kinds of silkworms are reared, the best and most prolific is the *Fagara*, or a kind of pear-tree worm. The others are the pine-tree and the oak tree. Of the different kinds of silkworms or caterpillars, the *Phalaena Bombyx* is that which supplies the chief silk of Europe. The *Phalaena Atlas* is the most prolific in the quantity of silk produced by each worm. Woven silks were worn at Rome in the time of Pompey and Julius Cæsar, but it was probably then as dear as its weight in gold. Helio-gabalus wore a robe said to be wholly of silk (*Holosericum*). It was afterwards worn sometimes by the common people. China was the country from which woven silks then appear to have been brought, down to the sixth and even seventh century. About the middle of the sixth century the eggs of the silkworm were carried from China by Persian monks to Constantinople, and reared in that neighbourhood, and probably in Asia Minor.

British India might supply vast quantities of raw silk, but the quality, chiefly from inferior preparation, is also inferior to the raw silk imported from other countries. The silk goods of India are also far inferior to those of China.

Reeling was introduced into India by the Company as far back as 1760. But little improvement, either in culture or preparation, seems to have been made since that period.

## IMPORTATION into England of Raw Silk from Bengal and China during the following Years

YEARS	SILK BENGAL.				SILK CHINA.			
	Quantity		Value at 20s per lb		Quantity		Value at 20s per lb	
	Imported	Exported	Imported	Exported	Imported	Exported	Imported	Exported
1791	lbs	lbs	£	£	lbs.	lbs	£	£
1791	441 358	37 455	444 358	37 455	199 984	8, 209	8 9 803	11 402
1792	425 234	13 405	425 234	13 405	102 279	5 210	143 230	7 434
1793	736 081	19 293	736 081	19 293	171 968	3 709	946 57	5 76
1794	581 400	61 989	521 400	61 989	39 7 1	8 605	132 559	19 127
1795	381 199	32 547	381 199	32 547	134 225	3 029	291 15	5 079
1796	847 636	70 174	347 536	70 174	12 068	7 279	18 155	10 190
1797	92 204	59 760	92 204	59 760	78 20	4 844	199 228	6 233
1798	353 374	38 090	853 394	38 090	130 196	6 820	194 774	6 48
1799	514 819	51 284	654 819	51 283	53 694	2 459	89 085	2 845
1800	683 696	23 113	567 696	23 113	92 345	1 270	199 307	1 786
1801	891 825	27 837	351 825	27 837	131 335	8 471	184 869	8 410
1802	111 37	28 630	111 377	28 630	75 358	3 611	105 543	5 333
1803	405 404	19 748	405 404	19 748	74 358	4 374	104 354	6 1 3
1804	621 878	44 692	624 878	44 692	20 352	4 860	126 506	0 2 2
1805	845 497	21 060	845 497	21 900	76 359	3 041	106 292	5 517
1806	472 891	17 225	471 891	17 225	18 667	508	28 469	1 364
1807	516 225	26 444	613 225	26 444	53 777	2 491	77 387	2 845
1808	380 227	29 104	280 227	29 104	117 855	5 843	164 997	5 980
1809	164 100	10 483	164 100	10 483	90 683	3 708	120 811	3 291
1810	97 376	8 340	97 376	8 340	84 770	1 637	75 136	2 091
1811	414 404	4 800	414 404	4 800	81 357	4 138	115 253	1 073
1812	96 414	18 121	96 414	18 121	150 629	2 205	210 880	3 067
1813	861 379	43 128	861 379	43 128	210 129	0 51	809 590	13 007
1814	164 653	264 957	764 657	264 957	966 897	89 327	13 453	134 058
1815	543 063	64 251	553 063	64 251	103 367	5 945	144 713	6 332
1816	972 130	47 264	971 130	47 364	146 878	34 160	205 629	47 824
1817	953 817	43 870	953 817	43 870	141 325	2 435	197 825	4 900
1818	1 078 671	11 367	1 078 671	11 167	97 115	1 226	379 471	1 736
1819	1 051 63	10 824	1 051 635	10 824	274 119	2 719	385 154	3 613
1820	874 228	15 330	874 228	15 330	322 673	2 546	311 743	3 570

By the prohibitory law of 1765 the English silk manufacturers were *legally* secured in the exclusive possession of the home market. The slow progress of this fabric will appear from the following statement of the quantities of silk entered for consumption in the United Kingdom, compiled by Mr Porter —

PERIODS		Raw	Waste	Thrown	TOTAL
		lbs	lbs	lbs	lbs
1765	1766 and 1767	325,000		275,000	15,000
1768	1769 and 1770	644,000		25,000	81,000
1771	1772 and 1773	1,055,000	2,000	3,000	1,110,000
1813 (with end of 1814) first years of peace and fifty years		1,055,000	2,000	293,000	1,415,000
1841 (with end of 1842) last three years prior to the change		1,900,000	1,000	3,500	2,399,000

YEARS	Raw	Waste	Thrown	TOTAL	YEARS	Raw	Waste	Thrown	TOTAL
	lbs	lbs	lbs	lbs		lbs	lbs	lbs	lbs
1814	1,000,000	2,000	3,000	1,005,000	1850	2,800,000	650,000	3,000,000	4,375,000
1815	1,000,000	2,000	3,000	1,005,000	1851	2,800,000	650,000	3,000,000	4,375,000
1816	1,000,000	2,000	3,000	1,005,000	1852	2,800,000	650,000	3,000,000	4,375,000
1817	1,000,000	2,000	3,000	1,005,000	1853	2,800,000	650,000	3,000,000	4,375,000
1818	1,000,000	2,000	3,000	1,005,000	1854	2,800,000	650,000	3,000,000	4,375,000
1819	1,000,000	2,000	3,000	1,005,000	1855	2,800,000	650,000	3,000,000	4,375,000
1820	1,000,000	2,000	3,000	1,005,000	1856	2,800,000	650,000	3,000,000	4,375,000
1821	1,000,000	2,000	3,000	1,005,000	1857	2,800,000	650,000	3,000,000	4,375,000
1822	1,000,000	2,000	3,000	1,005,000	1858	2,800,000	650,000	3,000,000	4,375,000
1823	1,000,000	2,000	3,000	1,005,000	1859	2,800,000	650,000	3,000,000	4,375,000
1824	1,000,000	2,000	3,000	1,005,000	1860	2,800,000	650,000	3,000,000	4,375,000
1825	1,000,000	2,000	3,000	1,005,000	1861	2,800,000	650,000	3,000,000	4,375,000
1826	1,000,000	2,000	3,000	1,005,000	1862	2,800,000	650,000	3,000,000	4,375,000
1827	1,000,000	2,000	3,000	1,005,000	1863	2,800,000	650,000	3,000,000	4,375,000
1828	1,000,000	2,000	3,000	1,005,000	1864	2,800,000	650,000	3,000,000	4,375,000
1829	1,000,000	2,000	3,000	1,005,000	1865	2,800,000	650,000	3,000,000	4,375,000
1830	1,000,000	2,000	3,000	1,005,000	1866	2,800,000	650,000	3,000,000	4,375,000
1831	1,000,000	2,000	3,000	1,005,000	1867	2,800,000	650,000	3,000,000	4,375,000
1832	1,000,000	2,000	3,000	1,005,000	1868	2,800,000	650,000	3,000,000	4,375,000
1833	1,000,000	2,000	3,000	1,005,000	1869	2,800,000	650,000	3,000,000	4,375,000
1834	1,000,000	2,000	3,000	1,005,000	1870	2,800,000	650,000	3,000,000	4,375,000
1835	1,000,000	2,000	3,000	1,005,000	1871	2,800,000	650,000	3,000,000	4,375,000
1836	1,000,000	2,000	3,000	1,005,000	1872	2,800,000	650,000	3,000,000	4,375,000
1837	1,000,000	2,000	3,000	1,005,000	1873	2,800,000	650,000	3,000,000	4,375,000
1838	1,000,000	2,000	3,000	1,005,000	1874	2,800,000	650,000	3,000,000	4,375,000
1839	1,000,000	2,000	3,000	1,005,000	1875	2,800,000	650,000	3,000,000	4,375,000
1840	1,000,000	2,000	3,000	1,005,000	1876	2,800,000	650,000	3,000,000	4,375,000
1841	1,000,000	2,000	3,000	1,005,000	1877	2,800,000	650,000	3,000,000	4,375,000
1842	1,000,000	2,000	3,000	1,005,000	1878	2,800,000	650,000	3,000,000	4,375,000
1843	1,000,000	2,000	3,000	1,005,000	1879	2,800,000	650,000	3,000,000	4,375,000
1844	1,000,000	2,000	3,000	1,005,000	1880	2,800,000	650,000	3,000,000	4,375,000
1845	1,000,000	2,000	3,000	1,005,000	1881	2,800,000	650,000	3,000,000	4,375,000
1846	1,000,000	2,000	3,000	1,005,000	1882	2,800,000	650,000	3,000,000	4,375,000
1847	1,000,000	2,000	3,000	1,005,000	1883	2,800,000	650,000	3,000,000	4,375,000
1848	1,000,000	2,000	3,000	1,005,000	1884	2,800,000	650,000	3,000,000	4,375,000
1849	1,000,000	2,000	3,000	1,005,000	1885	2,800,000	650,000	3,000,000	4,375,000
1850	1,000,000	2,000	3,000	1,005,000	1886	2,800,000	650,000	3,000,000	4,375,000
1851	1,000,000	2,000	3,000	1,005,000	1887	2,800,000	650,000	3,000,000	4,375,000
1852	1,000,000	2,000	3,000	1,005,000	1888	2,800,000	650,000	3,000,000	4,375,000
1853	1,000,000	2,000	3,000	1,005,000	1889	2,800,000	650,000	3,000,000	4,375,000
1854	1,000,000	2,000	3,000	1,005,000	1890	2,800,000	650,000	3,000,000	4,375,000
1855	1,000,000	2,000	3,000	1,005,000	1891	2,800,000	650,000	3,000,000	4,375,000
1856	1,000,000	2,000	3,000	1,005,000	1892	2,800,000	650,000	3,000,000	4,375,000
1857	1,000,000	2,000	3,000	1,005,000	1893	2,800,000	650,000	3,000,000	4,375,000
1858	1,000,000	2,000	3,000	1,005,000	1894	2,800,000	650,000	3,000,000	4,375,000
1859	1,000,000	2,000	3,000	1,005,000	1895	2,800,000	650,000	3,000,000	4,375,000
1860	1,000,000	2,000	3,000	1,005,000	1896	2,800,000	650,000	3,000,000	4,375,000
1861	1,000,000	2,000	3,000	1,005,000	1897	2,800,000	650,000	3,000,000	4,375,000
1862	1,000,000	2,000	3,000	1,005,000	1898	2,800,000	650,000	3,000,000	4,375,000
1863	1,000,000	2,000	3,000	1,005,000	1899	2,800,000	650,000	3,000,000	4,375,000
1864	1,000,000	2,000	3,000	1,005,000	1900	2,800,000	650,000	3,000,000	4,375,000

Note. — In the year 1841, the quantity of raw silk imported from 1840 and 1841 total quantities imported only are stated.

TOTAL Quantities of Raw, Waste, and Thrown Silk, Imported and Lusted for Home Consumption in the United Kingdom, from 1814 to 1848

YEARS	From the East India, China Siam, &c. and the C of Good Hope	From Turkey and France	From other Parts of Asia and Italy	From all Parts	Gross amount of Duty y counted
	lbs	lbs	lbs	lbs	£ s d
1814	1,000,000	2,000	3,000	1,005,000	778 02 16 3
1815	1,000,000	2,000	3,000	1,005,000	11 022 12 1
1816	1,000,000	2,000	3,000	1,005,000	34 196 7 1
1817	1,000,000	2,000	3,000	1,005,000	589,640 1 0
1818	1,000,000	2,000	3,000	1,005,000	62,431 17 6
1819	1,000,000	2,000	3,000	1,005,000	551,514 12 2
1820	1,000,000	2,000	3,000	1,005,000	614,818 15 7
1821	1,000,000	2,000	3,000	1,005,000	724,42 7 2
1822	1,000,000	2,000	3,000	1,005,000	75,451 19 9
1823	1,000,000	2,000	3,000	1,005,000	774,620 18 1
1824	1,000,000	2,000	3,000	1,005,000	3,384 7 7
1825	1,000,000	2,000	3,000	1,005,000	946,430 12 2
1826	1,000,000	2,000	3,000	1,005,000	84,84 6 11
1827	1,000,000	2,000	3,000	1,005,000	111,000 4 0
1828	1,000,000	2,000	3,000	1,005,000	111,000 4 0
1829	1,000,000	2,000	3,000	1,005,000	4 47 3 7
1830	1,000,000	2,000	3,000	1,005,000	89,44 0 5
1831	1,000,000	2,000	3,000	1,005,000	56,619 0 9
1832	1,000,000	2,000	3,000	1,005,000	66,069 10 4
1833	1,000,000	2,000	3,000	1,005,000	57,619 3 1
1834	1,000,000	2,000	3,000	1,005,000	41,2 14 7
1835	1,000,000	2,000	3,000	1,005,000	5 10 12 3
1836	1,000,000	2,000	3,000	1,005,000	66 3 3 4
1837	1,000,000	2,000	3,000	1,005,000	50 55 16 6
1838	1,000,000	2,000	3,000	1,005,000	54 24 10 7
1839	1,000,000	2,000	3,000	1,005,000	51 1 1 0
1840	1,000,000	2,000	3,000	1,005,000	64 00 10 9
1841	1,000,000	2,000	3,000	1,005,000	5 10 0 2 3
1842	1,000,000	2,000	3,000	1,005,000	12 20 0 0
1843	1,000,000	2,000	3,000	1,005,000	7 00 0 0
1844	1,000,000	2,000	3,000	1,005,000	50 00 0 0
1845	1,000,000	2,000	3,000	1,005,000	5 57 0 0
1846	1,000,000	2,000	3,000	1,005,000	free
1847	1,000,000	2,000	3,000	1,005,000	free
1848	1,000,000	2,000	3,000	1,005,000	free

\* From 1843 to 1846 inclusive total quantities imported are stated

In 1824 the system of custom duties on raw and thrown silk was changed. The high duties of 5s 6d per lb imposed upon raw silk, and of 14s 8d per lb upon thrown silk, were reduced, the former to 3d and the latter to 7s 6d per lb. These rates were afterwards further reduced, that on raw silk to 1d, and that on thrown silk to 3s 6d per lb. A regulation of the custom-house permitting the latter duty to be drawn back upon the exportation of the goods into which foreign thrown silk is converted, and in 1845 the duties on importation were wholly repealed. In 1824 the system of prohibition against foreign manufactured silk goods was prospectively repealed, and a scale of duties adopted, under which such goods might be imported, but in order to afford the silk manufacturers the opportunity of disposing of goods already made, and of otherwise preparing for foreign competition, such importations were not allowed to take place until after the 5th of July, 1826.

An immediate and great increase was made in the consumption of silk goods. The number of throwing-mills in different parts of the country was increased from 175 to 266, and the number of spindles from 780,000 to 1,180,000, yet the throwsters could not supply the demands of the weavers.

This prosperity was checked by the panic of 1825—6. In the ten years preceding 1824, the quantity of raw and thrown silk used by our manufacturers amounted to 18,823,117 lbs, or, an average of 1,882,311 lbs, per annum, in the ten years following the change of system, the quantity used was 36,780,009 lbs, or 3,678,001 lbs per annum: an increase of ninety-five per cent, and in the eleven years ending 1844, the consumption was 43,588,386 lbs, or 3,962,580 lbs per annum, being an increase of 110 per cent upon the quantity used under the pernicious system of fallacy.

By competition improved machinery has been introduced in the throwing-mills. By the improvement made in the machinery of Jacquard, weavers produce fancy goods, the quality of which is equal, in most respects, to the fabrics of France.

The English throwsters, before 1824, charged for converting raw silk into organzine about 10s per lb. The duty then imposed upon foreign organzine was 14s 8d, or 9s 2d above the duty upon raw silk. In the ten years ending 1824, the weight of thrown silk imported was about 23¼ per cent to the weight of raw silk, the quantity imported during the ten years ending 1844, was in the proportion of 8 per cent to the weight of silk thrown in the mills of the kingdom.

As English throwsters have, for more than twenty three years, been met by competition with foreigners they have reduced the charge from 10s to from 3s to 5s per lb, the rate depending upon the quality of the silk. Nor are throwsters in this country in a less favourable state than they were before. Greater ingenuity, skill, and improved machinery, have enabled them to compete far more successfully than they could under the fallacy called "protection," by which they were deluded.

When the prohibition to the importation of foreign silk goods was removed, a duty was imposed of thirty per cent *ad valorem*, which was soon after altered to specific rates per pound, calculated upon different kinds of goods with the view to be equal, in most cases, to thirty per cent upon the value the vague *maximum* of protection that is to say, the highest scale to prevent encouragement to smugglers Never was there a greater delusion The frauds even within the precincts of the custom-house prove that 15 or even 12 per cent amounts to far more than an irresistible premium to risk all the hazards of the contraband trade and the collusion of the revenue collectors Sir Robert Peel not only abolished the duties on thrown silks, but he wisely reduced the duty on silk manufactures to a revenue rate of 15 per cent The specific rates are, however, found by experience to be unequal, and a duty of ten per cent would probably yield a greater revenue

The former rates of duty being beyond the cost of smuggling, a very large proportion of the silk goods shipped from France for England have uniformly found their way into use without passing through the custom house In the seventeen years, from 1827 to 1843 fifty parts in one hundred of the silk goods shipped from France to England have been smuggled

YEARS	Exported from France to England	Entered at Custom Houses in England	Quantity shipped more than entered	Centesimal Proportions	
				Entered	Not entered
				per cent	per cent.
1827	11	11a	159 846	47 26	52 74
1828	13 031	15 116	148 845	47 62	52 38
1829	211 844	11 218	95 73	34 72	65 28
1830	281 091	119 826	161 08	41 1	58 9
1831	407 712	145 187	254 52	45 17	54 82
1832	412 777	14 668	1 6 519	40 87	59 13
1833	3 1 087	144 196	202 889	42 21	57 79
1834	317 7	17 6	141 40	35 23	64 77
1835	2 9 282	174 2	130 008	57 45	42 55
1836	284 746	1 077	103 661	63 40	36 60
1837	26 164	16 3	101 841	62 17	37 83
1838	313 6	11 126	148 452	62 28	37 72
1839	605 36	25 45	241 961	59 52	40 48
1840	6 3 117	267 1 7	85 840	49 7	50 3
1841	6 1 099	254 1 0	3 0 142	40 70	6 30
1842	5 6 278	40 796	52 72	49 3	50 27
1843	484 428	276 206	206 152	5 09	42 8
1844					
1845					
TOTAL	6 32 152	3 1 9 112	2 153 020	60 0	40 0

The duty received on 3,173,876 lbs of silk manufactures during the above seventeen years amounted to 3,136,091*l*, which is at the rate of 19*s* 9*d* per lb During the same period the regular importations from France amounted to 3,179,112 lbs weight, which is about equal to the whole quantity on which duty was paid The sum received, if collected upon the whole quantity shipped from France, would have been no more than 10*s* per lb — *Porter's Progress of the Nation*

**SILK MILLS**—The number of silk mills in the townships of Manchester and Salford, which in 1820 was five, had increased in 1832 to sixteen

The following table, on the authority of the inspectors of factories, shows the number and distribution of silk factories, and the number of persons employed in them at the beginning of 1835, and in 1839 —

NUMBER of Silk Factories in operation in the different Parts of the United Kingdom, with the Number and Ages of the Persons employed therein in 1835

COUNTIES	Factories		Between Eight and Twelve Years.		Between Twelve and Thirteen Years		Between Thirteen and Eighteen Years		Above Eighteen Years		Total Number of Persons employed			
	At Work	Empty	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	TOTAL	
	number	number	number	number	number	number	number	number	number	number	number	number	number	
ENGLAND														
Berks	3		10	30	6	16	7	18	18	60	38	187	225	
Bucks	2		17	48	6	10	13	41	2	32	320	257		
Chester	88	24	1124	1428	364	426	1323	1876	1757	2408	4,508	6,138	10,100	
Derby	15		102	142	73	124	188	140	460	1124	860	1,539	2,725	
Devon	4		24	5	4	27	9	226	10	221	47	449	396	
Dorset	5		4	70	2	30	1	70	14	101	31	261	289	
Essex	8		40	13	27	107	60	632	00	101	31	1,269	1,327	
Gloucester	2		4	32	5	4	1	28	3	13	7	77	64	
Hants	2		9	44	5	21	6	68	29	116	40	249	298	
Herts	7		193	237	57	77	120	222	12	64	424	644	1,118	
Kent	1			6		1		12				42	42	
Lancaster	23		241	784	202	265	405	1256	621	1054	1,519	3,459	5,028	
Norfolk	4		2	70	2	283	19	440	99	209	1,164	1,164	1,280	
Northampton	1				10 re	turn								
Northham	3		55	28	18	9	37	47	20	122	130	296	326	
Oxford	1		2	2	2	2	2	2	2	21	10	32	42	
Somerset	23		231	302	85	123	98	312	53	251	434	1,416	1,820	
Stafford	11	1	146	208	40	78	109	312	204	804	638	1,462	1,462	
Suffolk	1			6		13		60		1	40	1	109	110
Surrey	2		0	13	2	2	9	43	17	34	35	67	121	
Warwick	5		0	0	2	2	23	28	27	23	68	67	131	
Wilt	4		8	71	2	25	15	148	0	179	34	423	427	
Worcester	8		23	66	2	31	4	52	18	72	27	221	298	
York W Riding	8		23	36	60	63	145	190	418	127	652	465	1,118	
TOTAL, England Wales	231	25	2458	3271	838	1074	2596	6546	4093	7385	10,001	19,946	29,947	
Scotland	0		28	52	14	27	40	224	108	168	285	501	686	
Ireland	1		2					25	2	20	2	47	49	
TOTAL United Kingdom	232	25	2460	3323	852	1101	2636	6819	4214	6013	10,188	20,494	30,682	



STATEMENT of the Number and Power of Silk Factories in operation in different Parts of the United Kingdom, with the Number and Ages of Persons employed therein, in the Year 1839

MILLS Mills at work Mills empty	ENGLAND		WALES		SCOTLAND		IRELAND		UNITED KINGDOM	
	number 263	Horse power 73	number	number	number 5	number	number	number	number 208	number 24
POWER	Engines	Horse power	Engines	Horse power	Engines	Horse power	Engines	Horse power	Engines	Horse power
	number 261	number 430	number	number	number 4	number 148	number	number	number 207	number 247
Steam power	109	94							109	222
PERSON EM- PLOYED	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
	number	number	number	number	number	number	number	number	number	number
Under 10 years	1,024	1,157			3	4			1,631	1,461
10 to 11	786	1,154			3	15			79	1,109
11 12	3	1,016			4	18			37	1,536
12 13	1	77			5	37			757	1,354
13 14	1,035	1,635			83	63			1,608	1,408
14 15	87	1,077			15	43			802	1,716
15 16	573	1,779			14	47			887	1,199
16 17	368	1,513			8	50			466	1,523
17 18	441	1,460			11	44			354	1,504
18 19	290	1,469			9	48			290	1,457
19 20	248	1,460			8	43			296	1,173
20 21	250	1,120			3	28			263	1,148
21 and upwards	530	5,761			100	101			3,466	5,892
TOTAL	10,647	22,823			216	647			10,863	23,370
TOTAL males and females	33,400				703				34,233	

The declared value of British manufactured silk goods exported from the United Kingdom in each year since 1820, has been as follows —

YEARS	Value	YEARS	Value	YEARS	Value
1820	£ 717 5	1830	£ 591 610	1840	£ 792 618
1821	3 143 3	1831	578 574	1841	86 894
1822	361 263	1832	52 590	1842	250 169
1823	3 14 6	1833	737 404	1843	667 952
1824	442 8	1834	639 119	1844	727 430
1825	2 736	1835	97 131	1845	766 40
1826	14 01	1836	9174 24	1846	837 230
1827	23 214	1837	5 172 8	1847	579 114
1828	25 870	1838	777 200		
1829	267 931	1839	866 118		

It is, perhaps, not the least surprising of the effects which have followed the total alteration of our system in regard to this manufacture, that this country now regularly exports silk goods to a considerable value to France, these exports amounted, in

YEARS	Value	YEARS	Value
1831 to 43 3/4	£ 1,130 21 7	1840	£ 1,840
1833	5,292 7	1841	1,847
		1842	1,848

and were increased in

YEARS	Value
1842 to 181 2/3	£ 1,843 148 222
1844	1,850 080
1845	1,329 112

forming nearly three fifths of the exports of those goods made to the whole of Europe. The most considerable part of our export of silks is made to our North American Colonies, the West India Islands, and the United States of America

AN ACCOUNT of Silks and Ribbons (separately) imported from July, 1826, to 1830, inclusive

GOODS	SILK MANUFACTURES IMPORTED INTO THE UNITED KINGDOM FOR HOME CONSUMPTION					
	From the 5th of July 1826	1827	1828	1829	1830	
<b>SILKS OF EUROPE.</b>	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	
Silk of sat n	40,928 11½	38,549 64	61,323 2½	64,612 3½	51,417 6½	
— in ribbons	7,642 1¼	20,958 11½	35,516 14			
Gauze	5,202 1½	6,504 5½	4,600 0¼	20,052 3½	30,911 3	
— in ribbons	3,617 15	16,210 14½	21,911 13			
Crape	5,506 12¾	10,361 1	24,561 13	22,766 1¼	28,456 4	
Velvet	5,514 8½	15,103 15½	18,4 0 7			
— in ribbons	62 10	542 2	2,101 10½	32,748 0	14,847 6	
Ribbons embossed or figured with velvet	Not entered under this denomination until the 5th of July 1829					317 2
Fancy silk net or tulle	27 14	223 5	11 4	3 12	42 1½	
Silk mixed with metal	330 8	583 10½	519 7½	435 12½	418 7	
— in ribbons	54 1	220 13	125 1			
<b>Total entered by weight.</b>	49,301 1¼	115,278 5½	164,430 9	121,425 12½	126,370 8¼	
Plain silk lace or net called tulle square yards.	40,076½	122,238½	171,005½	109,725½	114,351½	
Millinery for turbans or caps number	113	276	295	282	328	
— hats or bonnets d	119	428	414	528	535	
— dresses do	44	213	273	336	328	
— at value declared value	£ s d	£ s d	£ s d	£ s d	£ s d	
Manufactures of silk or of silk and any other materials not particularly enumerated	21,469 5 0	54,128 9 10	77,189 0 8	53,258 19 5	44,923 15 10	
<b>SILKS OF INDIA</b>	lbs	lbs	lbs	lbs	lbs	
Bandannas romals and silk handkerchiefs pieces	208,066	55,163	69,728	6,465	7,953	
Stills and crapes in pieces do	38,754	18,100	15,677	16,164	—,979	
Crape shawls scarfs, gowns pieces, and handkerchiefs No.	77,778	24,200	4,769	1,930	17,690	

QUANTITIES of Silk (Manufactures of Europe) Imported into, and Re-exported from, the United Kingdom

COUNTRIES	1821	1822	1823	1824	1825	1826	1827	1828	1829	1830
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
Germany	183	826	1 11	822	75	1,208	870	1,160	1,251	2,009
Holland	8,747	6,342	5,304	6,194	4,788	9,684	18,323	10,498	17,765	17,728
Belgium										
France	149,187	146,661	148,106	175,462	108,772	179,077	100,723	244,615	265,421	267,477
Other countries	769	601	2,304	1,019	1,561	565	749	553	4,384	970
<b>TOTAL imported</b>	189,821	154,434	157,220	183,823	175,454	191,681	182,258	296,533	276,521	291,041
<b>TOTAL re-exported*</b>	9,908	8,802	16,139	16,115	17,679	9,573	9,402	17 2 3	21,874	46,833
<b>TOTAL Quantities retained for home consumption in the United Kingdom</b>	189,879	144,536	142,297	166,201	160,840	180,079	172,850	294,007	254,647	244,208

\* Chiefly to North and South America and the West Indies

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QUANTITIES of Indian Silk Goods (Bandannas, &c) Imported into, and Re-exported from, the United Kingdom.

C O U N T R I E S	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
	pieces 183 137	pi ces 14 106	pieces 255 100	pie ces 3 426	pie ces 38 413	pie ces 3 1 065	pieces 651 308	pieces 51 002	pieces 563 182	pieces 555 175
<b>TOTAL imported</b>										
<b>RE EXPORTED TO</b>										
Russia	2 4	3 5	303	264	692	1 243	1 159	1 128	2 888	1 603
Canada	10 357	14 752	16 411	21 717	21 31	36 28	31 3 5	22 2 4	30 39	34 299
Ireland			16 411	4 692	4 1 1	4 5 0	7 2 9	8 12 8	7 884	6 685
Holland	12 871	10 4 1	12 112	1 4	23 65	14 5 11	15 110	7 2 6 1	1 618	13 102
France	3 25	24 37	5 30	64 655	96 0 40	51 148	14 4 4	17 2 8	145 191	183 317
Portugal	4 23	2 26	3 669	3 360	8 569	11 8	5 2	7 5 8	6 4	1 122
Spain & the Balearic I lands	17 3	6 207	0 103	8 4	11 564	8 183	8 5 11	6 449	11 7 2	16 044
Cibraltar	4 15	3 646	4 8 5	4 168	13 18	11 4 7	19 318	80 3 27	38 22	50 658
Ireland and the Ionian Islands	8 64	10 3 8	11 13	13 1 5	12 1 18	5 250	6 8 5	12 617	10 86	7 17
Malta	1 2 2	1 20	4 602	1 537	2 4	2 360	400	533	9	1 2 2
Turkey	1 2	1 13	1 603	1 85	17 2	84	6 5 1	1 3 27	1 384	2 07
W. & E. Coast of Africa	1 600	1 61	2 644	1 450	2 025	2 863	2 154	2 1 6	4 819	4 310
East India Company's Territories in Ceylon	1	46	70	37	37	25	1 1	330	1 1	19 025
British Settlements in Australia	710	8 3	650	714	64	50	578	1 222	3 632	4 610
British North American Colonies	6 092	10 377	12 066	4 335	5 071	8 919	7 502	6 550	11 945	18 275
British West Indies	3 337	4 119	4 871	8 658	10 18	11 7 8	13 867	11 612	15 570	21 103
Hawaii			60	275	155					
Cuba and other Foreign West India	2 737	3 638	2 839	7 907	6 311	6 305	11 823	10 902	24 612	27 598
United States of America	12 1 55	2 423	10 621	2 092	25 583	9 010	22 070	27 145	1 4 0	9 62
Mexico	1 0 49	200	1 508	1 319	3 428	407	2 202	360	6 28	12 427
Colombia	50		30	195	270	310		1 310	3 140	4 140
Brazil	1 8 1	2 654	4 867	3 997	6 290	11 004	4 576	11 194	3 0	10 448
States to the Rio de la Plata	416	1 157	50	1 646	4 469	4 237	6 055	7 5 5	13 025	13 1 3
Chili		1 2 6	17 5	1 340	1 048	640	1 0 88	3 202	11 723	11 100
Peru	859	564	285	100	415	789	1 51	1 661	4 05	3 1 3
I. of Guernsey Jersey Alderney & Man (foreign goods)	2 150	1 287	2 387	2 237	5 824	1 031	3 258	1 279	1 525	1 41
Other places	607	400	618	1 093	3 924	4 285	3 060	2 53	2 101	858
<b>TOTAL re-exported</b>	100 337	10 164	175 214	170 238	280 910	220 785	324 515	411 538	41 644	694 707
<b>TOTAL quantities retained for home consumption in the United Kingdom</b>	101 023	8 3 0	314 604	103 670	162 827	120 014	134 249	85 441	112 260	160 838

QUANTITIES of Indian Crape Imported into, and Re exported from, the United Kingdom, from 1831 to 1840

IMPORTED AND RE EXPORTED	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
TOTAL imported	pi ces 1367	pi ces 1 20	pi ces 170	pi ces 76	pi ces 37	pi ces 142	pi ces 143	pi ces 115	pi ces 184	pi ces 570
TOTAL re-exported	818	1 294	356	93	229	203	312	58	48	281
TOTAL quantities retained for home consumption in the United Kingdom										
		8 7	46	25	110	194	27	31	110	12

Chiefly to North and South America West Indies and France

NUMBER of Indian Crape Shawls, &c Imported into, and Re exported from, the United Kingdom, from 1831 to 1840

IMPORTED AND RE EXPORTED	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
TOTAL imported	numb 7 24	numb 2 17	numb 18 55	numb 4 2	numb 445	numb 8119	numb 17 14	numb 10 71	numb 7 933	numb 3069
TOTAL re-exported	2 910	15 164	17 164	4503	7 16	4 87	10 225	11 7	10 102	6001
TOTAL quantities retained for home consumption in the United Kingdom	4	1 18	4 412	80 8	2740	3648	54	911	3 5	463

Chiefly to North and South America West Indies and France

QUANTITIES of Indian and China Taffeties, &c, Imported into, and Re exported from, the United Kingdom, from 1831 to 1840

IMPORTED AND RE-EXPORTED	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
Total imported	pieces 10 631	pieces 6046	pieces 3823	pieces 1501	pieces 2745	pieces 3801	pieces 18,211	pieces 12,659	pieces 17,761	pieces 20,799
Total re-exported*	6,383	5039	6412	4381	4831	4234	7,588	14,739	16,287	18,104
Total quantities retained for home consumption in the United Kingdom	£									
	5516	2830	4553	2982	1813	1120	1397	3788	1912	1290

\* Chiefly to United States, North American Colonies and to France

QUANTITIES of Manufactured Silks Imported and Entered for Consumption in the United Kingdom

DESCRIPTION	QUANTITIES IMPORTED				
	1841	1842	1843	1844	1845
<b>MANUFACTURES OF EUROPE</b>	quantity	quantity	quantity	quantity	quantity
Silk manufactured goods viz. —					
Silk of satin and silk or satin ribbons.	lbs	236 814	234 272	251 411	276 450
Crapes and gauze ribbons.	do.	7 118	6 903	12,324	18 209
— tissue foulards	do.	863	397	682	30
Crapes	do.	3,681	2,920	2,209	2,216
Velvet and real et ribbons	do.	20 358	18,621	18 586	15,174
Ribbons embossed or figured with velvet	do.	451	904	194	635
Fancy silk net, or tulle	do.	3,348	3 113	3,032	4, 19
Silk mixed with metal	do.	316	130	243	303
<b>TOTAL entered by weight</b>	lbs	276,539	268,001	292,291	316,653
Plain silk lace, or net called tulle	square yards	1,460	911	1 165	2,226
<b>MILLINERY viz. —</b>	number				
Turbans or caps	do.	754	1 345	665	1 061
Hats or bonnets	do.	1 574	1 756	1 123	1 871
Dresses	do.	230	3 9	385	498
Entered at value	£	32	9	39	85
Manufactures of silk or of silk and other materials not particularly enumerated	do.	168 963	110,989	127,902	180 284
<b>MANUFACTURES OF INDIA viz. —</b>					
Bandannas romals and silk handkerchiefs	pieces	378 236	348 778	440 344	569,801
Silks and crapes in pieces	do.	34 528	21 808	23 242	30 102
Craps shawls scarfs and handkerchiefs.	number	11 482	2 935	5, 551	12,268

QUANTITIES of Manufactured Silks Imported and Entered for Consumption in the United Kingdom—(continued)

DESCRIPTION	QUANTITIES ENTERED FOR CONSUMPTION				
	1841	1842	1843	1844	1845
<b>MANUFACTURES OF EUROPE</b>	quantity	quantity	quantity	quantity	quantity
Silk manufactured goods viz. —					
Silk of satin and silk, or satin ribbons	lbs	218,063	207 414	224,813	253, 8
Crapes and gauze ribbons	do.	9 100	9 315	9 021	17 269
— tissue foulards	do.	663	261	648	30
Craps	do.	3 261	2,305	2 664	3 237
Velvet and velvet ribbons	do.	17 051	16, 004	1 899	15 717
Ribbons embossed or figured with velvet	do.	435	904	74	617
Fancy silk net, or tulle	do.	3 234	3 073	3 600	4 111
Silk mixed with metal	do.	103	128	179	301
<b>TOTAL entered by weight</b>	lbs	218 902	237 407	267 370	295 123
Plain silk lace or net called tulle	square yards	881	550	1 130	1 552
<b>MILLINERY viz. —</b>	number				
Turbans or caps	do.	511	277	363	573
Hats or bonnets	do.	636	546	61	919
Dresses	do.	143	182	134	313
Entered at value	£	32	9	39	85
Manufactures of silk or of silk and other materials not particularly enumerated	do.	153 057	109 611	113 400	175 102
<b>MANUFACTURES OF INDIA viz. —</b>					
Bandannas romals and silk handkerchiefs	pieces	60,824	40 251	9 710	128 218
Silks and crapes in pieces	do.	1 249	1 158	2, 353	1 218
Craps shawls scarfs and handkerchiefs.	number	118	108	122	288

Under the tariff of 1842 the manufactured silks entered have been in 1846 and 1847 as follows

## SILK MANUFACTURES—Entered under the Tariff of 1842

DESCRIPTION	IMPORTED		HOME CONSUMPTION	
	1846	1847	1846	1847
Silk Manufactures of Europe viz —				
— silk or satin plain	pieces.	pieces	pieces	pieces
— figured or brocaded	26,385		8,994	
Gauze plain	14,492		3,657	
— striped figured or brocaded	2,188		1,212	
Crape plain	1,57	Not classed as before	712	
— figured	184		69	
Velvet plain	3		3	
— figured	2,748		1,035	
Silk manufactures of India viz —				
Bandannas & other silk handkerchiefs	449		354	
Ditto ditto	641,864	577,743	187,163	169,312
	348,042	358	free	free

The imports of silk goods have increased very largely since the reduction of the duty in 1846. The above tables contain the particulars of the quantities entered under the tariff of 1842, in the year 1845, and for that portion of 1846 during which it continued in force. The following table shows the quantity imported under the tariff of 1846, during the remainder of that year —

## SILK MANUFACTURES—Entered under the Tariff of 1846

DESCRIPTION	IMPORTED	HOME CONSUMPTION
Silk or satin broad stuffs	pieces	pieces
— ribbons	121,874	113,28
Cauze or crape broad stuffs	180,837	195,60
— ribbons	6,385	3,630
Gauze mixed with silk satin or any other materials in less proportion than one half of the fabric viz broad stuffs	32,069	34,770
— ribbons	28	16
— velvet viz —	1,906	2,153
Broad stuffs	27,754	25,616
Ribbons of velvet or silk embossed with velvet	14,411	14,732

The two tables together give the following comparison —

## SILK MANUFACTURES

PERIODS	IMPORTED		
	1844	1845	1846
Imported under the tariff of 1842	lbs	lbs	lbs
Imported under the tariff of 1846	310,897	323,06	48,145
TOTAL	310,897	323,760	440,29

Showing an increase in 1846 of upwards of *thirty* per cent, although the lower tariff was in operation only about eight months of the whole year. The following show the imports, &c., of manufactured silks for the year 1846 and 1847 —

## SILK MANUFACTURES—Entered under the Tariff of 1846

DESCRIPTION	IMPORTED		HOME CONSUMPTION	
	1846	1847	1846	1847
Silk or satin broad stuffs		pieces	pieces	pi ces
— ribbons	122 683	158 888	119 24	131 141
Gauze or crape broad stuffs	186,622	191 347	155,00	181 29 9
— ribbons	6 284	5 306		5 000
Gauze mixed with silk satin or any other materials in less proportion than one half of the fabric viz broad stuffs	31,569	42 791	34,770	41 369
— ribbons	22	71	16	9
Velvet viz. —	1,041	3 056	5 152	3 0 2
Broad stuffs	27 799	29 450	2,616	25, 4
Ribbons of velvet or silk, embossed with velvet	14 409	15 845	14,733	15,844

## DECLARED Value of British Silk Manufactures Exported from the United Kingdom

COUNTRIES	1831	1835	1840	1845	1846
Russia	497	1 238	1 111	2,095	
Sweden	191	814	9	288	
Norway	230	608	80	426	
Denmark	143	268	95	85	
Germany	19,009	30,655	16 270	36,687	
Holland	5 621	66,980	9 487	31 553	
Bulgaria		17 973	14,773	44 176	
France	43 162	45 913	49,907	130 712	
Portugal Proper and Islands	4 750	19,596	1 469	1 419	
Spain and the Balearic Islands, &c	24 613	4,885	6,944	7 608	
Gibraltar	3 989	5 638	7,341	7 533	
Italy and the Italian Islands	9 627	1 458	6 069	7 368	
Malta &c	777	1 92	2 113	1 670	
Turkey	2,725	3 221	791	2,014	
Egypt, &c	125	15		1,095	
Western Coast of Africa	656	437	1 226	5 155	
Cape of Good Hope	6,907	8 931	10 636	6,001	
Mauritius.	1 313	2,473	6,144	1 491	
East India Company's Territories and Ceylon	6,271	6,029	16,337	13 116	
Sunda Java and other Islands in the Indian Seas	500	330	360	1 595	
British Settlements in Australia	17 075	27 953	67 590	2,187	
British North American Colonies	93,012	85 179	125,869	115,897	
— West Indies	27,508	31,242	26,230	24 049	
Hays	4 416	879	140	208	
Cuba and other Foreign West India	11 924	8,561	13 809	0 534	
United States of America	24 983	507 040	274 159	218 26	
Mexico	13 548	3 138	1 442	6 018	
New Granada &c	4 469	2 225	3 805	9 416	
Braz I	318	20 137	25 516	14 022	
States of the Rio de la Plata	13 219	16,307	31 021	9 510	
Chili	3 012	3 887	30 687	9 963	
Para	9 333	8 58	23,548	14 104	
Isles of Guernsey Jersey Alderney and Man (foreign goods)	11 146	11 419	9 023	3 583	
Other places	28	305	471		
TOTAL	578,874	1,73 786	792,648	766,403	

FOREIGN and Colonial Silk Manufactured Goods Imported, retained for Home Consumption, and Exported from the United Kingdom

SPECIES OF SILKS, Stated agreeably to their Designations in the Schedule of the Rates of Duty which regulates the Entry at the Custom House	IMPORTED into the United Kingdom		RETAINED for Home Consumption in the United Kingdom		EXPORTED from the United Kingdom	
	1845	1846	1845	1846	1845	1846
<b>SILK MANUFACTURES OF EUROPE —</b>						
(Entered previous to 19th of March 1846)						
Silk or satin plain	187 145 1	26,335 7	154 648 12	8,862 1	11,282 12	4 202 10
— mixed with metal	263 12	6 6	260 11	8 3	0 3	
Silk figured or brocaded	87 918 14	14 491 12	63,635 0	5 635 15	4 377 2	1,373 15
— mixed with metal	226 0	34 9	110 9	23 0	30 0	8 1
Gauze plain	21 523 13	2,187 13	28,233 7	1 214 1	519 7	5 14
— mixed with metal	121 6	4 8	132 1	4 8	0 0	
— striped figured or brocaded	15 934 6	1,037 3	15,546 11	711 8	114 10	4 9
— mixed with metal	71 4	1 15	79 1	1 15	0 3	
Crape plain	8 9	8 9	8 9	8 9	8 9	
— mixed with metal	4,331 12	183 14	3,786 0	69 10	379 15	41 12
Crape mixed	2 3	2 3	2 3	2 3	2 3	
— mixed with metal	43 8	8 1	50 0	2 8	0 11	
Velvet plain	7 11	0 2	7 11	0	0	
— mixed with metal	23 125 4	2,747 10	19 010 3	1,034 12	3,790 10	618 9
— mixed with metal	26 14	1 2	20 10	1 2	0 4	
— mixed with metal	5,615 3	449 4	3,017 3	353 10	124 14	318 13
— mixed with metal	2 8	2 8	2 8	2 8	2 8	
Ribbons, embossed or figured with velvet	1,029 6	23 12	1,323 15	21 0	4 2	
— ditto mixed with metal	0 9	0 9	0 9	0 9	0 9	
(Entered from the 19th of March 1846)						
Silk or satin plain striped figured or brocaded		122 082 13		119 654 5		11 067 10
Gauze mixed with silk satin or any other materials in less proportion than one half part of the fabric		6 83 14		5,569 5		1 46 1
Velvet plain or figured		92 6		16 9		9 5
Ribbons		27 799 0		25,303 9		2,701 3
Plain silk of one colour only		1,293 4		1 338 5		780
Plain satin ditto		85,802 11		87 772 3		30 14
Silk or satin striped figured or brocaded or plain ribbons of more than one colour		99 096 0		105 57 8		1 041 10
Gauze or crape plain striped figured or brocaded		31 958 13		36 470 15		73 8
Gauze mixed with silk, satin or other material in less proportion than one-half part of the fabric		1,201 0		2,193 8		
Velvet, or silk embossed with velvet		14 401 9		14 706 12		1 03 12
Articles entered previously to the 19th of March 1846 as silk Manufactures						
Of silk or satin plain striped, figured or brocaded		11 690 7		11 191 11		489 12
Of gauze mixed with silk satin or any other material in less proportion than one half part of the fabric		3 450 13		3 459 4		1 9
Of velvet plain or figured		336 9		336 9		7 1
Plain satin only used for making hats		1 109 15		1 109 14		
Articles entered previously to the 19th of March 1846 as silk Manufactures unenumerated		117 466 4		117 639 11		261 11
Artificially mixed with wool		29 9 13 9		29 264 13 9		338 0
Fancy knit or tricot		5,123 11		5,027 13		115 13
Plain silk lace or net called tulle		255		22		98
— ditto		55 8		55 8		22
<b>SILK MANUFACTURES OF INDIA</b>						
Bonnans and other handkerchiefs of British possessions	736,022	609,296	173,144	180,711	414,932	471,617
— not of British possessions	18,148	32,068	2,850	5,407		
Crape shawls, scarfs, and handkerchiefs	7,574	17,843	1,686	962	15,075	13,108
Silks and crapes in pieces, of British possessions	10,717	4,996	1,332	214	20,069	19,369
— not of British possessions	10,231	12,133	—,853	2,706		
<b>MILLINERY</b>						
Turbans or caps	number	1 037	1 546	09	1 467	528
Hats or bonnets	do	1 1	2,893	1,032	1 869	815
Dr	do	363	430	2 9	311	84
At value	value £	222 10 0	8 0 0	222 10 0	8 0 0	109
<b>Silk Manufactures not particularly enumerated and Articles of the same, which partly made up</b>						
Of British possessions	value £	2,817 9 0	1 7 3 6	2,916 9 0	1 240 3 6	1 523 0
Not of British possessions	value £	230 229 4	4 196,403 13 3	217 734 4	4 114,353 13 3	18 171 0

**BRITISH Manufactured Silk Goods Exported from the United Kingdom in the Years  
1845 and 1846**

COUNTRIES TO WHICH EXPORTED	MANUFACTURES OF SILK ONLY					
	Stuffs or Ribbons,	Lace	Stockings.	Prings Laces Sewing Silk and Small Wares (Entered at Value)	Twist and Yarn	Aggregate Manufactures of Silk only (Declared Value)
	<i>lbs</i>	<i>yards.</i>	<i>dos. pairs</i>	<i>£</i>	<i>lbs</i>	<i>£</i>
Russia Northern Ports	304	172,708		170	569	1,718
— Ports within the Black Sea	58					115
Sweden	65	1,550		86		137
Norway	174	2,470		88	2	240
Denmark	94			1		98
Prussia	7					19
Hanover				50		57
Hannover Towns	8,428	180,495	4	1,791	53,608	43,483
Holland	6,253	53,395	6	3,491	56,442	50,511
Belgium	7,771	16,347		1,794	43,224	43,746
Channel Islands	2,494			172		376
France	40,910	167,788	18	873	306,232	164,266
Portugal Proper	137					169
— Azores	444					446
— Madeira	367					530
Spain Continental Spain and the Balearic Islands.	2,277		299	80		430
— Canary Islands.	57	684		50		129
Gibraltar	1,168			32		1,265
Italy Sardinian Territories	709			50		1,040
— Duchy of Tuscany	723		2	100		1,048
— Papal Territories.	59					117
— Naples and Sicily	855			4		935
— Austrian Territories	1,971					2,474
Malta	583	1,548		30		3,543
Ionian Islands	267			26		303
Kingdom of Greece	5					4
Turkey	691		34	24		972
Syria and Palestine	40					12
Egypt	1,059		45	100		1,417
Western Coast of Africa	2,319			1		2,167
Cape of Good Hope	3,263					4,452
Cape Verd Islands	10					0
St. Helena	26					39
Mauritius	1,632			300		2,115
British Territories in the East Indies	11,064	220	63	789		13,112
Java	577					217
Philippine Islands.	452					543
Cebu	106		75	50		272
British Settlements in Australia	22,110	35,144	84	739	15	28,171
British North America	27,408	102,426	110	10,120	60	145,157
British West Indies	9,460	2,474	68	1,247		13,307
Cuba and other Foreign West Indian Colonies	4,078		2,646	1,063		10,334
United States of America	41,099	131,370	9,074	56,302	8,154	122,554
Mexico	1,783		530	345		3,315
Central America	37					44
New Granada, Venezuela and Ecuador	1,224		38			1,711
Brazil	6,118		1,168	686		5,564
States of the Rio de la Plata	140			370		398
Chili	5,491		974	656	160	9,670
Peru and Bolivia	2,496		2,835	755		11,054
Russian Settlements on the North West Coast of Ame- rica					3	3
<b>TOTAL { 1845</b>	<b>246,135</b>	<b>800,073</b>	<b>18,070</b>	<b>82,563</b>	<b>468,825</b>	<b>627,594</b>
<b>{ 1846</b>	<b>232,610</b>	<b>432,068</b>	<b>13,938</b>	<b>77,506</b>	<b>244,201</b>	<b>622,334</b>



## BRITISH Manufactured Silk Goods Exported from the United Kingdom in the Years 1845 and 1846—(continued)

COUNTRIES TO WHICH EXPORTED	MANUFACTURERS OF SILK MIXED WITH OTHER MATERIALS				Total Declared Value of Silk Goods	
	Stuffs or Ribbons	Stockings	Prings Laces and Small Wares.	Aggregate of Manufactures of Silk mixed with other Materials	1846	1845
			(Noted at Value)	(Declared Value.)		
	lbs	dozen pairs	£	£	£	£
Russia Northern Ports	96			77	1,223	2,599
— Ports within the Black Sea	306			231	376	496
Sweden					127	298
Norway	28			21	261	430
Denmark					98	85
Prussia					10	40
Hanover					56	
Hanseatic Towns	5,068		5	3, 20	47 22*	36 647
Holland	1 071	380		1 115	31 / 4	31 58
Belgium	1,822		255	10 522	56 258	44 126
Channel Islands	132			30	3 720	2 563
France	9, 44		119	8 158	172 484	189 772
Portugal Proper	1 132			404	373	1 344
— Azores	28			26	472	
— Madeira	38			31	261	65
Spain Continental Spain and the						
Balearie Islands	3 082			2,364	6,779	6,647
— Canary Islands	53			76	208	371
Gibraltar	428			163	1 423	2 333
Italy Sardinian Territories	499			423	1 463	1 52
— Duchy of T. any	2,730			2 036	3,084	2 881
— P. al Territ. oss	84			20	137	765
— Naples and Sicily	3 065			2,317	7 282	121
— A. rian Territories	836			632	2 106	3 0 1
Malta	348			194	1 737	645
Ionian Islands	22			30	434	531
Ionian of Greece	98			79	83	94
Turkey	2,064			1,325	2 297	2 458
Syria and Palestine					32	136
Egypt	422			280	1 700	487
Western Coast of Africa	206			145	2 312	5 84
Cape of Good Hope	805			663	5 153	0 813
Cape Verde Islands					20	20
St. Helena					30	69
Martinique	414			101	2,209	1 409
British Territories in the East						
Bulies	538			424	12 356	13 419
Java					517	1 131
Philippine Islands	99			75	614	520
Cina	84			26	246	284
British Settlements in Australia	2 788	96	287	2 445	81 616	23, 367
British North America	5 24		338	4 469	120 186	116 997
British West Indies	1 076	105		669	13, 676	34, 5 1
Cuba and other Foreign West						
Indian Colonies	808			649	10 083	9 535
United States of America	112 749			92, 510	226, 064	218 377
Mexico	87			70	2, 648	6 018
Central America					44	
New Granada Venezuela and						
Ecuador	344			105	7 806	9 416
Brazil	300			1 649	11 415	14 072
States of the Rio de la Plata	1 078			856	1 254	9, 510
Chili	2 246			1 644	10 714	9 993
Peru and Bolivia					11 094	14 022
Russian Settlements on the						
North West Coast of Ame					3	
ria						
TOTAL (1846)	183 38	587	998	144 563	637 077	760 405
(1845)	186 623	1618	707	144 971		

PRICES of Silk, per Pound, on the 1st of January during the following Years, in the London Market.

YEARS.	CHINA			BENGAL			PERSIAN			BRUTIA			ITALIAN RAW THROWN BERGAM							
													Cocoons			Demi-cs.				
	s	d	q	s	d	q	s	d	q	s	d	q	s	d	q	s	d	q	s	d
1820	Test	11 0	to 15 0	Common	10 0	to 15 0	}	0 0	to	0 6	Short	11 0	to 12 0	3-4ths	17 0	to 19 0	22 24	to 24 26		
	Tay	12 3	to 12 12	Superior	14 0	to 15 0					Long	10 0	to 11 0	4-5ths	10 18	to 14 24	26 23	5 3		
1821	Test	16 0	to 17 0	Common	12 6	to 14 6	}	11 0	to	11 6	Short	13 6	to 15 6	3-4ths	19 15	to 22 24	24 25			
	Tay	13 0	to 13 6	Superior	16 0	to 18 0					Long	11 6	to 13 6	4-5ths	17 13	to 24 26	24 2			
1822	Test	14 0	to 15 0	Common	10 0	to 15 0	}	8 6	to	9 3	Short	11 6	to 12 6	3-4ths	17 18	to 22 24	22 23			
	Tay	12 0	to 13 0	Superior	14 0	to 15 0					Long	11 0	to 11 6	4-5ths	16 17	to 24 26	22 23			
1823	Test	23 0	to 24 6	Common	10 0	to 14 0	}	8 0	to	9 3	Short	11 0	to 12 6	3-4ths	18 18	to 22 24	23 24			
	Tay	13 3	to 12 6	Superior	15 0	to 16 0					Long	10 0	to 10 6	4-5ths	16 18	to 24 26	27 28			
1824	Test	19 0	to 20 0	Common	14 6	to 16 0	}	13 0	to	13 6	Short	16 6	to 18 6	3-4ths	23 24	to 24 26	30 32			
	Tay	17 0	to 17 6	Superior	18 0	to 20 0					Long	14 0	to 14 6	4-5ths	22 24	to 24 26	30 32			
1825	Test	10 0	to 21 0	Common	12 0	to 15 0	}	12 0	to	13 0	Short	16 0	to 17 0	3-4ths	23 25	to 22 24	30 32			
	Tay	16 6	to 16 9	Superior	18 0	to 20 0					Long	12 6	to 14 0	4-5ths	22 24	to 24 26	29 31			
1826	Test	22 0	to 25 0	Common	14 6	to 18 0	}	12 3	to	13 6	Short	18 0	to 21 0	3-4ths	25 26	to 22 24	33 35			
	Tay	20 0	to 21 0	Superior	20 0	to 23 0					Long	16 0	to 17 0	4-5ths	24 26	to 24 26	32 33			
1827	Test, 1st sort	24 0	to 25 0	Common	13 0	to 15 0	}	12 6	to	13 6	Short	10 0	to 20 0	3-4ths	25 26	to 22 24	33 35			
	Do 2nd do	21 0	to 23 0	Superior	19 0	22 0					Long	15 0	to 16 0	4-5ths	24 27	to 24 26	32 34			
	Do 3rd do	19 0	to 21 0								Tay	16 0	17 0	Short	15 6	to 18 0	3-4ths	25 26	to 22 24	31 33
	Tay	16 0	to 16 0	Long	15 0	to 16 0								4-5ths	24 27	to 24 26	32 34			
1828	Test, 1st sort	21 0	to 22 0	Common	13 6	to 15 6	}	11 6	to	12 6	Short	15 6	to 18 0	3-4ths	25 26	to 22 24	31 33			
	Do 2nd do	19 0	to 21 0	Superior	17 0	20 0					Long	14 6	to 15 6	4-5ths	24 25	to 24 26	30 31			
	Do 3rd do	17 0	to 19 0								Tay	16 0	17 0	Short	16 6	to 21 0	3-4ths	25 27	to 22 24	31 33
	Tay	16 0	to 17 0	Long	15 6	to 16 0								4-5ths	24 26	to 30 32				
1829	Test, 1st sort	24 0	to 25 0	Common	14 0	to 16 0	}	12 0	to	12 6	Short	16 6	to 21 0	3-4ths	25 27	to 22 24	31 33			
	Do 2nd do	21 0	to 23 0	Superior	18 0	22 0					Long	15 6	to 16 0	4-5ths	24 26	to 30 32				
	Do 3rd do	18 0	to 20 0								Tay	20 6	0 0	Short	16 0	to 21 0	3-4ths	25 26	to 22 24	31 32
	Tay	20 6	to 0 0	Long	15 6	to 16 0								4-5ths	24 26	to 30 32				
1830	Test, 1st sort	25 0	to 26 0	Common	13 0	to 15 0	}	12 0	to	13 6	Short	16 0	to 21 0	3-4ths	26 26	to 22 24	31 32			
	Do 2nd do	23 0	to 24 0	Superior	18 0	21 0					Long	15 6	to 16 0	4-5ths	24 26	to 30 32				
	Do 3rd do	21 0	to 22 6								Tay	none	Short	16 0	to 21 0	3-4ths	26 26	to 22 24	31 32	
	Tay	none	to none	Long	15 6	to 16 0							4-5ths	24 26	to 30 32					
1831	Test, 1st sort	23 0	to 23 6	Common	12 0	to 15 0	}	11 0	to	13 0	Short	19 0	to 20 0	3-4ths	21 24	to 22 24	29 30			
	Do 2nd do	21 0	to 22 0	Superior	16 0	19 0					Long	12 6	to 14 0	4-5ths	19 22	to 24 26	27 28			
	Do 3rd do	19 0	to 20 0								Tay	none	Short	14 0	to 19 0	3-4ths	21 23	to 22 24	28 30	
	Tay	none	to none	Long	12 6	to 13 6							4-5ths	19 22	to 24 26	27 28				
1832	Test, 1st sort	21 0	to 21 6	Common	9 6	to 12 0	}	8 0	to	12 6	Short	14 0	to 19 0	3-4ths	21 23	to 22 24	28 30			
	Do 2nd & 3rd do	18 0	to 19 6	Superior	15 0	19 0					Long	12 6	to 13 6	4-5ths	19 21	to 21 26	27 28			
	Tay	none	to none								Canton	10 0	15 0	Short	11 0	to 20 0	3-4ths	21 23	to 22 24	25 2
	Do 2nd & 3rd do	17 0	to 18 6	Long	10 0	to 11 0								4-5ths	19 21	to 24 26	24 25			
1833	Test, 1st sort	23 0	to 21 6	Common	9 0	to 12 0	}	8 0	to	11 0	Short	13 6	to 21 0	3-4ths	23 25	to 22 24	27 29			
	Do 2nd & 3rd do	19 0	to 20 6	Superior	14 0	18 0					Long	12 6	to 13 6	4-5ths	22 24	to 24 26	27 29			
	Tay	none	to none								Canton	9 0	14 0	Short	10 0	to 21 0	3-4ths	23 25	to 22 24	27 29
	Do 2nd & 3rd do	19 0	to 20 0	Long	12 6	to 13 6								4-5ths	22 24	to 24 26	27 29			
1834	Test, 1st sort	23 0	to 23 6	Common	9 6	to 12 0	}	8 0	to	11 0	Short	10 0	to 21 0	3-4ths	23 25	to 22 24	27 29			
	Do 2nd & 3rd do	19 0	to 20 0	Superior	14 0	18 0					Long	12 6	to 13 6	4-5ths	22 24	to 24 26	27 29			
	Tay	none	to none								Canton	10 0	16 0	Short	10 0	to 21 0	3-4ths	23 25	to 22 24	27 29
	Do 2nd & 3rd do	19 0	to 20 0	Long	12 6	to 13 6								4-5ths	22 24	to 24 26	27 29			
1835	Test, 1st sort	21 0	to 22 0	Common	8 6	to 12 0	}	10 0	to	12 0	Short	10 0	to 21 0	3-4ths	23 25	to 22 24	27 29			
	Do 2nd & 3rd do	18 0	to 19 0	Superior	14 0	19 0					Long	14 0	to 15 0	4-5ths	21 23	to 21 26	25 27			
	Tay	none	to none								Canton	10 0	16 0	Short	13 6	to 17 0	3-4ths	23 25	to 24 26	24 2
	Do 2nd & 3rd do	15 0	to 17 0	Long	12 0	to 13 6								4-5ths	21 23	to 21 26	25 27			
1836	Test, 1st sort	18 0	to 16 0	Common	9 0	to 11 0	}	10 0	to	11 0	Short	13 6	to 17 0	3-4ths	23 25	to 24 26	24 2			
	Do 2nd & 3rd do	15 0	to 17 0	Superior	12 0	18 0					Long	12 0	to 13 6	4-5ths	21 23	to 21 26	25 27			
	Tay	14 0	to 15 0								Canton	10 0	14 0	Short	13 6	to 17 0	3-4ths	23 25	to 24 26	24 2
	Do 2nd & 3rd do	13 0	to 14 0	Long	12 0	to 13 6								4-5ths	21 23	to 21 26	25 27			

**SHEEP AND SHEEP'S WOOL**—We have examined all the information which we could procure with regard to the products of India, solely with reference to the supply of the raw materials which we require from abroad, and although the United Kingdom has, from the remotest periods of which we have any account that can be relied upon, yielded wool in great quantities, even for exportation, yet the supplies which are demanded for one of the greatest branches of our manufactures has been annually increasing, and, as cheap labour is abundant in India, it becomes a question well worthy of consideration, how far many of the higher districts are adapted to profitable sheep pasturages

It will be observed in the following tables that the first imports of sheep's wool into England from India appears to have commenced in 1831 Nor do the exports of wool from India (*See Commercial Tables, pages 144 et seq*) appear to have taken place earlier

The imports of sheep's wool into the United Kingdom from India, and from all countries, have increased as follows —

YEARS	From India			YEARS	From all Countries		
	In 1833	From India 3721 lbs	From all C countries		In 1833	From India 3721 lbs	From all Countries
	India lbs	Australia * lbs	Quantity lbs		India lbs	Australia * lbs	Quantity lbs
1832		2,277 058	28,129 973	1840	2 441 370	9 721 243	46,405 393
1833	3 21	3 51 869	28 040 657	1841	3 008,64	12,598 090	56 170 474
1834	67 763	2,558,921	40 462 232	1842	4,216 983	12 359 671	49 981 653
1835	23 845	4 210 101	39 174 332	1843	1 516,129	17 353 714	4 85 061
1836	1 083 393	4 20 645	74 259 977	1844	2 76 853	17 019 347	63 079 524
1837	1,869 41	7 069 543	48 3 9 708	1845	3,574,866	24 177 317	75,551 950
1838	1 8,7,296	7 817 423	52,594 365	1846			
1839	2 103 546	10 126 774	37 3 1 223	1847			

It will appear that in 1845 the amount of sheep's wool imported from India and Australia exceeded the quantity imported from all parts of the world in 1833

India has been considered a country far from being adapted to the rearing of sheep for wool Of late years, however, considerable quantities of wool have been exported from the British presidencies (*see Tables*) The sheep, however, are evidently of inferior breed Dr Tennant says —

The Bengalee sheep is small, lank, and thin the colour of three-fourths of each flock is black or dark gray In Asia the colour of cattle generally is the reverse of that in India, what we term in England a herd of black cattle is here white, a flock of sheep which at home is usually white, here it is dark gray or black "

The quality of the fleece is coarse, harsh, thin, and hairy No part of clothing or domestic furniture, so far as Dr Tennant had observed, is manufactured of wool, except a coarse kind of blanketing, which some of the boatmen and people in the upper districts use during the cold season as a coverlet at night

Dr Tennant describes the Coromandel sheep, between Bengal and Madras, as inferior to those of Bengal in fleece and carcase Their coarse hair and their inconspicuous form approach to the goat or deer Two or three may, in some places, be bought for a rupee, but absolute want only can make an Englishman relish the mutton

There are in Bengal sheep with four horns, two on each side of the head They are a distinct breed, superior in size, and better proportioned than the common kind

Dr Tennant says, there were five families of shepherds near Benares, who

possessed 1500 sheep, they seemed a particular class, who clipped the wool of their sheep and manufacture into blankets

The Cabool sheep are fat, and have a larger excrescence on the rump than that of the Cape sheep—it is nearly half as large as the whole body Mr Johnson says—

“ In the Mysore, one man and a dog attend to a flock of ten rams and 100 ewes

“ The male lambs are partly sacrificed, partly kept for breeding, and others, when three years old, are castrated and sold to the butchers

“ The ewes breed at two years old, without observing any particular season, after bearing four or five lambs, they are sold to the butcher For three months the lamb takes all the milk, for the next month a small quantity is given to the pair—thirty ewes not giving more than a quart, which is taken once a day by the shepherd It is mixed with the milk of the cow or buffalo The sheep are shorn twice a year Fifty fleeces weigh about a maund (24 lbs 6 oz) The wool is coarse, and chiefly serves for making a kind of blanket In Behar the fleece weighs half a pound During the day they are pastured upon the waste grounds, but at night they are usually penned near the shepherd's hut During the ploughing seasons they are hired by the farmers to be folded upon their fields The hire is no more than food for the shepherd

“ Water is given to them twice at noon, and two hours subsequently

“ In Coimbatore there are two varieties of the sheep, distinguished as the *Curumbar* and the *Shaymbhar*

“ The mutton of this district is described by Dr Buchanan as most excellent, and even that fattened upon grass as in good condition, the pasture having a short and nutritious herbage

“ Of the *shaymbhar*, which is a long legged sheep, humped somewhat like the ox, I shall take no further notice, but I would recommend the *cucumbar* sheep very strongly to the notice of those who are endeavouring to improve the agriculture and the commerce of India

“ It is a small compact sheep modelled very much like the Southdown, but on a reduced scale, and with a head shaped like the Merino Its hind-quarters are particularly well formed The animal fattens readily, and its flesh is close-grained and well flavoured The wool is thick and curly, and almost entirely free from hair The fleece is generally white, and the head black

“ In Coimbatore they are shorn twice a year The wool is not very fine, but crossed with some other finer-fleeced kind, or even by better management the staple might unquestionably be improved

“ The Jeypore sheep are large with white fleeces, and generally black faces They are to be bought for less than a rupee each Mr Barberie, of the Hawper Steed Depot, sent some of the wool to Calcutta in 1831, and it was then valued at eightpence or ninepence per lb, being of a very low description compared with that which commands a market in England The short experience of Mr Barberie was sufficient to show that the fleece improved as the animal was better fed \*

“ At present in Bengal, and most other parts of southern India, the wool is of a very inferior quality, deficient in that elastic softness arising from a spiral fibre which characterises the superior kinds but having that coarse, dead feel, which arises from its straight, hairy texture

“ Inferior as it confessedly is, yet the export of wool from India, chiefly from Bombay, has yearly increased

“ In 1833, there were only shipped 69,944 lbs but in 1837 it had increased to 2,444,091 lbs ”

The prices for which Indian wools were sold in London in 1839 were—

Superior white free from gray hair soft and kind (relatively)	d	d	
Fair quality and fair in other respects	10	to	11 per lb
Superior mixed with yellow or gray	8	9	”
Gray and low	6	7	”
	4½	5	”

\* Trans Agri Hort Soc of India

" From the prices paid, with the cost and charges, it is said not to leave a profit, and from the remarks made it is evident it must be improved in quality before it can assume a firmer place in the home market \*

" The remarkable improvement in the Australian wools is not to be fairly tested by comparing them with those of Germany. In the latter country, wool is grown as an exotic, in door production, the sheep being carefully housed during a great part of the year, and the rapid decline in the fineness, and every other property in which the excellence of German wool consists, is so great when the least neglect or undue exposure to the weather has been suffered to take place, that by one year's bad management the produce of a flock is often deteriorated to the extent of 25 per cent

† Not paying attention to this difference of system, the earlier wool-growers in Australia attempted to raise wool which should compete with the finer produce of Germany and failed and even had they succeeded, would only have had a fleece weighing  $1\frac{1}{2}$  lb at 3 S = 4s 6d. They now have a less costly, but more marketable staple, averaging  $4\frac{1}{2}$  lbs at 2 S = 9 S, and not unfrequently 5 to 6 lbs per fleece, but it took some years to retrieve the error that had been committed at the outset †

‡ To improve the fleece of the native sheep, crosses have been attempted with imported Merinos and Southdowns, but all with more or less want of success. Mr Hulse, veterinary surgeon at Muttra, thus enumerates the causes which induced the failure of some Merinos which came into his possession —

" 1st There is the greatest difficulty and it is almost next to an impossibility, to get a trustworthy shepherd, and (unlike the shepherds of old) they are excessively stupid and ignorant.

" 2nd The sheep must always remain housed, for if the shepherd is allowed to take them out to graze he will to a certainty allow them to mix with other sheep, and the breed will be ruined

§ The expense is very great in keeping them always housed, and the price realised when fat will not admit of it

" 4th The lambs do not grow to the size of the imported sheep

" 5th The wool of the progeny bred in this country becomes coarser, and is consequently of less value. It is also essential that the wool should be long, in order to make the best price of it, the sheep should therefore be shorn annually, but it is found in the upper provinces that sheep will not fatten with heavy fleeces, and therefore it is necessary to shear them twice during the year, viz, about the beginning of March and middle of September, a thick fleece also retards their growth

" 6th They degenerate not only in size (as spoken of), but in appearance. Instead of the black spots upon the face, and frequently upon the legs, instead of the buck legs, and brown or tan colour of them, many of the young have thick coarse legs, covered with short coarse wool. In fact, in every way they lose the same appearance as was possessed by the imported sheep

" 7th The sun and rain, extreme heat and cold will kill them

" 8th The size of the mutton is not larger than what is commonly met with in Calcutta, nor would it be so large if proper attention was given to the feeding of Behar or Meywar sheep, for the Calcutta market †

The sheep of Mysore, mentioned by Dr Buchanan, *yield decidedly the wool most resembling that of English growth that I have seen in India*. From the sheep being natives of the tropics, from their compact form and from the bulk of their fleeces, I believe that more could be done for the improvement of Indian wool, and the consequent increase of its export by a careful attention to this kind of sheep, than by any other direction of effort

1 So long as the pastures are scanty, to give each sheep a small allowance of grain daily

2 To give them as regularly a supply of salt. Its use for this purpose is not altogether unknown in the East but in some countries, as in Spain, it is given to their flocks at the rate of 112 lbs to every 1000 sheep in five months. Mr Curwen, the late M P for Cumberland gave every sheep of his numerous flock about half an ounce *per diem*. I have heard more than one great flockmaster say, that no sheep, either in flesh or

\* Proceedings of Agri Hort Soc of India, March 1840 p 12

† Ibid p 18

fleece, would succeed well without a supply of salt' Mr Youatt, *no mean authority*, says, 'that it is the basis of every medicine which really has power over the rot and in the early stage of that disease it has often completely arrested its fatal progress'

" 8 The third and last essential point I shall mention is providing shelter for the flock This can be done at a very trifling expense, and the benefit to the general health, and to the superiority of the wool, I am told, is only to be appreciated by those who have compared the fleeces of sheltered sheep with those produced by sheep exposed without any care to the full meridian sun, to the heavy night dews, and to the storms of these tropical latitudes—a few panels made of mat hurdles, supported by stout bamboo stakes, and arranged in the form of a rectangular cross, is all that is required, and may be constructed in the vicinity, or in the middle of the usual pasturage, and moveable at pleasure, for a very few rupees'

#### BRITISH WOOLS AND WOOL TRADE.

THE British legislature having, for a long period, prohibited the exportation of wool affords an example of folly as well as of ignorance and stupidity, which experience has established, by the extraordinary increase of the importation of foreign wools It is not within the scope of this work to enter into lengthy details respecting the kinds and qualities of wools further than that in statements regarding Oriental commerce, and also with respect to the prospect which China may open for the sale of British woollen manufactures, and the increasing supply of the raw material from the Cape of Good Hope, the Australian colonies, and India, wool and the woollen trade constitute in commerce a subject too important to be overlooked

Wool has been usually considered as long and short wools, and these again into various subdivisions of length and fineness

Cleanliness adds greatly to the value of wool, and in this respect the sheep wools of India, like the cotton wool, is said to be generally dirty Spanish wool is always well washed immediately after shearing, English wool is usually, we believe, washed rather imperfectly before it is shorn

Merino sheep were introduced into England in the reign of George III, who patronised this breed But it has been ascertained that, though the fleece does not much degenerate here, the carcase, which is naturally ill-formed, and affords comparatively little weight of meat, does not improve, and as the farmer, in the kind of sheep which he rears, must look not only to the produce of wool, but also to the butcher market, he has found it his interest rather to return to the native breeds of his own country, and to give up the Spanish sheep They have been advantageously crossed with the Southdown and others, but without crossing they were found to be unprofitable from their inferior flesh

According to the evidences taken before the Lords in 1828, and other statements, it was considered that the quality of British wool had deteriorated for several years This is supposed, or affirmed, to have arisen from the sheep-owners being anxious to increase the weight of the carcase and the quantity of wool at the same time Mr Culley asserted, "that the Herefordshire sheep that produce the finest wool are kept lean, and yield 1½ lb each, and if they be better kept they grow large and produce more wool, but of an

inferior quality' The turnip culture has contributed to a larger breed of sheep, and lessened the value per lb of the wool Mr Fison says ("Report," p 356), 'that twenty-five years ago the weight was  $2\frac{1}{2}$  lbs a fleece, and that now it is 3 lbs or  $3\frac{1}{2}$  lbs' According to a table furnished by him, it appears that of fifteen tods, or 420 lbs of clothing wool grown in Norfolk in 1790, 200 lbs were prime, while in 1828 the same quantity of Norfolk wool only yielded 14 lbs prime), and other witnesses confirm his statements

Mr Luccock, in his "Treatise on English Wool," estimates that all sorts of wool yielded by the sheep of England in 1800 at 384,000 packs, of 240 lbs a pack Mr Hubbard, a wool-stapler at Leeds, estimates the quantity of wool produced could not, from the greater weight of the fleece, be estimated under 463,169 packs

Mr Luccock estimated the

Number of long woolled sheep in England and Wales in 1800 was	4 153,308	
—of short-woolled ditto	14 854 299	
	<hr/>	19 007 607
Total number shorn		
Slaughter of short woolled sheep per annum	4 221 748	
Carrion of ditto	211 087	
Slaughter of long woolled do	1,180,413	
Carrion of ditto	59 020	
Slaughter of lambs	1,400 360	
Carrion of ditto	70,028	
	<hr/>	7,142 856
Total number of sheep and lambs		26 150 468

In Scotland, during the last sixty years, a great increase has taken place in the number of sheep In the Highlands, many of the proprietors have transformed their estates into large sheep farms The Cheviot breed of sheep have, under the term of *long sheep*, from their long wool, supplanted the small black-faced heath breed

According to a general report on Scotland, in 1814, the number of sheep was estimated at 2,850,000 Since 1814 the number may be estimated at one-third more, or altogether at about 3,750,000

According to Mr Wakefield, there was not (when he wrote) a single flock of breeding sheep in the whole province of Ulster—"Account of Ireland," vol 1, p 341) And though there may now be considerable flocks in Roscommon and other counties, we believe that if we may estimate—(though in Ireland it is difficult to ascertain any approximate estimate)—the whole number at probably not more than 1,600,000

30,000,000, or 10,000,000 less than Dr Colquhoun estimated (a very uncertain authority) for 1812, may probably exceed the present number of sheep in the United Kingdom

From 1660 down to 1825, the export of British wool was strictly prohibited Mr John Smith, in his "Memoirs of Wool," exposed the injustice and absurdity of this unwise and most arbitrary system He clearly proved that if manufactures could be prevented the exportation of wool, this was more than counter-

balanced by the loss to the agriculturists. But, in despite of Mr Smith, the prohibition of the exportation of wool was continued until 1825.

As late as the year 1802 the importation of foreign wool into Great Britain was free of duty. In 1802 a duty of 5s 3d a cwt was imposed on all foreign wool imported. In 1813 the duty was raised to 6s 8d, and in 1819, Mr Vansittart raised it to 56s a cwt, or 6d per lb.<sup>1</sup> The use of foreign wool had become indispensable for the manufactures, and the imposition of a duty of fifty per cent caused the manufactures to suffer for a considerable period after.

In the evidence taken before the Lords' Committee on the subject of wool Mr Gott, of Leeds, informed the committee that he used only foreign wools, and that, in certain descriptions of cloth, "he could not make an article that would be merchantable at all for the foreign market, or even for the home market, except of foreign wool."

"Can you give the committee any information with respect to the competition that exists?"—"I think the competition between foreigners and this country very strong. In some instances the foreigner has, probably, the advantage, and in others the superiority of the British manufacture, I think, has greatly the advantage, that would apply, I should say, particularly to the fine cloths of Great Britain compared with foreign cloths, in some descriptions of low cloths, the foreigners are nearly on a footing, and in some instances, perhaps, superior to us."

"Speaking of the finer cloths, is the competition such as to render an additional duty on the importation of foreign wool likely to injure the export trade?"—"I have no doubt, speaking on my oath, that it would be fatal to the foreign cloth trade of the country. I would say further, that it would be equally injurious to coarse manufactures of all kinds made of English wool. The competition now with foreigners is as nearly balanced as possible; and the disturbing operation of attacks of that description would necessarily enable the foreigner to buy his wool cheaper than we should do it in this country. The result would be, that foreigners would, by such a premium, be enabled to extend their manufactures, to the exclusion of British manufactures of all descriptions."

On being asked whether, in his opinion, the price of British wool would have been higher, had the duty of 6d per lb on foreign wool been continued, he replied—

"My opinion is, that the price of British wool would have been far less at this time."

The duty was afterwards, in 1820, reduced to 1d per lb on foreign wool, and in 1845 Sir Robert Peel abolished the duty.

TOTAL Imports of Sheeps' Wool into the United Kingdom since 1800

YEARS	Weight.	YEARS	Weight.	YEARS	Weight.
	lbs		lbs		lbs
1801	2 371 774	1817	14 061 782	1833	38,076 418
1802	2 656 759	1818	24 745 370	1834	46 485,239
1803	5,904 740	1819	16 160,970	1835	45,664 656
1804	2 981 295	1820	9 775,695	1836	60 366,415
1805	8 069 730	1821	16 632 567	1837	42,518,939
1806	6 775 525	1822	19 038,060	1838	53 811,997
1807	11 487 030	1823	19 364,725	1839	22 940,221
1808	2 284 458	1824	22 564 485	1840	49 710 306
1809	6,758,934	1825	43,810,960	1841	52 802 082
1810	10 914 137	1826	15 569 118	1842	44 079 144
1811	4 732 782	1827	20 115 248	1843	45,443,079
1812	6 987 575	1828	80 236 046	1844	65, 13 61
1813	records de-	1829	21 516,640	1845	70,813 855
	stroyed by fire	1830	22 303,314	1846	65,285 468
1814	15 429 311	1831	31 652,025	1847	68,140,307
1815	13 640 975	1832	28 142 489	1848	
1816	7 617,866				



## QUANTITIES of Wool Imported during the following Years —

COUNTRIES TO WHICH EXPORTED	1810	1820	1835	1850	Rates of Duty Chargeable	
	lbs	lbs	lbs	lbs		free
Russia, Sweden and Norway	39 803	75 614	1 096 000	201 231	Until July 5 1803	free
Denmark	831 741	13 527	551 313	17 117	From July 5 1803 to June 1804	5s 2d. per cwt
Prussia	123 65	107 101	131 100	713 246	— June 1 1804 to April 5 1805	5s 10d
Germany	778 813	5 113 442	26 59 6 1	26 0 1852	— April 5 1805 to May 10, 1806	8s 11d 8 20ths
The Netherlands	8,873	186 031	1 059 513	550 1 2	— May 10, 1806, to May 10 1806, to July 5 1809	6s 4d 2 20ths
France		430 909	446 678	45 093	— July 5 1809 to April 15 1813	6s 6d per cwt
Portugal	3 018 061	95 187	523 03	461 042	— April 15 1813 to July 5, 1819	7s 11d
Spain and Canaries	5 532 407	3 539 729	8 290 427	1 043 515	— July 5 1819 to Oct 1819	1d per lb
Cirolaria	311 058	3,851	19 290			
Italy	21 554	2 815	227 453	9 461		
Mits	40 040	3 050	72 181	25 983		
I 1 an Islands			513 414			
Turkey		180 584				
Morocco						
Gu rsey Jersey Al deru y and Man	41,407	10 615	22 266	7 745		
East Indies	701	6 036			Of British Possession	Of Foreign Countries.
New H 1 and Van Diem n Land	17	99 415	323,025	1 977 300	From October 10 1810 to January 5 1825	1d per lb
Cape of Good Hope	29 717	13,869	27 619	33 407	— January 5 1825 to September 10 1824	6d
British North American Colonies West India and Louisiana					— September 10 1824 to December 10 1824	3d
State of America	4 111	1 477	60 538	9 038	— December 10 1824 to July 5 1825	1d per lb
Mexico					— July 5 1825 to July 5 1825	free
Peru		14 799	11 313	5 741		
Chili			2			
Rio de la Plata and Brazil	116 173	73 036	331 309	20 580		
Priz	23 637					
TOTAL IMPORT from foreign parts	10 914 107	9 780 020	43,705 281	32,312 059		
Quantit retained for home consumption		7 091 773	41 101 630	31,322,869		
Amount of duty received	£ s d	£ s d	£ s d	£ s d		
	31 200 4 3	181,600 19 0	163 799 15 7 1/2	100 420 8 0		

**THE ALPACA**—The wool of the alpaca, or rather of the variety of the animal called *vicuna*, imported from South America, has recently entered into our manufactures, as a fine raw material, of which a cloth is made little inferior to silk in beauty. It is very durable, and if it could be obtained in sufficient quantities, would be of the utmost value. Peru is the apparently native country, of the *vicuna* genus, where it feeds in flocks on the mountains. It is supposed that its numbers might be rapidly multiplied. It is easily domesticated. The varieties are not well ascertained. The alpaca is used as a beast of burden like the camel, though much smaller. The guanaco, alpaca, lama, and *vicuna*, are evidently varieties of the same genus. The *vicuna* is the variety or species, which yields the finest wool. They are said to be numerous in the Cordilleras of the Andes. They would thrive undoubtedly among the Alps and Pyrenees. They feed in flocks like goats, are very timid, and easily surrounded, caught, speared, or killed, the wool is susceptible of all artificial dyes.

QUANTITIES of Sheep and Lambs' Wool Imported into, and Re exported from, the United Kingdom, from 1881 to 1840

COUNTRIES	QUANTITIES IMPORTED INTO THE UNITED KINGDOM									
	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
Russia	203,960	855,680	1,346,893	3,107,551	4,084,740	3,422,012	2,114,040	3,769,102	7,956,494	4,117,658
Sweden	-	-	24,235	51,624	1,124	22,461	680	-	1,773	3,901
Danmark	252,918	807,448	374,400	620,007	256,443	516,227	480,047	624,047	631,525	605,921
Prussia	606,982	831,588	205,170	307,517	23,147	591,880	19,068	181,267	63,688	24,647
Germany	29,487,023	18,882,733	28,370,106	27,534,615	28,798,180	31,706,194	19,705,484	27,501,592	23,837,905	21,812,464
Holland	-	-	345,387	180,412	801,855	1,101,550	261,037	1,28,340	297,499	4,547
Belgium	630,840	300,144	467,065	390,398	321,328	800,471	307,122	265,371	259,177	134,095
France	713,854	1,073,584	259,844	1,020,108	104,336	1,006,263	149,340	29,630	83,141	48,120
Portugal	413,704	103,544	881,908	1,233,821	684,231	510,678	627,409	1,034,994	374,915	374,915
Spain and the Balaric Islands	3,474,823	2,676,624	3,335,150	2,343,515	1,603,733	2,818,137	3,444,817	3,409,652	3,201,105	1,201,105
Central	-	-	161,842	171,842	470,137	1,411,024	631,660	17,168	482,007	392,734
Italy and the Italian Islands	49,243	78,582	835,910	2,650,819	1,021,005	2,824,807	1,314,407	1,708,544	1,692,037	1,608,941
Malta	109,321	664	4,863	142,777	20,513	8,480	11,866	32,218	4,500	121,110
Tonnan Islands	-	-	-	-	-	40,795	84,393	87,073	42,923	42,923
Morocco and Greek Islands	-	-	-	-	-	-	-	-	-	-
Fu Key &c	11,447	17,999	303,301	1,474,528	1,241,230	2,127,094	2,207,754	77,018	1,183,539	600,007
Tripoli Tuata Algiers, and Morocco	-	14,463	105,089	1,977,816	811,625	761,810	128,323	611,426	465,001	371,908
Cape of Good Hope	47,686	82,267	93,323	141,707	191,681	321,972	408,011	422,506	628,114	793,741
East India Company's Territories and Ceylon	-	-	3,721	67,703	295,648	1,686,303	1,880,741	1,807,806	3,103,545	2,441,710
British Settlements in Australia	2,429,227	2,377,007	2,816,969	2,688,021	4,210,301	4,290,640	7,060,625	7,867,448	10,128,774	9,311,488
British North American Colonies	-	-	-	281	14	118	4,814	4,818	1,370	15,193
— West Indies	618	977	610	152	-	-	-	-	-	-
Cuba and other Foreign West Indies	400	-	-	-	-	-	-	-	-	-
United States of America	16,411	228,038	334,078	2,048,300	237,266	639,850	237,360	67,785	149,163	115,025
Brazil	1,011	1,456	3,049	1,099,020	602,900	2,073,470	2,027,041	1,709,636	226,751	617,151
States of the Rio de la Plata	12,944	30,380	207,143	1,292,228	602,900	2,073,470	2,027,041	1,709,636	226,751	617,151
Chili	-	-	-	62,795	80,114	845,216	376,217	1,16,144	1,34,100	68,210
Peru	1,035	23,101	14,064	172,467	208,26	685,218	1,014,731	2,014,088	2,142,571	2,710,173
Other places	268	7,180	48	32,077	2,377	11,227	25,689	3,048	17,960	41,707
<b>TOTAL</b>	<b>31,052,020</b>	<b>24,128,973</b>	<b>38,016,067</b>	<b>40,450,332</b>	<b>42,174,44</b>	<b>64,440,977</b>	<b>48,779,708</b>	<b>59,691,335</b>	<b>57,311,143</b>	<b>49,126,244</b>
COUNTRIES	QUANTITIES RE EXPORTED FROM THE UNITED KINGDOM									
	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs
Germany	33,111	27,056	16,096	2,249	17,100	7,134	32,019	19,259	25,380	16,016
Holland	-	-	69,407	52,816	71,492	68,157	128,738	41,259	107,282	88,532
Belgium	287,063	483,099	265,127	102,428	200,197	40,743	1,174,750	1,223,133	97,253	684,097
Prussia	-	67,772	88,030	241,926	618,207	43,810	1,018,080	408,407	63,939	180,966
British North America	9,710	2,295	1,445	894,061	409	3,060	9,107	7,470	1,09	1,840
United States of America	791,040	16,472	55,036	894,061	3,109,376	447,005	879,113	144,770	224,411	163,437
Isles of Coersney (Foreign Goods)	7,222	2,464	2,364	7,523	7,078	6,646	4,076	8,808	3,130	2,100
Other places	4,167	4,910	4,853	33,338	67,623	71,567	71,567	4,3	2,38	26
<b>TOTAL</b>	<b>1,025,82</b>	<b>535,914</b>	<b>442,190</b>	<b>807,862</b>	<b>4,101,700</b>	<b>613,707</b>	<b>2,631,352</b>	<b>1,807,810</b>	<b>1,104,040</b>	<b>1,011,025</b>
Total quantities retained for home consumption in the United Kingdom	20,626,998	27,673,359	35,000,020	40,640,271	41,718,014	62,266,410	42,515,600	65,613,597	62,959,241	49,710,200

STATEMENT of the Quantity of Sheep's Wool imported into the United Kingdom in 1841 and 1842

COUNTRIES FROM WHICH IMPORTED	1841	1842	COUNTRIES FROM WHICH IMPORTED	1841	1842
	Wool Sheep's	Wool Sheep's		Wool Sheep's	Wool Sheep's
Russia	4 131 052	4 368 553	Brought forward	30 435 889	22 6 6290
Sw A n	1 253		Cape of Good Hope	1 079 610	1 68 768
Norway	111 0	501	St Helena and Ascension Islands	90	
Denmark	7 5 36	671 48	Mauritius		612
P u n a	10 123	171 012	East India Company's Territories		
C u n a	20 58 75	15 612 2 9	and Ceylon	7 08 21	4 11 083
B r i d	121 002	4 417	British Settlements in Australia	12 30 600	1 5 671
B l e m	300 80	475 73	N w Zealand	279	
France	14 659	7 94	British North American Colonies	4 841	17 128
— Azores	670 071	133 006	— West Indies	5 31	115
— Madeira		45	United States of America	58 91	50 008
S p a n i s h the Balearic Islands	1 0 6 209	670 23	Brazil	318	4 270
C i b a l t	2 8		States of the Rio de la Plata	5 10 63	1 400 105
Italy and the Italian Islands	1 30 2 1	236 370	Chili	92 812	170 683
M a l t a	1 990	3 054	Other Places	3 144 066	1 6 605
I a l l a n d s		41 899			319
T r e k	447 563	732 857	TOTAL Imports	56 1 0 750	1 881 921
N a n a l Isles		200 396	Quantities retained for Home Consumption (including the quantities exported subsequently to the payment of duty)		
F y n e	70				
T r i b u Tunis Algiers and Morocco	85 250	66 175			
Carried forward	10 428 885	17 670 270		50 620	44 022 141

COUNTRIES	1843			1844			1845		
	FOREIGN WOOL		British Wool Exported	FOREIGN WOOL		British Wool Exported	FOREIGN WOOL		British Wool Exported
	Imported	Exported		Imported	Exported		Imported	Exported	
R u s s i a	lbs 3 511 18	lbs	lbs	lbs 5 402 098	lbs 16 558	lbs	lbs 8 705 54	lbs	
S w e d e n	30 86			3 144					
D e n m a r k	645 56			1 604 098			1 330 745		
P r u s s i a	13 317		2 240	2 71 455			2 11 844		
C e n t r a l	16 80 448	1 781	11 300	21 847 641	14 900	13 997	18 400 30	8 006	
H o l l a n d	51 710	48 878	92 713	330 196	75 8 6	240 750	128 019	184 3 0	
B e n e t u i n	2 7 022 24	8 633	7 302 1 0	773 171	1 204 215	2 2	3 06 226	2 145 211	
F r a n c e	2 4	130 021	1 67 708	1 82 8 80	46 204	1 665 1 0	1 75 0 4	64 941	
P o r t u g a l Azores and Madeira	475 423	1 284	486	1 340 013	460	0 0	7 96 3 1		
S p a i n and the Canaries	697 91			918 854		350	1 074 540		
G i b r a l t a r	4 6 3			373 167			464 351		
I t a l y	231 113	4 452		2 618 553			2 241 998	140	
M a l t a	20 28			16 4 06			116 711		
M o r o c c o and the Greek Islands	508 20	1 390 963		352 159		1 549	285 6 7		
S y r i a and Palestine							1 63 130		
E g y p t							211 678	269	
M a d a g a s c a r	81 788			1 101 984			303 963		
C a p e of Good Hope	173 328			2 197 368			3 550 913		
I n d i a and China	1 246 1 90								
S t H e l e n a and Ascension Island				6 820					
M a u r i t i u s				18 721					
E a s t I n d i a C o m p a n y ' s T e r r i t o r i e s and C e y l o n	37 983								
J a v a				2 765 853		200	3 975 966	754	
B r i t i s h S e t t l e m e n t s i n A u s t r a l i a and N w Z e a l a n d							1 518		
N w S o u t h W a l e s	11 942 005			12 406 397					
V i c t o r i a L a n d	3 203 040			4 411 604					
S t R i v e r S e t t l e m e n t	140 641								
S t e e r W a r r i n g				109 243			24 177 317		
S o f A u s t r a l i a	1 387 214			862 268					
N w I n d i a				12 035					
B r i t i s h N o r t h A m e r i c a n C o l o n i a s	13 125	4 799	1 200	32 887		166	18 980		
— W e s t I n d i e s	18 807			3 200			4 016		
U n i t e d S t a t e s of A m e r i c a	136 737	90 392	88 983	27 255	866 431	140 317	85 148	198 300	
M e x i c o	2 035		7	39 699				29	
B r a z i l	28 159			65			114 420		
S t a t e s of the Rio de la Plata	1 479 7 03			2 186 291			2 033 3		
C h i l i	112 841			2 28 050			328 575		
I o r o	1 115 191			821 032			1 654 825		
Other Places		2 895	5 72			1 400	170	850	
TOTAL	4 785 061	7 24 641	5 179 635	6 075 524	1 924 82	8 947 619	75 5 1 050	2 060 161	

The quantity of sheep's wool imported in 1847, shows a great reduction upon that of 1846—and a still greater reduction when compared with 1845. Thus—

1845	76 813 855 lbs
1846	65 255 462
1847	62,130 307

There has also been a large increase in the quantity re-exported during the last year—leaving a still greater reduction on the quantity retained for home consumption, the comparison of which will be thus shown —

	1845	1846	1847
Imported	The 76,813,855	lbs. 65,255,462	The 62,130,307
Re-exported.	2,663,333	3,011,080	4,800,725
Left for consumption	74,150,522	62,244,382	57,329,582

Showing a reduction in two years of nearly 14,000,000 lbs

The following table shows the quantity of wool in bags imported from each market of the world into the ports of London, Liverpool, Hull, Bristol, and Leith.—

COLONIAL and Foreign Wool, imported into London, Liverpool, and Hull, from the 1st of January to the 31st of December in the Years 1846 and 1847, and the Total Imports, including Bristol and Leith

C O U N T R I E S.	London		Liverpool		Hull		TOTAL, including Bristol and Leith	
	1846	1847	1846	1847	1846	1847	1846	1847
<b>COLONIAL.</b>	bags	bags	bags	bags	bags	bags.	bags	bags
New South Wales	33 137	42 409	1 420	71			46,556	42,540
Van Diemen's Land	14 453	1 361					14 453	17 361
Port Philip and Adelaide	34 439	50 115	1 715	4 010			36,154	33 1 5
Cape of Good Hope	11 176	13,481	4.0	85			11 176	13,466
East India	6 746	2 901	4 333	5,231	36	1	11 315	8 193
<b>Total Colonial</b>	93,940	103 347	8 137	9,337	36	1	104 103	114 733
<b>FOREIGN.</b>								
Germany	9 610	7,382	27		42,796	29,309	53 078	41 340
Spain and Portugal	3,766	1 829	4 317	3 119			8 083	4 438
Russia	5,844	6,300	440	70	1 167	703	11 453	7 055
South America	7 096	13 323	49 902	45,06			87 630	61 119
Sarbaria and Turkey	2 94	3,300	3,427	7 0 5			9 222	3 063
Syria	1 160	4 90	498				1 650	498
Triest, Leghorn &c	383	387	3,007	2,966	61		3 622	3,592
Denmark					1,400	942	1 414	949
United States	437	18	1,983	1 626			3 410	1 944
Sundry	1 636	2 354	1 644	3,130	334	439	3 014	5,233
<b>TOTAL.</b>	134,139	142 280	73,524	67 475	43,604	34 706	135,435	145,781

There was a considerable increase in the quantity of colonial wool imported in 1847, the chief decrease arose in German, Spanish, Russian, and other continental wools, and in those of the United States

## WOOLLEN MANUFACTURES OF GREAT BRITAIN, AND THE MARKETS FOR SALE

THE progress of the woollen manufactures of the United Kingdom, and the great perfection which woollen fabrics have attained in Belgium (Verviers, &c), France, Austria (Moravia, &c), Germany (Saxony, &c), renders any inquiry, as to the opening of new markets, interesting. Woollen apparel, it is evident, will only be extensively used in cold or temperate climates. The countries to which our woollen fabrics are chiefly exported will be found in the following tables.

In India and China the use of British woollens has hitherto been very limited in quantity, but as climate forms a cause of necessity, the temperate and colder parts of India, China, &c, should hereafter afford an extensive sale for British woollen cloths, if made to suit the fashions and wants of the inhabitants.

We will offer but few details relative to the origin of British woollen manufactures. Cloths of wool were actually made at the earliest periods of which we have any account in Great Britain. More than 100 years before the statutes of Edward III to regulate the woollen manufactures, we find broad cloths two yards in width in the lists mentioned in the statutes. In 1331, weavers, dyers, and pullers came in great numbers by invitation from Flanders to settle in England. This may be considered the date at which the woollen manufacture, as a great branch of industry, was established. In 1337, any cloths made beyond the seas, were prohibited to be worn in England, but in those days evasions of mere laws were common. The weavers were gradually distributed over several counties, viz, in Yorkshire, Suffolk, Worcestershire, and Norfolk. In 33 Henry VIII, c 10, "worsted yarn is set down as the private commodity of the city of Norwich." *Worsted* manufactures, derive the name from a small village where first made, and still called *Worsted* in Norfolk. The numerous statutes attempting to regulate the woollen manufactures, abound with the most absurd restrictions. *Medley* cloths were made in 1614, in Gloucestershire.

It is stated in "Rees's Cyclopædia"—"From the most remote period of the woollen manufacture until the latter end of the last century, or about 1780, very few, if any, mechanical improvements had been introduced into it. During the whole time the various processes were carried on nearly in the same manner, but with greater or less skill, and were employed upon materials more or less valuable. The carding and spinning of wool and the weaving and finishing of cloth, in the early part of the reign of George III, were effected by the same machines as in the reign of Edward III, which, probably, were similar to those of the ancient Romans, but more rude in their construction. In an art which

had seen so many centuries roll on without any change, it did not appear possible to the manufacturer that any improvement could be effected, and had not the genius of Hargraves and Arkwright changed entirely the modes of carding and spinning cotton, the woollen manufacture would probably have remained at this day what it was in the earliest ages of civilised society”

The repeal of the acts of Edward VI and of Philip and Mary, in 1807, led to the introduction of gig-mills, shearing-mills, brushing-mills, and other improvements, which were also caused by the astonishing progress of the rival cotton manufactures, many articles of which began extensively to supplant the use of woollen cloths

Gregory King and Davenant estimated, near the end of the seventeenth century, the value of the wool shorn in England at 2,000,000*l* a year, and they supposed that the value of the wool (including that imported from abroad) was quadrupled in the manufacture, making the entire value of the woollen articles annually produced in England and Wales 8,000,000*l*, of which about 2,000,000*l* were exported. In 1700 and 1701, the official value of the woollens exported amounted to about 3,000,000*l* a year. The increase in the quantity of woollen fabrics exported was inconsiderable. The home market creating the chief demand. For if we take the amount of the six years, ending 1789, the official value of exports was 3,544,160*l* a-year, or about 540,000*l* more than the value exported in 1700. In 1802, the official value of the exports amounted to 7,321,012*l*, being greater than in any year until 1833, when the value amounted to 7,788,842*l*.

The following tables will exhibit the progress of the export of woollen manufactures since the year 1815

SUMMARY Account of the Quantity and declared Value of the Woollen Yarn, and of the Quantities of the different Descriptions of Woollen Manufactures, with the Total declared Value of the same exported from the United Kingdom, in each Year from 1815 to 1848, both inclusive.

YEARS	WOOLLEN AND WORSTED YARN		WOOLLEN MANUFACTURES										
	Quantity	Declared Value	Cloths of all Sorts.	Napped Costings, Duffels &c	Kersey-mores and Baises	Stuffs Woollen or Worsted	Flannel	Blankets and Blanketing	Carpets and Carpetsing	Woolens mixed with Cotton	Hosiery viz Stockings Woolen or Worsted.	Sundries, consisting of Rugs Tapes &c	Total declared Value of Woollen Manufacture
1815			634 369	58 888	169 728	653 308	7 056 871	3 107 187	793 793	591 71	202 900	265 200	9 891 426
1816			467 228	90 481	141 221	285 842	8 092 331	1 284 409	820 038	764 445	119 645	192 101	7 844 758
1817			478,378	93,339	144 717	674 448	8,814 101	2,305,269	842 480	851 874	160 386	147 373	7 173 755
1818			440,878	78 505	103 046	697 444	4 611 860	2 706 004	1 114 230	8 848 8	161 217	1 0 437	8 140 767
1819			349 044	60 674	111 459	717 581	3 022 761	1 777 719	620 630	4 537	101 473	42 300	5 984 140
1820	3 964	810	288 700	54 644	115 827	828 901	2 606 109	1 388 409	596 194	407 710	89 660	3 247	5 861 138
1821	5 121	1 317	375 436	69 792	133 010	1 022 142	3 048 1	1 424 38	764 928	627 800	107 779	38 86	6 142 006
1822	12 315	3 392	4 0 47	87 757	139 317	1 0 8 28	4 563 819	1 970 711	863 927	1 150 320	136 357	4 042	6 484 167
1823	6 428	1 727	356 027	54 2 6	126 863	1 186 183	4 311 967	2 131 632	778 492	918 469	107 450	44 719	5 237 586
1824	12 140	2 188	407 720	81 585	185 117	1 242 403	3 105 961	1 500 041	848 448	1 138 443	113 128	43 161	6 043 031
1825	79 661	14 407	284 280	4 268	1 3 548	1 134 408	2 976 304	2 162 434	888 224	1 756 301	109 458	4 326	6 185 744
1826	131 052	32 704	326 509	41 809	124 460	1 137 458	2 423 120	1 088 842	963 637	831 317	71 229	4 956 8 9	5 7 41
1827	28 743	8 398	2 1 965	81 600	109 623	1 328 467	3 518 887	1 609 600	1 105 039	840 68	134 117	43 350	5 425 40
1828	438 7 2	56 243	335 042	40 646	134 091	1 310 853	2 530 766	2 097 342	1 197 947	981 193	150 163	46 814	5 090 41
1829	68 534	73 648	363 0 5	10 186	87 242	1 207 554	1 72 920	1 820 061	811 538	1 074 977	91 213	41 448	4 58 609
18 0	1 108 023	132 430	384 869	95 377	83 878	1 282 312	1 614 069	2 170 991	672 466	1 060 318	111 140	54 038	4 728 566
1831	1 852 435	1 38 111	436 183	13 862	80 209	1 187 104	1 78 88	218 3 8	778 640	1 000 004	149 774	64 618	5 32 013
1832	2 204 464	235 307	389 601	22 452	78 828	1 860 714	2 704 750	1 681 80	690 822	1 334 672	15 810	55 142	6 147 29
1833	2 107 4 8	246 264	6 77 189	1 543	70 531	1 790 39	2 055 0 2	2 128 106	607 377	1 66 8 6	272 706	74 250	6 142 132
1834	1 818 114	238 442	521 814	92 265	67 299	1 98 7 8	1 821 344	2 437 776	667 912	1 233 669	173 063	7 411	6 185 870
1835	3 2 3 231	309 091	61 1 600	50 293	77 033	1 073 069	3 867 629	3 192 341	636 848	1 7 8 900	307 018	110 4 5	6 840 311
1836	2 546 177	358 649	729 87	2 814	65 165	1 406 800	2 190 068	4 121 876	1 908 013	1 17 524	162 192	142 853	7 831 3 3
1837	2 518 718	333 088	347 787	23 605	66 407	1 441 036	1 685 457	2 471 093	753 364	1 081 1 2	7 7	92 177	4 525 1 7
1838	3 045 8 9	381 35	61 503	30 47	63 371	1 238 684	1 719 325	2 574 806	747 33	1 487 1 1	100 8	128 113	6 178 000
1839	3 240 441	4 18 220	3 28 534	37 045	60 311	1 665 306	1 727 043	3 148 840	507 899	2 784 014	11 093	2 8 277	6 971 645
1840	3 56 744	4 2 407	215 746	16 094	68 169	1 18 177	1 713 477	2 102 633	758 679	2 8 8474	36 406	164 634	6 477 8 3
1841	4 103 291	5 248	213 1 5	11 491	59 4 1	2 007 766	1 880 7 4	2 187 439	809 316	3 017 087	13 009	203 090	6 748 6 3
1842	5 872 401	63 263	171 675	8 433	47 364	1 275 492	1 619 196	1 247 591	753 02	6 350 819	13 004	152 229	6 185 045
1843	7 410 212	74 888	241 160	6 273	60 823	3 443 374	3 443 374	3 443 374	3 443 374	3 443 374	3 443 374	187 507	6 370 452
1844	8 271 106	9 8 317	317 073	4 616	56 881	2 442 217	1 993 893	3 269 890	924 326	20 051 859	284 3 0	1 0 693	8 804 832
1845	7 403 028	1 066 625	307 791	4 773	48 296	2 414 906	2 405 811	3 479 4 8	1 006 070	23 841 017	174 061	178 965	7 930 118
1847													
1848													

CULTIVATION AND SUPPLY OF RAW MATERIALS

TOTAL Declared Value of Woollen Manufactures Exported from the United Kingdom in 1831 to 1847

COUNTRIES	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847
	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£	£
Russia	101 650	141 097	103 075	104,468	93 925	123 043	102 159	94 410	188,244	128 919	107,738	117 669	49 192	87 288	64,828		
Sweden	2 498	4 469	5 218	10 258	14 084	5 632	14 159	16 808	20 605	20 605	20 616	24 605	20 616	20 616	31 795		
Norway	13 347	7 645	12,311	18,554	17 225	15,255	10 640	10 478	10 463	10 623	11,022	18,186	21 944	22,528	24,288		
Denmark	7 694	1 389	2 084	2 463	2,269	2 682	2 642	1 733	1 072	1 072	1 774	1 573	3 005	1 778	3,803		
Prussia	354	657	396	227	226	92	691	916	946	494	663	814	1 181	1 890	1 981		
Germany	494 902	379,719	684,916	565 951	631 178	591 338	725 027	734 029	816,094	751 279	883,278	839 103	805 444	816 639	829 103	829 103	829 103
Holland	206,305	281 910	292 133	236 938	247 628	248 433	200,876	209 550	218 563	201 444	316 639	329 103	424 790	408 761	424 790		
Belgium	1 112	43 181	150,924	129 273	127 727	101 0 0	144 873	160,451	182 4 11	128 506	110, 54	172,620	184 288	220,491	231 685		
France	146 278	79 397	124 268	52,341	308 118	188 388	184 572	211 949	177 816	168 879	99 143	143 216	187 830	176,370			
Portugal Proper	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
— Azores	5 270	14,290	1 616 616	13 507	10,907	9,861	10 380	7 741	0 771	10 059	164 251	138,225	180 389	186 039	186,535		
— Madeira	4 378	4 540	4 902	4 902	4 902	4 902	4 902	4 902	4 902	4 902	4 902	4 902	4 902	4 902	4 902		
Spain and the Balearic Islands	194,094	35 333	107 909	62 823	60 159	40 433	30 697	26 252	28 152	28 066	60,249	40,341	63,734	80 122	112,828		
— Canaries	4 411	2,940	4 574	4 194	3,282	7 191	6 453	3 200	4 308	4 266	—	—	—	—	—		
Gibraltar	15 454	28 681	19 435	124 174	34 419	29 189	47 042	45,700	76,303	80 679	92 291	84 326	109 731	118 023	74 927		
Italy and the Italian Islands	204 162	194 062	260 712	254 243	243 282	241 040	178,055	238 157	223 694	222 654	203 797	230 727	234 300	331 990	291 024		
Malta	8 302	8 600	8 096	3 277	3 487	4 313	3 169	1 840	1 718	9 152	2 284	77	1,699	8,000	4 611		
Ionian Islands	1 024	2,322	1 724	1 186	1 186	868	80	303	74	410	593	77	1,699	4 824	4 158		
Mores and Palearic Islands	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Turkey	18 286	27 229	20 102	29 339	41 284	31 023	14,420	25,083	22 151	25 988	20 913	35,051	44 536	65,290	120,483		
Syria and Greece	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Egypt	—	140	678	1,078	1 603	1 214	412	1 208	1 470	871	901	2,270	3,436	2,637	4 318		
Tripoli, Tunis, Algiers, and Morocco	456	1 190	777	1 186	863	946	3 403	4 988	1 292	—	—	—	—	—	—		
Cape of Good Hope	7 176	4 73	49,004	80 423	34 900	49 975	60 889	64 778	63 658	44 798	50 185	5 174	89,257	47 233	90 774		
Cape Verd Islands	38,498	41 767	500	1 621	1 284	323	184	869	419	815	—	—	—	76	743		
Other Ports in Africa	10	29	4 603	4,723	3 810	4 975	3 340	6 116	6 540	3 644	—	—	—	—	—		
Mauritius	1 549	127	2,613	8 510	10,414	17 117	12,059	22,911	9 481	7 041	94,447	86,200	25,027	7 277	7 948		
Isle of Bourbon	7,573	6,821	267	—	—	—	—	—	—	—	—	—	—	14 457	14 679		
Best India Company's Territories and Ceylon	—	—	—	244 265	216,021	324 727	225 679	201 990	180 178	391 071	389,710	379,005	779 905	459 448	816 485		
China	649,589	656,220	798 881	984 133	927 134	669 588	340,326	409 702	335 210	164 142	—	—	—	569 428	640 218		
Southern Java and other Islands in the Indian Seas	25 847	22,023	80,5 8	45 133	12 730	4 082	6 036	2 227	4 589	4 270	—	—	—	11 120	11 404		
Philippine Islands	973	17 328	82 177	11 540	47 063	1 629	940	1 386	712	180 060	—	—	—	3 672	3 977		
Dutch Settlements in Australia	36 360	36,620	64 182	60 268	49 923	65 004	75 660	104 120	120 192	145 022	56,816	60 406	103,024	60 788	120 428		
New Zealand	1 703	27	—	—	—	—	—	—	—	—	—	—	—	—	—		
South Sea Islands	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
British North American Colonies	248 991	362 426	376,874	208 356	418 625	528,414	399 070	350,626	611 190	448 463	515 344	425 132	268 566	330 571	261 098		
— West Indies	18,969	27 203	102 101	102 308	114 208	140 047	125 708	96 412	84 823	60 847	29,519	89 422	90 299	78 099	69 444		
Haiti	5 245	27 815	10 176	10 793	13 876	11 711	3 379	5 274	11 683	9 107	60,908	68 740	37 950	77 945	88 252		
Other and other Foreign West Indies	37 318	31 704	90,179	89 818	65 024	93 373	84 596	60 544	59 709	61 784	—	—	—	—	—		
United States of America	2 327 129	1,420 643	2,305 407	1,749 934	2 211 921	1 735,645	1,645 470	1 654 260	1,432 358	1 069 721	1 021,980	973 617	1,543,278	1,444 160	1 703,460		
Mexico	64 491	16,876	43 982	57 487	35 577	10 653	40 433	37 445	64 327	68 490	68,490	68,490	829 186	92 324	73 727		
Central America	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Colombia	19 240	31 441	85 628	1 049	—	10 565	17 365	20 220	29 701	24 000	—	—	—	88 607	90 747		
Brazil	83 333	910 163	274 609	268,309	387 787	379 634	184 428	228 132	21 869	307,590	309,984	368 200	278 171	288 294	380 676		
States of the Rio de la Plata	64 919	103 096	87 113	187 975	133 769	119 251	101 234	106 601	134 023	132 3 0	—	—	—	184 997	166,480		
Chili	132 419	302 296	176 635	100 740	85 118	144 104	109 843	62 028	123 034	166 916	—	—	—	206 241	231 102		
Peru	108 985	64 477	61 987	61 577	61 710	85,664	100 781	160,959	84 260	151 109	—	—	—	294 310	284 227		
Isles of Guernsey Jersey Alderney and Man (foreign goods)	33 064	40,265	20 724	40 214	42 062	43 058	46 881	37 808	31 728	—	21 121	40 541	51 783	31 259	65 886		
TOTAL WOVEN GOODS	5 231 012	5 244 477	6 424 728	6 36 871	6 480 511	7 629 254	6 553 977	7 703 060	6 271 618	6 237,832	5 748,673	5 322,548	6 790 323	6 701 436	7 003 117	6 314 298	6 807 790
TOTAL YERNS.	158 111	135,207	140 240	248 4	300 691	336 699	332 058	384 533	423 349	452,327	392 348	337 933	748 984	618 217	1 066,292	986 270	1 096,818
TOTAL WOOLLENS	6 389 123	5 479 786	6 565 146	6 575 413	7 180 662	7 958 023	7 386 955	8 087 600	6 593 237	6 789 810	6 301 021	5 822,544	7 533,911	7 319 635	8 009 424	7 242,568	7 904 608



QUANTITIES of Woolen and Worsted Yarn Exported from the United Kingdom during the Years 1831 to 1847

COUNTRIES	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840	1841	1842	1843	1844	1845	1846	1847
	lb	lb	lbs	lbs	lbs	lbs	lbs	lb	lbs.	lb	lbs	lb	lbs	lbs	lbs	lbs	lb
Russia	19,098	44,834	46,786	79,343	111,448	197,300	150,641	144,908	141,934	167,039	123,856	83,507	422,791	781,091	1,134,279		
Sweden	1	41					318	1,096	1,200	1,564	1,564	2,144	2,982	3,168	6,377		
Norway	148			180	284	80		2,200	661	792	953	2,144	2,982	1,441	1,764		
Denmark	713	7	7						36	624	36	1,441	1,441	1,101	1,763		
Germany	1,472	7,771	2,067	42	42	1,197			2,176	944	300	3,857	8,015	4,377			
Holland	530,236	1,118,196	1,095,410	1,017,987	1,091,868	454,881	1,423,790	770,430	2,040,950	2,628,211	2,231,208	3,056,356	4,014,745	4,532,357			
Belgium	249,250	425,251	490,648	266,773	141,723	146,733	68,744	113,661	111,747	12,115	193,784	170,019	199,110	494,872	54,805		
France	1,489	3,871	3,232	27,318	23,144	23,144	62,721	180,541	153,222	23,643	300,350	264,948	435,270	305,805	411,394		
Spain and the Balearic Islands	3,413	2,379	2,446	1,296	4,333	2,111	2,812	3,866	2,340	3,228	3,750	1,139	954	6,470	984		
Portugal	60	495	51	1,289	881	206	433	4,360	3,209	96	8,017	1,472	30,662	63,965			
Italy and the Italian Islands	114	808	56	15	104	145	145	1,099	6,766	62,380	60,056	41,428	53,372	14,338	10,126		
Malta	9,223	17,266	30,649	29,101	21,056	69,242	47,163	63,831	30,900	43,078	54,064	53,100	114,783	73,202	50,888		
Turkey				224				30				44	14	88	4,878		
West India Coast of Africa	1,727	648	156	1,212	169	903	378	585	942	410	156	106	26		200		
East India Company's Territories & Ceylon	0,564	3,656	760	3,094	2,829	15,016	1,109	1,170	2,438	3,364	3,768	1,200	4,344	872	3,720		
China				2,340									1,200	872			
Siam, Java, and other Islands in the Indian Sea				1,200					1,246								
Philippine Islands						9,362											
British Settlements in Australia	113			126	40			251	151			112	145	983	1,110		
North American Colonies	5,659	10,888	11,308	4,618	11,043	17,950	7,730	10,901	19,435	22,218	23,333	18,440	17,671	24,255	22,734		
Cuba & other Foreign West Indies		18	194		560	30			500	438	16	42	166	112	178		
United States of America	745,806	647,380	262,593	262,494	337,223	231,770	106,982	221,003	394,320	79,888	292,754	213,513	242,149	159,550	472,540		
Mexico			2,56														
Columbia			47														
Brazil	32			10	8,400	236	916				24			118	560		
States of the Rio de la Plata		1,672		6			816	672	364		294						
Chile		227												336	119		
Peru										168		274					
Isles of Guernsey Jersey Alderney and Man (Foreign Goods)	21,817	29,577	23,616	39,024	27,538	27,684	26,568	35,020	24,580	27,993		16,576	25,404	25,411	33,025		
Total Value	£ 1,924,455	2,294,464	2,107,476	1,861,814	2,257,026	1,546,177	2,512,185	3,086,892	3,320,441	3,106,614	4,903,291	5,967,401	7,410,212	8,371,008	9,405,928	9,998,270	1,060,818
	156,111	21,207	240,204	235,441	309,021	204,695	233,995	384,351	483,220	452,987	5,2148	637,303	74,898	9,982,217	1,066,281		

CULTIVATION, SUPPLY, AND MANUFACTURES OF WOOL

ACCOUNT of the Quantities of each Description of Woollen Manufactures exported from the United Kingdom in 1835, specifying the Quantities and Total Value of those sent to each Country

COUNTRIES TO WHICH EXPORTED	Cloths of all Sorts	Napped Costings DuBois &c.	Kersey merces	Balizes of all Sorts	Stuffs Woollen or Worsted	Flannels	Blankets and Blanketing	Carpets and Carpeting	Woolens mixed with Cotton	Hosiery viz. Stockings, Woollen or Worsted	Sundries consisting of Hosiery Rugs Coverslids, Tapes &c	Declared Value
	pieces	pieces.	pieces	pieces	pieces.	yards	yards	yards	yards	dos pair	£ s	£ s
Russia	2,737	5	407	50	20,310	4,996	7,765	12,650	6,340	56 0	130 5	29,025 10
Sweden	22	58	47		9,591	620	3,400	4,269	40	63 0	134 0	11,063 15
Norway	915	21	111	84	5,305	3,497	2,091	826	1,018	1,731 0	712 0	17,228 11
Denmark	40				1,040	850		1,721			56 0	3,309 0
Prussia	2				55	203		502				237 2
Germany	12,948	6,802	7,298	143	405,545	280,134	11,850	37,430	252,483	2,850 0	5,914 0	631,177 12
Holland	3,522	5,586	6,606	8,092	83,180	374,697	5,900	58,984	37,432	11,647 0	1,242 5	245,692 21
Belgium	461	5,569	1,234	848	47,172	116,395	4,250	19,780	156,534	7,832 0	1,497 10	123,377 4
France	1,891	461	356	7	85,668	12,132	2,200	10,222	61,030	1,201 5	874 10	58,474 15
Portugal Azores and Madeira	42,369	920	1,641	18,392	44,546	6,363	8,234	10,743	31,791	380 6	2,440	357,082 11
Spain and the Canaries	2,850	634	130	18,498	5,043	5,996	5,085	3,315	560	30 0	130 0	63,414 7
Siberia	3,451	58	105	896	1,043	6,164	610	1,563	49,069	726 8	562 0	31,479 1
Italy	7,564		937	70	128,293	28,226	2,310	30,269	92,451	2,075 0	1,179 16	248,982 14
Malta	1,180	12	250	60	2,378	1,241	1,800	1,100	6,220	78 0	324 0	14,146 17
Ionian Islands	117	12	24	10	990	2,418	689	725	1,643	390 0	465 0	3,487 0
Turkey and Continental Greece	2,849	82	128	8	10,860	17,041	5,222	7,160	10,280	170 0	107 0	41,984 10
Morcia and Greek Islands	62				100	847	874	246				1,368 0
East Indies and China	182,423	7	499	6	124,170	223,181	25,875	5,411	86,400	1,846 0	3,126 8	894,017 1
New Holland	2,982	9	272	38	2,418	69,706	87,675	16,801	3,406	1,877 0	2,989 5	46,002 18
Cape of Good Hope	2,837	214	566	596	6,079	40,180	18,713	3,845	6,581	361 0	743 10	34,067 3
Other parts of Africa	669		46	12	4,748	6,183	6,190	600	8,616	302 5	929 0	18,537 10
British Colonies in North America	40,303	417	392	405	59,983	618,015	324,605	105,893	39,490	22,025 2	16, 62 0	418,695 3
— West Indies	10,130	161	151	0,237	16,568	69,163	170,838	1,109	6,808	1,315 0	8,457 10	114,206 1
Foreign West Indies	9,223	32	28	259	11,870	12,384	126,680	4,728	9,422	718 0	4,849 10	29,510 4
United States of America	569,937	408	9,994	1,825	860,150	161,712	1,135,541	553,507	836,144	141,246 0	44,046 4	9,621,270 16
Brazil	26,250	22	1,690	5,701	26,017	10,917	150,688	5,609	140,370	1,985 0	8,414 6	327,746 13
Mexico and the States of South America	45,590		1,415	2,672	28,283	82,366	10,894	91,830	125,620	6,280 0	3,003 0	246,714 1
Iales of Guernsey Jersey Alderney and Man	2,803	9	17	240	4,944	67,241	10,431	18,940	732	364 6	3,174 5	42,984 17
Total	619,866	20,963	29,103	47,854	1,073,089	2,067,620	3,122,241	228,948	1,778,389	207,014 4	110,688 14	6,203,511 1

AN ACCOUNT OF THE QUANTITIES OF FOREIGN WOOL IMPORTED INTO AND OF FOREIGN AND BRITISH WOOLLEN YARNS AND OF BRITISH MANUFACTURED WOOLLEN GOODS EXPORTED FROM THE UNITED KINGDOM DURING THE YEAR 1945

COUNTRIES	British Wool Yarn Exported	Cloths of all Sorts	Wadded Cloths of all Sorts	Kilmes	Bazons of all Sorts	Stuff of all Sorts	Flannel	Blankets and Blanketing	Carpets and Carpeting	Woolens mixed with Cotton	Hosiery viz Stockings of Wool or Worsted	Goods consisting of Hosiery or other articles described in the Tariff and in all Wares	Declared Value of British Woolen Manufactures Exported from the United Kingdom
	lbs	pieces	pieces	pieces	pieces	pieces	yards	yards	yards	yards	doz. pairs	£	£
Russia	1,131,275	4,771	106	115			2,407	2,945	3,116	91,020	115	444	54,333
Sweden	6,592	41		1		24,662	1,000	2,545	3,116	30,131	115	432	31,722
Norway	1,781	63	92	223	140	8	6,578	1,409	2,173	48,654	316	1,224	21,288
Denmark	1,653	63		31		1	7,069		1,834	85	39		1,043
France	4,177	2		4		450		160	17,228	20,120		28	1,211
Germany	8,961		40		100	3,930	2,014					105	8,206
Italy													
Spain													
Portugal													
Switzerland													
Belgium													
Netherlands													
Austria													
Sweden	4,521,020	13,083	78	1,053	249	359,969	4,370	24,724	91,401	8,644,494	2,705	14,853	981,974
Norway	2,026,120	2,177		381	16,562	228,958	114,128	3,169	88,697	59,175	4,382	17,210	497,122
Denmark	3,465,824	21	66	40	62	115,747	90,150	1,229	21,301	924,316	1,774	1,784	211,665
France	413,335	1,103	193	57	47	88,370	21,219	740	33,725	1,66,577	363	2,732	1,67,110
Germany	954	12,124	16	245	1,219	25,024	22,212	906	8,793	211,663	1,340	1,968	1,26,155
Italy	64,846	1,630	30	144	361	40,624	3,983	7,983	21,830	101,129	12	1,93	112,426
Sweden	10,197	3,124	13	116	90	16,573	4,210	220	8,957	452,069	1,910	1,213	74,777
Norway	50,888	1,011		872	32	105,958	3,019	67,11	42,000	1,774,011	7,490	2,24	201,738
Denmark		8,3	5	7	8	3,747	8,729	1,101	7,943	38,782	120	314	12,073
France	39	202	4	35	10	1,410	3,244	1,000	4,284	91,984	97	222	8,211
Germany	8	16	1	1	1	1,658	1,10	52	1,560	30,000	84	122	4,711
Italy	4,090	6,187	111	12	40,678	4,153	1,114	18,087	482,422	3,142	3,264	120,885	
Sweden		15			1,666	480	2,220	15					2,827
Norway	240	138		14	801	133	170	2,644	42,248	100	617		4,318
Denmark	20	14		20					3,160				3,1
France	W. Africa and Mo. Congo	200	311		57	2,461	980	1,038	146	2,366	1,353	1,460	7,808
Germany	W. Africa and Mo. Congo		4,256	1,250	1,130	22,028	89,997	154,610	18,747	1,6,529	1,328	2,247	90,714
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Germany	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Italy	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Sweden	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
Norway	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380	2,000	59,812		82	14,613
Denmark	W. Africa and Mo. Congo		3		2	137	370	698	381	1,360		80	900
France	W. Africa and Mo. Congo		1		4	3,942	7,373	1,380					

## BRITISH Wool (Sheep and Lambs) Exported from the United Kingdom.

COUNTRIES	1881		1882		1883		1884		1885	
	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value
	lbs	£	lbs	£	lbs	£	lbs	£	lbs	£
Germany	75,060	3,707	32,394	1,815	8,428	367	1,428	39		
Holland	1 756,157	39,341	3,416,908	178,795	173,178	9 063	74,217	4,410	27 111	2,367
Belgium	439 423	23 091	736,692	38,341	3,273,458	214 230	1,289 730	105 000	3,075,266	25,735
France					1 424,208	101,058	509 136	81 391	1,291,286	131 562
United States of America	1,218 649	55,020	1 000	54	103,214	5 698	79	11	10 049	608
Other countries.	10 169	956	13 946	448	7,690	948	4,150	201	7 689	433
<b>TOTAL.</b>	<b>3 494 378</b>	<b>172,106</b>	<b>4 199 823</b>	<b>219,650</b>	<b>4,992,110</b>	<b>323,504</b>	<b>3,978,721</b>	<b>192,126</b>	<b>4,642,504</b>	<b>28 925</b>

## BRITISH Wool (Sheep and Lambs) Exported from the United Kingdom—(continued)

COUNTRIES	1886		1887		1888		1889		1890	
	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value
	lbs	£	lbs	£	lbs	£	lbs	£	lbs	£
Germany	21,853	2,084	63 168	5 037	20,994	9,238	28,221	2,235	33,405	2,250
Holland	9,361 794	189 237	1,941 765	130 923	4,363,784	317,014	1,685,896	294,744	4,108,216	279,890
Belgium	1,321 622	131,501	809 933	43 250	1 532,634	113,201	876 166	66,170	664 696	47,394
France										
United States of America	99 224	7,807	23,337	2,401	360	45	10 984	1 109	504	40
Other countries.	18,034	1,805	19 682	7,047	8,298	716	43,202	3,265	4,402	139
<b>TOTAL.</b>	<b>3,042,407</b>	<b>332,374</b>	<b>2,647,874</b>	<b>183,250</b>	<b>5,851,240</b>	<b>424,006</b>	<b>4,608,799</b>	<b>300,640</b>	<b>4,810,287</b>	<b>320 333</b>

## BRITISH Wool (Sheep and Lambs) Exported from the United Kingdom—(continued)

COUNTRIES	1841		1842		1843		1844		1845	
	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value
	lbs	£	lbs	£	lbs	£	lbs	£	lbs	£
Germany	2 514	114	5 423	274	13 600	875	413,297	933	5 273	2,100
Holland	10 3 5	65	37 523	1 405	94,715	5 473	240 750	13 293	111 848	6,128
Belgium	7 844 196	492,169	7 817 577	461 948	6,309 170	325 209	6,862,378	420 277	4 914,197	290 177
France	9 894 704	61,629	716 738	45,983	1 077 706	86,692	1 665,800	99 189	4 080,507	535 067
United States of America	8,050	783	3,282	50	88 983	2,659	140 317	1 222	9 408	543
Other countries.	10 446	267	7,305	493	4,458	143	4 093	247	5 82	619
<b>TOTAL.</b>	<b>2,471 295</b>	<b>553 620</b>	<b>8,578,021</b>	<b>300,622</b>	<b>10 1,9 639</b>	<b>420,940</b>	<b>8,947,610</b>	<b>535,134</b>	<b>9 064,448</b>	<b>556 239</b>

QUANTITIES of Wool of the Alpaca and Llama Tribe Imported into the United Kingdom in the Year 1844, and of the Quantities Re-exported during the same Period, and the Countries to which they were sent

DESCRIPTION	Quantities Re-exported	Quantities Imported
	lbs.	lbs
Imported into the United Kingdom re-exported to Belgium France	47 702 67	635 357
<b>TOTAL Quantity Re-exported</b>	<b>4, 848</b>	

AN ACCOUNT of the Quantity of Mohair (or Goat's Wool) Imported into the United Kingdom in the Year 1844, and of the Quantity Re-exported during the same Period, and the Countries to which they were sent.

DESCRIPTION	Quantities	Quantities
	Re-exported.	Imported.
	lbs	lbs
Imported into the United Kingdom		1 290 774
Re-exported to		
Germany	2 412	
Holland	99 825	
Belgium	34 40	
France	11 310	
United States of America	19 233	
Total Quantity Re-exported	97 520	

The woollen manufacture has long been one of the staples of France, and the excellent quality of French cloths has been generally acknowledged. In some branches of the manufacture the French clothiers have taken the lead, and to this day their finer woollens find a market in every quarter of the globe. Under these circumstances, there can be no doubt that the quantity of woollen cloth manufactured in France has increased with the growth of the population, and it appears from a table inserted in the recent "Enquête," published by the French government, that the quantity of these goods exported has also materially increased during the last half century. These facts are shown by the following statement of the quantity and value of wool imported, and of woollen goods exported, in the years 1787 8 9, and in each year from 1812 to 1843 —

YEARS	Wool Imported		Woollen Cloths Exported		YEARS	Wool Imported		Woollen Cloths Exported	
	Weight	Value	Weight	Value		Weight	Value	Weight	Value
	kil	frances	kil	frances		kil	frances	kil	frances
1787	7 814 068	11 321 500	21 811 200	1899	5 749 194	9 275,611	1 190 744	21 605,164	
1788	7 740 74	13 544 000	3 660 200	1820	7 214 939	12,871 938	1 029 475	27 690 158	
1789	6 850 087	1 0 1 000	25 794 060	1821	7 636,487	5 3 669	1 030 457	28,098 716	
1812	7 278 286	30 72, 885	1 761 281	28 203 193	1822	4 021 594	7 801 1	1 434 026	35,306 690
1817	7 354 452	59 303,072	2 289 37	27 330 422	1823	9 395 702	19 129 629	1 346,991	88 098 04
1814	1 85 1	7 093 627	706 843	13 11 203	1824	9 290 39	17 913 818	1 349 287	80 437 014
1815	2 431 219	5 348 792	1 326 01	3 002 92	1825	14 944 536	24 218,9 3	1 676 958	38,306,305
1816	8 0 5	8 2 0 084	2 02 378	68 607 349	1826	14 165 12	31 890,637	2 018,292	49 147 968
1817	3 112 8 11	11 015 86	1 608,012	4 809 533	1827	9 394 465	18 597 429	1 670 772	43 428 066
1818	0 4 1 221	25 11 3176	1 389 818	44 27 485	1828	14 956 776	34 177 44	2 2 7 741	63 460 160
1819	5 424 400	10 112 897	1 920 797	49 518 461	1829	15 012 180	31 267 859	2 511 458	60 068 974
1820	4 912 291	8, 0 805	1 424 137	43 383 660	1830	14,456 341	29 987 240	3,365 71	61 073 100
1821	6 8 6 661	11 110 324	1 307 746	39 750 501	1831	20 323 741	45 697 873	2 511 458	64 005 741
1822	1 117 31	15 509 342	1 161 615	40 528 119	1832	20 991 769	49 260 872	2 492 643	62 169 108
1823	5 466 15	0 918 940	1 616 201	34 039 241	1833	30 663,370	49 967 770	3,366,551	76 310 547
1824	4 409 950	7 126 925	1 141 208	30 436,512	1834				
1825	1 1 0 104	5 86 184	1 162 992	27 221 130	184				
1826	6 4 1 22	10 929 867	82 49	2 548 466	1816				
1827	981 85	11 130 222	1 024 109	2 569 146	1827				
1828	7 586 869	13 340 15	1 058 122	30 023 770					

## FLAX, AND MANUFACTURES OF FLAX

Flax—This useful fibrous material for our linen manufactures is not imported from British India. Yet from the increasing production of flax seed, it is rather surprising that the fibre itself has not been imported. At present we depend chiefly upon Russia, Belgium, and Germany. The importations into Great Britain of flax seed from British India commenced and increased as follows —

YEARS.	From India.		From all Countries.	
	bushels.	bushels.	bushels.	bushels.
1825	10	2,965,072	1841	159,332
1833	2,168	2,179,133	1842	71,784
1834	2,526	2,210,927	1843	64,924
1835	127,416	2,206,748	1844	226,060
1836	275,168	3,339,215	1845	194,878
1837	126,532	3,381,643	1846	
1839	78,372	3,136,093	1847	
1839	163,568	4,161,047	1848	
1840	20,869	3,558,070		

There is no doubt but flax may be collected in many parts of the East, and, exclusive of the so called flax of New Zealand, we believe that this raw material may hereafter be procured from Asia and the Islands of the Eastern Archipelago in considerable quantities.

The importations of flax and hemp, for which immense sums are annually paid by our manufacturers, has hitherto been chiefly from Russia, Belgium, and Germany, viz —

#### FLAX and Tow Imported into the United Kingdom.

COUNTRIES	1831	1832	1833	1834	1835	1836	1837	1838	1839	1840
	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
Russia	923,325	667,868	776,825	262,215	438,483	1,037,021	689,920	1,082,335	705,708	879,491
Denmark			1,011	2,463	1,308	2,423	785	1,700	1,571	1,094
Prussia	101,720	144,188	147,383	103,940	84,887	180,291	30,709	171,745	89,454	135,090
Germany	7,613	8,104	84,281	7,704	11,709	6,973	3,327	3,593	2,637	8,108
Holland	128,281	116,191	145,738	81,15	104,434	153,016	134,916	101,602	160,487	113,168
Belgium			86,028	35,426	72,781	119,269	118,296	153,423	109,748	89,748
France	65,324	31,812	37,147	7,504	16,192	26,119	39,557	53,493	76,607	43,295
British Settlements in Australia	16,613	15,867	7,528	4,997	7,812	1,628				
Other places	3,456	821	30	1,231	8,276	312	1,349	1,131	2,528	900
<b>TOTAL</b>	<b>1,346,443</b>	<b>1,145,109</b>	<b>1,487,168</b>	<b>1,087,258</b>	<b>1,487,258</b>	<b>2,571,116</b>	<b>1,800,665</b>	<b>1,636,376</b>	<b>1,253,791</b>	<b>1,258,248</b>
<b>Total quantities retained for home consumption in the United Kingdom</b>	<b>918,882</b>	<b>684,628</b>	<b>1,112,150</b>	<b>794,272</b>	<b>728,143</b>	<b>1,511,428</b>	<b>969,654</b>	<b>1,615,091</b>	<b>1,216,811</b>	<b>1,256,322</b>

#### FLAX and Tow Imported into the United Kingdom—(continued)

COUNTRIES	1841	1842	1843	1844	1845	1846	1847
	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.	cwts.
Russia	967,432	844,789	1,069,386	1,118,088	850,237		
Egypt			29,548	20,166	124,144		
Denmark	5,699	5,534	8,632	7,673	15,103		
Prussia	110,625	112,562	179,239	269,404	283,029		
Germany	19,599	12,218	14,879	19,282	182,550		
Holland	120,088	97,376	69,068	106,630	107,592		
Belgium	97,216	49,503	44,165	44,967	80,168		
France	29,540	17,382	3,471	7,716	11,145		
Other places	4,766	2,168	1,613	5,004	10,753		
<b>TOTAL</b>	<b>1,346,443</b>	<b>1,145,109</b>	<b>1,487,168</b>	<b>1,087,258</b>	<b>1,418,323</b>	<b>1,147,092</b>	<b>1,049,541</b>

Silesia and Flanders formerly supplied England, and even Scotland, with linen yarns, and the finest linsens and damasks, — although for a long period, linen fabrics were made in Great Britain and Ireland. About the first year of the present century the first linen mill in the United Kingdom was erected at Darlington. The West Riding of Yorkshire, and Lancashire, are the chief seats of the manufacture of linen and linoes in England. In Scotland, about 1,500,000 yards of linen are estimated to have been made as far back as the period immediately before the Union. In 1750, it increased to 7,570,000 yards, and in 1800 to about 20,000,000 yards. In 1822, to 36,268,530 yards, and since that period, although we have no exact account, the progress has been increasing.

both in spinning and weaving, especially at Dundee—See Tables hereafter In Dundee alone the quantities are estimated at above 80,000,000 yards The Irish linen trade has also greatly increased

The following table will show the quantities of linen goods which were exported from Ireland in different years, from 1800 to 1825, subsequently to which year no account has been taken at the custom houses of either England or Ireland, of the commercial intercourse between the two parts of the kingdom

YEARS	To Great Britain		To Foreign Parts		TOTAL.	YEARS	To Great Britain		To Foreign Parts		TOTAL.
	yards.	yards.	yards.	yards.	yards.		yards.	yards.	yards.	yards.	
1800	31 978 020	3 581 820	34 563 808	1819	34 097 306	2 688 855	37 541 281				
1802	33 240 943	3 856 011	37 095 854	1820	40 218 270	3 204 948	43 611 218				
1804	30 83 101	3 3 3 328	43 140 630	1821	45 19 500	4 011 630	49 331 130				
1806	25 443 280	3 888 061	39 126 241	1822	43 236 710	3 274 098	46 601 103				
1808	41 555 719	4 033 367	45 589 086	1823	48 006 091	3 169 006	51 235 597				
1810	35 584 845	4 312 735	39 897 580	1824	46 406 090	3 006 437	49 403 727				
1812	33 0 707	2 294 086	28 415 453	1825	52 336 078	2 253 887	54 611 205				
1814	30 539 443	8 463 783	43 003 226	1826		7 780 297					
1815	37 080 359	3 436 206	43 403 565	1827		4 484 566					
1816	40 230 118	3 529 311	45 29 730	1828		3 14 910					
1817	50 808 845	3 941 733	54 330 878	1829		2 886 423					
1818..	44 746 334	4 178 868	50 925 208								

It will be seen from the next statement, that a large proportion of the exports of linen from Ireland to Great Britain has been re-exported to foreign countries.

BRITISH and Irish Linen and Sailcloth Exported from the United Kingdom in each Year, from 1820 to 1833

YEARS	British Linen		Irish Linen		British Sailcloth		Irish Sailcloth	
	yards.	yards.	yards.	yards.	ells.	ells.	ells.	ells.
1820	24 066 914	12 453 419	1 226 323	18 117				
1821	28 109 785	18 408 661	1 339 104	12 163				
1822	33 702 320	18 991 989	1 269 719	10 038				
1823	34 624 012	16 768 938	1 006 715	32 329				
1824	42 879 893	17 938 195	1 023 291	60 185				
1825	33 643 065	16 023 268	1 879 506	61 104				
1826	33 019 428	10 868 407	4 448 528	85 178				
1827	35 320 756	14 022 406	2 711 329	78 013				
1828	44 555 841	11 024 003	2 967 393	89 803				
1829	43 499 268	11 024 018	1 768 053	61 356				
1830	46 232 443	13 344 269	1 922 911	82 550				
1831	50 729 732	14 738 358	2 028 464	98 185				
1832	37 347 198	0 060 347	2 189 307	81 150				
1833	61 350 430	0 561 277	3 289 777	48 033				

LINEN Exported from the United Kingdom in each Year, from 1834 to 1847

YEARS	Entered by the Yard		Thread Tapes, and Small Wares		Linen Yarn		TOTAL
	Yards.	Declared Value	Declared Value	Pounds		Declared Value	
				£	£		
1834	67 831 305	2 357 991	85 255	1 028 325	136 012	2 870 668	
1835	77 7 7 089	2 59 139	87 094	2 211 218	215 335	2 208 778	
1836	82 1 96 700	2 2 44 313	88 204	4 534 801	318 729	3 518 927	
1837	58 441 313	2 063 485	64 090	8 373 100	17 507	2 636 758	
1838	77 1 3 2 4	2 71 079	102 298	14 282 359	746 053	3 560 435	
1839	85 1 36 542	3 52 220	12 743	16 414 618	818 483	4 233 4 2	
1840	83 1 75 431	3 154 937	111 001	17 733 378	982 876	4 128 954	
1841	90 141 761	3 4 407	647 083	25 400 490	932 466	4 320 071	
1842	6 1 12 782	2 417 173	1 20 376	29 1 00 897	1 621 331	3 377 700	
1843	81 1 2 795	2 15 565	167 637	23 358 358	808 229	3 702 653	
1 44	91 281 784	3 01 669	233 191	34 574 860	1 0 0 6 6	4 073 470	
1844		2 036 370*			1 666 506	4 666 506	
1845		2 83 38 4			87 0 0	3 103 910	
1847		2 566 892*			650 207	2 819 202	

\* Including small wares.

TOTAL Declared Value of Woven Linen Manufactures of all Kinds Exported from the United Kingdom

C O U N T R I E S	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
	£	£	£	£	£	£	£	£	£	£
Russia	246	437	433	803	1,329	437	1,077	754	2,497	2,462
Sweden	57	5	20	40	5	104	48	104	46	498
Norway	1,005	363	291	959	1,050	1,607	1,470	2,493	2,336	3,759
Denmark	866	72		774	40	708	785	368	303	405
Prussia	100	20		4	20				23	865
Germany	5,269	8,435	11,507	18,483	18,823	24,425	23,310	24,077	46,190	51,667
Holland	6,488	8,144	5,240	4,598	5,240	5,673	5,900	11,430	7,617	10,864
Belgium			4,951	8,692	9,211	11,641	8,709	5,369	4,648	6,712
France	9,372	16,016	13,718	22,854	22,315	111,388	144,598	274,226	247,680	226,447
Portugal Proper	28,155	12,940	29,527	61,465	36,194	16,787	27,248	30,669	34,059	20,351
— Azores	1,592	1,726	1,868	1,743	1,141	1,488	1,355	378	523	628
— Madeira	3,469	1,669	1,125	1,594	3,333	5,014	1,669	1,111	916	931
Spain and the Balearic Islands	223,621	223,620	200,759	127,809	122,234	203,519	151,638	113,493	128,204	167,039
— Canaries	4,967	2,144	3,169	1,885	1,022	4,294	3,438	5,243	5,385	4,971
Gibraltar	21,245	26,511	23,040	23,777	17,961	27,614	21,022	90,305	172,424	214,275
Italy and the Italian Islands	19,270	13,122	16,872	23,581	34,195	46,578	23,796	20,140	76,997	62,142
Malta	2,078	2,031	7,162	2,194	1,464	1,774	2,867	5,670	6,320	4,015
Ionian Islands	392	819	906	1,215	1,040	1,440	1,768	1,470	1,608	1,078
Greece and Greek Islands				316	411	30	159	199	181	685
Turkey	761	1,296	2,238	2,169	5,224	4,821	6,630	4,959	3,223	2,013
Syria and Palestine				26	80				5	140
Egypt	175			198	145	60	416	126	133	177
Tripoli, Tunis, Algeria, and Morocco				168	145	60	30	649	66	468
Western Coast of Africa	2,698	1,654	1,640	3,094	2,611	2,928	4,275	3,262	1,549	1,549
Cape of Good Hope	12,398	6,441	7,126	9,006	18,943	20,297	13,964	26,163	16,014	14,656
Cape Verd Islands						80				79
St Helena	407	262	281	453	555	99	169	494	542	46
Ascension Island										
Eastern Coast of Africa										
Mauritius										
Isle of Bourbon	2,212	5,748	4,969	2,724	6,511	11,719	7,907	14,741	7,072	11,292
Arabia				280						
East India Company's Territories and Ceylon				289						
China	21,389	30,621	27,518	17,228	31,895	40,381	32,155	36,240	67,624	68,700
Siam				20	6,063				5,191	2,339
Sumatra, Java, & other Islands in the Indian Sea	878	2,704	2,370	6,072	1,624	1,430	1,798	4,314	7,660	15,346
Philippine Island	627	1,225		100	1,184		900		170	18,818
British Settlements in Australia	15,610	17,474	26,408	26,759	25,599	25,899	43,724	62,994	67,868	62,74
New Zealand									364	49
South Sea Islands	69	43			22					1,126
British North American Colonies	122,449	97,699	96,620	69,762	118,639	120,768	96,470	104,832	112,245	124,217
— West Indies	330,578	267,465	223,492	221,595	270,124	404,841	274,648	302,470	249,812	323,653
Hayti	171,878	126,836	29,864	87,407	118,290	61,628	22,880	87,102	84,123	26,109
Cuba and other Foreign West Indies	119,700	25,182	42,862	80,179	70,249	88,781	60,088	121,199	119,649	132,696
United States of America	1,021,696	414,196	880,820	1,047,744	1,561,826	1,687,877	564,527	941,291	1,864,088	975,088
Mexico	78,197	19,420	61,614	66,380	62,620	17,187	66,728	76,728	96,725	92,642
Guatemala			1,050	1,150	280					27
Colombia	24,705	45,522	10,263	20,214	12,620	25,278	26,143	31,223	25,013	83,860
Brazil	117,274	187,587	169,650	182,718	137,204	195,911	119,429	127,945	211,269	223,78
St. Is. of the Rio de la Plata	16,177	82,299	22,071	44,502	25,621	28,304	43,247	31,298	47,286	3,053
Chili	19,356	21,292	37,728	50,284	21,199	29,207	49,961	20,200	62,884	116,485
Peru	28,168	23,998	41,946	34,811	29,728	29,406	24,074	40,664	43,620	6,944
Isles of Guernsey Jersey Alderney and Man (foreign goods)	16,044	17,065	16,494	17,708	16,019	17,288	19,287	19,387	17,637	22,871
TOTAL	4,481,704	1,774,27	2,167,094	2,442,346	2,992,143	3,226,225	2,127,447	2,820,272	3,411,061	3,306,686



## LINEN YARN Exported from the United Kingdom

COUNTRIES	1832		1833		1834		1835		1836		1837		1838		1839		1840	
	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value	Quantities	Declared Value
	lbs	£	lbs.	£	lbs	£	lbs	£	lbs	£	lbs	£	lbs	£	lbs.	£	lbs	£
Russia									1,840	143	2,725	219	2,725	811	300	15	3,040	511
Sweden									700	60	2,035	257	300	24	1,090	80	883	62
Norway									199	6	890	62	443	62	246	17	3,223	176
Denmark									8	1			1,228	68			267	80
Germany	590	65			8,291	869	111,320	10,630	316,784	36,210	380,080	25,016	435,073	29,660	776,138	54,933	1,038,676	73,279
Holland	3,100	275	956	20	2,503	208	47,635	3,215	124,475	7,834	324,460	19,400	1,380,141	50,508	2,143,377	69,302	2,108,598	62,134
Belgium			19,969	690	41,533	2,297	31,035	2,003	38,082	3,320	588,505	26,374	1,240,592	31,681	722,430	28,742	743,112	29,077
France	70,819	6,616	867,288	63,899	1,480,269	130,561	2,384,678	198,823	4,012,141	276,942	7,016,933	401,007	11,465,680	600,806	12,239,254	644,144	13,137,96	629,533
Portugal	1,400	253	1,068	40	856	32								500	75	223	83	
Spain and Islands			630	40	5,623	185	1,436	84	151	69	334	96	4,608	200	23,251	2,383	23,610	1,000
Gibraltar									200	20					16,718	965	85,774	5,074
Italy and the Italian Islands	7,421	730	7,653	806	2,394	199	10,856	690	55,438	3,613	92,818	5,940	138,047	7,239	162,370	19,117	243,252	15,400
East India			1,690	59			2,010	130							860	25	784	50
Australia			112	80											25	2	4,454	134
USA North	1,292	70	1,248	55			1,058	85			8,000	838	40,756	1,938	22,223	816	8,821	200
America	3,080	198	2,705	176			200	10	2,011	908	3,200	170			200	15	7,285	146
British West Indies																		
United States of America	14,976	640	37,220	1,792	41,610	1,816	15,679	650	2,423	125	18,993	1,196	108,285	3,368	110,208	4,813	37,133	600
Channel Islands	1,237	28	3,390	37	258	42	2,208	166	56	10	2,440	28			1,656	76	1,776	20
Total.	110,186	8705	935,682	72,006	1,533,325	126,812	2,611,810	216,635	4,574,504	318,7	2,4,373,108	479,307	14,923,329	746,163	16,314,615	818,485	17,722,571	822,816

QUANTITIES and Value of Linen Manufactures and Yarn Exported to Foreign Countries and British Possessions in 1941 and 1945

COUNTRIES TO WHICH EXPORTED	1941					1945				
	LINEN MANUFACTURES			LINEN YARN		LINEN MANUFACTURES			LINEN YARN	
	Entered by the Yard		Thread, Tapes and Small Wares	Entered by the Yard		Entered by the Yard		Thread Tapes and Small Wares	Entered by the Yard	
	Quantity	Declared Value		Quantity	Declared Value	Quantity	Declared Value		Quantity	Declared Value
yards	£	£	lbs	£	yards	£	£	lbs	£	
Russia	74 591	2 041	509	3,531	401	12,365	671	3,180	4,239	513
Sweden	2 970	276	29	8,503	238	1,607	63	88	7 565	583
Norway	120,618	0 7 2	1 086	670	40	168,811	6 116	5,042	7 265	325
Danmark	0 035	361	19	11,900	638	11 189	294	630	21 626	941
Prussia	98, 22	1,359	7			8 853	376	126	18 040	592
Czechoslovakia	657 742	31 596	22,471	904 270	62,540	2,205,024	33 118	86,094	3 247 031	22 496
Holland	28 428	0 283	4 258	2,524 671	65 309	436,269	39 298	31 529	4 188 536	11,491
Belgium	72 374	2 270	1 808	412 650	14 020	117 078	6,412	6,385	1 033 290	30 803
France	8,223 402	281 269	923	20 833,875	806,336	2,219,082	109,410	403	9 163 186	414,350
Portugal and Islands	899 499	22 329	16			750 256	17 983	85	4,331	206
Spain and the Balearic Islands	3,554 285	16,524	245	39 121	1 908	2,411 586	90 527	1 057	2,628 098	171 297
Canaries	345,069	6 092	80	20	26	102 778	5 229	1 32	1 038	30
Gibraltar	2,224 404	192 270	787	85 420	6,399	743 697	24 826	1 122	892,031	91,272
Italy and the Italian Islands	263 224	59 221	304	253,928	10 018	1 084,247	60 159	2,537	890,048	43,625
Malta	89 300	4 522	46			148,740	7 891	103	375	15
Ionian Islands	29 787	1 590	148			12 723	580	490	8,760	100
Greece and Greek Islands	1 338	147	88			6 872	321	107	310	45
Turkey	92 049	4 068	67	108	7	439 028	14 700	482	7 652	294
Syria and Palestine	8 242	380				6,385	128			
Egypt	7 041	458				15,126	719	1		
Tripoli, Tunis, Algiers and Morocco	19 000	578				2 000	130	35		
Western Coast of Africa	66, 43	8, 78	72			47 401	1,877	242		
Cape of Good Hope	224 975	12 884	1 018			291,484	20 600	1,428		
Cape Verd Islands	1 950	89								
St Helena	1,552	96	275			1 613	571	10		
Mauritius	244 506	2,165				187 606	7,721			
East India Company's Territories and Ceylon	600 628	23 611	3 040			1 990 289	59 820	1 227	1 209	63
Namers, Java & other Islands of the Indian Seas	139 821	6 186				237 009	9,291	78		
China	231 916	8,096	120			229 941	11 973	823		
Hutchinson Settlements in Australia	971 563	40 231	1,044	103		1 074 596	68 197	1 423	620	84
New Zealand	95 264	990	1			129 370	6,187	60		
British North American Colonies	3,920,224	170 218	17 979	1 606	65	4 611 610	133,345	19,707	396	20
West Indies	8 14 430	228 405	54 1	115	8	9 038 153	229 255	3 2 6	187	6
II yti	2,224 94	54 601	56			2 496 241	60 627	463		
Foreign West Indian Colonies	3 173,265	120 153	5 177	1 500	30	10 037 946	807 578	6,073	200	17
United States of America	31 000 667	1 169,246	69 160	22,327	409	25,984,192	860 242	48 187	24 269	2,242
Texas	5 803	323				4 971	240	37		
Mexico	1,883 450	67 255	967			4 136 350	177 028	413	4 0 1	197
Cuba	67 408	3 784				2 440 504	26 498	412		
Colombia	1,044 294	24 226	135	180	5	7 989,598	299 458	3 546		
Brazil	6,073,584	219 308	8 489	2,000	140	1 095,604	34 720	1 031		
States of Rio de Plata	2,015 623	64 800	1,494			1 173 003	49 227	338		
Chili	698,450	26 469	107							
Uruguay	1,481,855	60 601	827			1,220,304	61 580	870		
Isles of Guernsey Jersey Alderney and Man	352 048	19 010	410	48	2	454 306	20 478	20		
TOTAL	90 231 761	3 200,467	147,088	25,220,290	972,456	88,401 670	830 784	208,560	22 288 725	1,060 166

STATEMENT of the Prices of Linen Yarn and of Canvasse (No 37) and of the Wages paid at Leeds for Weaving the same in each Year from 1813 to 1833 inclusive

DESCRIPTION	1813	1814	1815	1816	1817	1818	1819
Average size of an average bundle of yarn estimated in less of 300 yards per lb	11 1	11 1	11 4	11 2	11 4	11 3	11 6
Average selling price of such average bundle of yarn	28 6	27 5	27 7	21 0	19 10	21 4	18 10
Wages of weaving a piece of canvasse No. 3 361 chee wide 17 threads warp 17 weft per inch	2 8	2 8	2 10	2 8	2 6	2 8	2 8
Selling price of a piece of canvasse No 3	30 0	30 0	28 0	22 0	20 6	21 3	21 0

STATEMENT of the Prices of Linen Yarn &amp;c—(continued)

DESCRIPTION	1820	1821	1822	1823	1824	1825	1826
Average size of an average bundle of yarn estimated in less of 300 yards, per lb	11 3	12 4	12 6	12 9	17 4	21 5	18 5
Average selling price of such average bundle of yarn	17 7	16 2	16 8	15 7	13 6	14 4	12 6
Wages of weaving a piece of canvasse N 27 30 in hies wide 16 thread warp 17 w ft per inch	2 8	2 8	2 8	2 8	2 6	2 7	2 6
Selling price of a piece of canvasse No 3	23 0	20 6	20 0	21 0	13 0	19 3	18 0

STATEMENT of the Prices of Linen Yarn, &amp;c—(continued)

DESCRIPTION	1827	1828	1829	1830	1831	1832	1833
Average size of an average bundle of yarn estimated in less of 300 yards per lb	20 0	22 5	26	26 6	27 6	21 5	27 1
Average selling price of such average bundle of yarn	11 0	11 5	10 1	10 10	11 1	10 3	10 9
Wages of weaving a piece of canvasse N 27 36 inch wide 16 threads warp 17 weft per inch	2 7	1	2 0	2 6	2 0	6	2 6
Selling price of a piece of canvasse N 37	16 6	15 0	16 0	17 0	19 0	18 7	18 0

STATEMENT of the Weekly Rate of Wages paid in a Flax Spinning Mill near Leeds, in the Year 1832

NUMBER OF CHILDREN &c	Average,	NUMBER OF PERSONS &c	Average
	s d.		s d.
66 Children 10 to 11 years old	3 14	100 persons 17 years old	5 10½
179 " 11 12	7 02	80 " 18	6 6
144 " 13	3 93	58 " 19	7 4
17 " 14	4 24	48 " 20	7 9½
113 " 15	4 03	41 " 21	8 8
22 " 16	5	21 and upwards	16 7½

The above rates had been nearly stationary during the preceding twenty years

The improvements made in the operation of flax spinning in England are rendered apparent in a very important manner, by the fact that we are now large exporters of linen-yarn to Ireland, and even to France the earliest shipments to the latter country were made in 1833, and amounted to only 76,512 lbs., but the quantity rapidly increased until 1842, when it reached 22,202,292 lbs.

The following table exhibits a considerable increase in the consumption of foreign grown flax during the last ten or fifteen years, but it is probable that the

growth of the article in this country has, in the meantime, experienced some diminution

YEARS	FLAX	YEARS	FLAX	YEARS	FLAX
1820	cwt. 376 170	1820	cwt. 909 709	1837	cwt. 923,654
1821	481 692	1820	955 112	1838	1 615 505
1822	607 540	1821	918,682	1839	1 216,811
1823	554 393	1822	984 900	1840	1 256,222
1824	730 651	1823	1 119 190	1841	1,238 212
1825	1 018 837	1824	794 278	1842	1 130,312
1826	687 488	1825	742,025	1843	1 472,728
1827	696,989	1826	1 511 438	1844	1,283,328
1828	882,289				

### THREAD of Flax and Linen entered for Consumption in France

YEARS	COLOURED		WHITE		GRAND TOTAL
	From England	TOTAL	From England	TOTAL	
	kilogrammes	kilogrammes.	kilogrammes	kilogrammes	
1828	15 400	707,800	21 200	114 600	87 400
1829	2,08,000	1 184,500	63,700	200 000	1 31 600
1830	673 500	1 423,300	108 600	228,700	1 64 300
1831	1 181 500	1,822 900	112,500	213 500	2,076 400
1832	1 597,600	2 414 600	141 900	265 400	2 679 600
1833	1,867 000	2 472,500	207 300	403,000	3 2,700
1834	4 787 700	8 216,700	447 600	534 600	6,751 600
1835	8,559,300	6 076 400	632,000	631 000	6 17 400
1836	8 719 500	6 374 500	463,700	970,500	6 7,25 100
1841	8,213,600	5,030 400	771 500	855,500	8 683 300

### DECLARED Value of Apparel and Slops Exported from the United Kingdom

COUNTRIES	1831	1829	1832	1834	1835	1836	1837	1838	1839	1840	1845
	£	£	£	£	£	£	£	£	£	£	£
Russia	907	1 115	1 192	1 478	1 772	1 270	841	1 327	3,106	1,792	5,407
Sweden	169	331	318	480	529	1 8 8	8 8	1 023	1 023	509	541
Norway	205	1,210	1 549	2 078	3,739	5,880	1 518	2 795	1 900	2,303	5,978
Denmark	320	378	461	383	481	603	220	260	159	337	241
Prussia	235	324	137	65	151	243	137	98	153	183	286
Germany	7 830	10 068	11 043	9 953	13,885	11 410	12,355	14 123	22 300	22 550	17,478
Holland	12,165	12 036	10 541	13,279	13,894	18 073	12 100	13 901	14 601	11,500	23,008
Belgium		3 846	4 305	5 161	5 143	4 5 9	6,888	6 298	8 073	8 073	7,553
France	5,748	11,587	17 087	10 236	12,672	17 857	16 744	17 288	32,050	33,000	23 839
Portugal Proper	2 505	3 830	13 675	15 802	32,028	20,415	4 674	3 489	4 664	4 420	3,038
— Azores	1 383	7,609	1 106	1 706	1 771	5,363	1 309	305	430	1 075	1 770
— Madeira	9 741	1 476	2,103	2 3 1	2,055	8 085	1 319	1 019	2 039	1 506	1 546
Spain	6,123	2,033	2 868	1 404	9 342	20 022	4 729	1 346	2,048	1 410	3,448
— Canaries	433	484	266	397	503	360	379	383	264	854	1 266
Gibraltar	8 870	8,359	12,901	4,836	6,023	5,292	0 308	13,856	15,359	12,238	16 018
Italy and the Italian Islands	6,535	5,640	7,218	6 777	7 258	6,896	4 462	8 878	9 437	9 270	10 969
Malta	1 808	1 715	1 903	2 154	3 084	2 24	1 691	2 014	3 556	3 556	3 200
Ionian Islands	1 980	2 358	2,921	2 048	2 151	2,300	2 210	1 470	3 043	2,305	3,076
Turkey	3,643	3 792	3,074	4 348	3 960	5 407	3 918	3,510	5 342	4 620	70,228
Egypt	563	100	741	355	703	1 111	988	566	1 488	1 401	20,000
Western Coast of Africa	10 146	7 966	8,330	6 044	6,036	10 761	7 470	8 889	11 065	8 740	16 209
Cape of Good Hope	14,271	10 320	21 1 4	23 365	21 063	42,410	44 438	40 920	40 471	45 269	113 799
St Helena	3 668	1 146	2 983	4 997	7 373	2 819	1 904	2 081	2 266	1 471	3 574
Mauritius	4 423	4 202	2 462	6,093	9 191	12,506	17 443	24 608	11 425	17,360	18 809
East Indies & Ceylon	44 000	67 431	28,776	2 610	41 571	69 073	60 099	61 099	77 790	90 344	109 313
Java &c	168	645	763	631	1 403	1 031	623	404	473	1 001	3,045
Cin				671	1 633	8 015	1 246	1 584	1 584	1 388	7 103
British Australia	77 323	70 315	87 660	129 616	117 000	149,711	173,512	232 270	273,432	270 170	274,583
New Zealand &c	332	4 6	115		614			70	2 448	6 301	
British North America	168 150	101 888	153,000	128 127	170 684	221 274	174,703	156 335	260 845	250 131	286,260
British West Indies	168 313	160 133	196 737	202 231	233,726	320 192	269 129	256,085	226,036	231 904	257 878
Haiti	5,021	3 424	1 126	915	1 190	1 792	383	412	823	662	576
Cuba and Foreign West Indies	9 130	11 017	12,650	12 979	17,920	12,648	13,069	10 834	10,369	8,912	9 733
United States of America	158 322	81 472	127 911	106,209	228 551	234 295	75 208	164 151	160,010	109 311	140 730
Mexico	5 111	817	1 240	1 199	4 074	3 706	3 188	588	1 469	2,213	2 076
Columbia	1 484	1,328	1 377	2,271	1 928	724	323	929	274	656	2 300
Brazil	5,964	8,933	14 759	16,434	30,008	28 439	13,066	11 576	13,967	15,021	18 261
States of the Rio de la Plata	4,241	5,067	3,082	3 096	3 960	6 044	9 111	1 545	3,197	4 981	6 396
Chili	3 120	2 309	2 964	3,330	3 210	3 860	5 225	4 111	7 461	5 144	
Peru	6 038	2 198	6,009	3,611	3,112	4 642	1 517	1 573	3,358	10,759	
Channel Islands	13,211	18,180	11 176	18,313	11 426	16,380	16,616	16,661	18 603	10,500	30 474
Other places			8 120	370	610	611	449	989	345	773	1 248
TOTAL.	790 293	713,246	780 148	783,226	1 014,838	953,375	280 921	1,007,271	1 328,427	1 208,087	1 092,260

The proportions in which persons of different ages were employed in each woven branch of industry, in 1835 and 1839, were as follows —

1835

A G E S	Cotton	Woolen	Flax	Silk
Eight to twelve years	per cent 27	per cent. 57	per cent 37	per cent. 30 0
Twelve to thirteen years	9 3	12 0	17 2	8 7
Thirteen to eighteen years	29 8	29 8	31 1	20 8
Above eighteen years	37 2	51 4	46 0	39 6
	100 0	100 0	100 0	100 0

1839

A G E S	Cotton.	Woolen.	Flax	Silk.
Under nine years	per cent 4 75	per cent 12 25	per cent 4 05	per cent. 3 30
Between nine and thirteen years	37 94	25 59	44 00	22 60
Between thirteen and eighteen years	37 73	48 06	31 55	34 19
Above eighteen years				40 41
	100 0	100 0	100 0	100 0

S E X E S	Cotton		Woolen		Flax		Silk	
	1835	1839	1835	1839	1835	1839	1835	1839
	per cent	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Males	45 7	43 3	53 5	48 3	31 2	29 6	32 2	31 7
Females	54 3	56 5	47 3	51 5	68 8	70 4	67 8	68 3
	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0

The returns of 1835, in regard to the mechanical power used in factories, did not allow of precise calculations with respect to the proportions in which that power was used as compared with the number of persons employed. The following abstract gives only the information from the returns, both in 1835 and 1839

1835

DESCRIPTION OF FACTORIES	Number of Factories the Power of which is given	Number of			Horse-power of Steam Engines and Water Wheels			Number of Horses lost or actually Employed	Number of Persons Employed in Factories the Power of which is given
		Steam Engines	Water Wheels	TOTAL	Steam	Water	TOTAL		
Cotton	967	1000	479	1479	27 433	6 575	34 008	30 128	172 065
Woolen	740	338	402	990	10 360	4 735	15 095	13 836	41 585
Flax	00	53	5	110	1 765	928	2 694	2 284	14 310
Silk	131	118	41	139	1 343	833	1 676	1 460	18,390
TOTAL	1948	1701	1037	2739	40 841	12 138	52 979	47 698	230 350

1639

DESCRIPTION OF FACTORIES	Number of Factories the Power of which is given	Number of			Horse power of Steam Engines and Water Wheels.			Number of Horses Power actually Employed *	Number of Persons Employed in the Factories the Power of which is given
		Steam Engines	Water Wheels.	TOTAL.	Steam	Water	TOTAL.		
		No	No	No	No	No	No		
Cotton	1819	1041	574	2315	45,897	12,977	59,874	96,735	21,173
Woolen	1738	686	1907	2025	17,598	16,406	34,004	22,964	85,416
Flax	292	217	240	565	7,412	3,078	11,050	9,985	13,487
Silk	208	207	109	316	2,457	222	3,279	1,077	34,316
<b>Total</b>	<b>4217</b>	<b>3051</b>	<b>2420</b>	<b>5981</b>	<b>74,084</b>	<b>27,983</b>	<b>102,077</b>	<b>133,911</b>	<b>4,33,636</b>

From these figures it appears that the number of persons employed for each mechanical horse power at each period, was—

FACTORIES	1815	1839
In Cotton factories	number	number
Woolen	56	44
Flax	29 nearly	32 nearly
Silk	194	114

The larger proportion in the silk mills arises from the greater number of young persons employed

The progress of our textile manufactures during the period of four years will be apparent from the following statement of the increase or decrease in 1839, as compared with 1835, of the number of factories at or out of work, and the number of persons employed in each division of the United Kingdom —

FACTORIES	ENGLAND		WALES		SCOTLAND		IRELAND		UNITED KINGDOM	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
	No	No	No	No	No	No	No	No	No	No
<b>Mills at work—</b>										
Wool	213		03		22		5		425	
Cotton	6 0				33		4		855	
Silk	22								20	
Flax	17				13	1	15		45	
<b>Mills empty—</b>										
Wool	40		11		5		7		63	
Cotton	69				6		1		52	
Silk		2						1		3
Flax	13				7		4		23	
<b>PERSONS EMPLOYED</b>										
<b>Wool &amp;c—</b>										
Under thirteen years		2,149	74			478		91		2,644
Thirteen to eighteen years	11,573		712		1,130		40		13,378	
Above eighteen years	3,468		205		112		122		4,844	
<b>TOTAL</b>	<b>13,292</b>		<b>691</b>		<b>1,511</b>		<b>292</b>		<b>13,162</b>	
<b>Cotton—</b>										
Under thirteen years		12,72		11	3,811	2834		285		16,441
Thirteen to eighteen years	2,098		41		1,11	1,04		209		23,00
Above eighteen years	2,770				2,231			826		3,251
<b>TOTAL</b>	<b>36,086</b>									
<b>Silk—</b>										
Under thirteen years		311				42		2		355
Thirteen to eighteen years	2,255				50			25		2,240
Above eighteen years	1,654				79			26		1,711
<b>TOTAL</b>	<b>3,508</b>				<b>77</b>			<b>49</b>		<b>3,606</b>
<b>Flax—</b>										
Under thirteen years		161				1,078		230		3,440
Thirteen to eighteen years	1,131				1,180			2159		7,113
Above eighteen years	800				1,380			6,829		6,829
<b>TOTAL</b>	<b>380</b>				<b>4,468</b>			<b>5,326</b>		<b>10,284</b>

STATEMENT of the Number and Power of Flax Factories in Operation in different Parts of the United Kingdom, with the Number and Ages of Persons therein in the Year 1839

MILLS	ENGLAND		WALES		SCOTLAND		IRELAND		UNITED KINGDOM		
	number	power	number	power	number	power	number	power	number	power	
Mills at work	169				183				40		392
Mills empty	12								4		16
	Engines.	Horse Power	Engines	Horse Power	Engines	Horse Power	Engines	Horse Power	Engines	Horse Power	
Steam power	13	2134			160	3,350	32	928	315	7,419	
Water power	112	1,131			81	1,465	37	1,038	240	3,608	
PERSONS EMPLOYED	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	
	number	number	number	number	number	number	number	number	number	number	
Under 10 years	130	98			29	16	9	159	152	123	
10 to 11 "	206	168			29	36	3	14	231	214	
11 12 "	348	141			30	37	3	28	291	200	
12 13 "	226	205			27	38	13	41	21	290	
13 14 "	774	9 0			878	1,210	350	535	2,002	2,731	
14 15 "	651	1,103			635	1,017	441	748	1,745	2,465	
15 16 "	443	1,095			391	1,049	369	627	1,102	2,150	
15 17 "	356	914			316	920	179	648	653	2,483	
17 18 "	133	902			143	903	158	352	454	2,357	
18 19 "	145	549			117	1,141	181	744	433	2,514	
19 20 "	99	863			80	1,015	160	634	275	2,338	
20 21 "	114	674			104	942	97	518	413	3,123	
21 and upwards	1,620	3,161			2,017	4,834	968	1,241	4,974	6,236	
TOTAL	5,378	11,485			4,728	13,169	2,781	6,330	12,897	20,394	
TOTAL males and females	16,878				17,907		9,011		43,401		

STATEMENT of the Number of Flax Factories in Operation in the different Parts of the United Kingdom, with the Number and Ages of Persons employed therein in 1835

COUNTIES &c	Number of Factories at Work		Between Eight and Twelve Years		Between Twelve and Fifteen Years		Between Fifteen and Eighteen Years		Above Eighteen Years		TOTAL Number of Persons employed					
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	TOTAL.			
														No.	No.	No.
ENGLAND																
Comberland	7		1		8		4		80		20		116	25	214	320
Derb	2	5	4	7	3	14	16	5	81	31	81	83	162	83	84	
Dorset	4		5	5	8	8	34	17	72	20	30	112	142	142	142	
Dorset	11	11	14	25	61	202	78	278	78	278	176	854	710	854	710	
Derham	6	2	60	40	47	12	90	208	150	402	150	402	601	402	601	
Dorset	3		3	5	4	33	4	43	11	80	11	80	91	11	80	91
Kent	1				39	13	7	11	36	26	26	69	69	26	69	
Leicester	16	68	60	253	260	366	811	460	68	1,185	48	1,809	3,024	48	1,809	3,024
Northumberland	2			0	23		68	25	108			154	154		154	
Nottingham	1			7	1		1		8			8	8		8	
Oxford	1	3			2		10		1			4	12		16	
Salop	1	24	16	45	37	154	173	119	110	314	3	317	636	3	636	
Suffolk	13	17	13	13	9	42	168	37	124	169	364	537	537	364	537	
Suffolk	4	16	14	11	7	38	19	34	75	113	113	113	294	113	294	
Wilt	1				2		34		6			22	22		22	
Wilt	64	323	303	532	735	1,145	2,319	1,303	9,419	3,663	5,752	9,419	9,419	5,752	9,419	
Wilt	4	13	7		10		21		38			406	406		406	
TOTAL, England	133	487	434	1,048	1,173	1,920	4,192	2,351	4,379	6,015	10,178	10,178	10,178	6,015	10,178	10,178
Wales																
Scotland	170	104	175	609	518	1,190	7,064	1,550	5,460	3,399	10,017	13,499	13,499	3,399	10,017	13,499
Ireland	25	1	15	125	199	250	1,308	463	1,171	988	2,603	3,081	3,081	2,603	3,081	3,081
TOTAL United Kingdom	328	592	624	1,882	2,090	4,110	12,574	4,911	11,410	10,395	22,888	22,888	22,888	10,395	22,888	22,888

RETURN of the Total Number of Persons employed in Cotton, Woollen, Worsted, Flax, and Silk Factories, respectively, in England, Scotland, and Ireland, and the Total Number in the United Kingdom showing the respective Numbers of Males and Females, the Number employed under Thirteen Years of Age, the Number between Thirteen and Eighteen Years, and the Number above Eighteen Years of Age, also specifying the Numbers in each County

## ENGLISH FACTORIES

COUNTIES	COTTON									
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age.		TOTAL			
	Males	Females	Males	Females	Males	Females	Males.	Females.	Males and Females.	
	number	number	number	number	number	number	number	number	number	
Chester	1 697	649	4,610	5,513	13,141	14 050	17 554	30,598	38 194	
Corwall			1	43	4	56	6	59	194	
Cumberland	34	26	221	448	628	537	877	1 425	2,202	
Derby	611	568	1 470	2 163	2 760	4 079	4 741	6,821	11 622	
Flint	11	11	26	35	56	52	57	104	131	
Gloucester			401	300	544	785	445	1 085	1 430	
Lancaster	7 821	4 635	24 461	33 183	57 548	71 903	60,170	111 803	201 673	
Leicester	4		36	92	178	275	219	367	485	
Middlesex			116	67	121	101	240	246	437	
Norfolk			11	26	42	63	52	82	125	
Nottingham	7	4	136	418	530	891	328	1,243	1 630	
Stafford	41	44	108	395	495	730	614	1 189	1 603	
Surrey			64	41	19	28	32	60	84	
Warwick			13	41	19	28	32	60	104	
York	1 207	937	2,340	3,101	4 344	4 820	7,291	8,849	16,730	
<b>Total for England</b>	<b>10 733</b>	<b>6814</b>	<b>33,814</b>	<b>47 044</b>	<b>78 733</b>	<b>88,560</b>	<b>153,320</b>	<b>163,708</b>	<b>377 093</b>	

## ENGLISH FACTORIES—(continued)

COUNTIES	WORSTED									
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL			
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females.	
	number	number	number	number	number	number	number	number	number	
Shrewsbury		1	10	25	14	52	24	86	110	
Derham	41	23	23	148	19	266	122	456	539	
Lancaster	23	24	40	64	98	161	179	340	340	
Leicester	3	4	247	251	487	759	736	1 084	1 207	
Middlesex			15	1	9	2	24	3	27	
Norfolk	17	16	83	292	105	831	206	1 138	1 345	
Northampton.	4	10	7	19	34	18	45	67	78	
Nottingham			3	23	15	14	18	47	65	
Stafford				2	16	16	16	18	34	
Surrey		7	3	16	8	22	11	45	66	
York.	3362	3794	3985	9,808	6362	19,928	14,709	33,590	47,299	
<b>Total for England</b>	<b>3453</b>	<b>3684</b>	<b>4452</b>	<b>10 767</b>	<b>7228</b>	<b>22,018</b>	<b>14,133</b>	<b>36,664</b>	<b>51 737</b>	



## CULTIVATION AND SUPPLY OF RAW MATERIALS

587

## ENGLISH FACTORIES—(continued)

COUNTIES	WOOLLEN								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
	number	number	number	number	number	number	number	number	number
Brecon			25	19	37	9	38	19	57
Caerleon	5	1	13	5	7	8	25	16	41
Cardiff	5		38	25	31	13	74	37	111
Carmarthen	14	5	16	24	45	4	75	33	108
Ceredigion	23	16	34	23	111	42	195	111	306
Denbigh	16	1	33	29	160	44	211	74	285
Derby	3	1	3	1	19	3	5	5	31
Devon	41	39	95	98	292	67	348	1,134	1,482
Dorset			30	19	23	30	43	40	83
Essex			2	1	1	1	3	2	5
Gloucester	6	6	30	67	71	34	107	112	219
Hereford	28	12	869	820	1,563	1,98	2,451	2,317	5,268
Hampshire			2	1	2	4	1	4	5
Hants			7	7	4	7	6	7	13
Leicester	707	64	931	108	2,943	1,645	4,601	3,370	7,971
Lincoln	1	1	27	46	61	60	80	107	196
Lancashire			7	2	4	3	11	6	17
Merioneth	2	5	30	17	43	26	75	30	125
Middlesex	2		34		166	26	252	28	320
Monmouth	3	1	13	28	47	19	63	44	111
Montgomery	32	15	238	125	252	83	324	221	545
Northampton	10	3	7	10	29	16	46	59	75
Northumberland	2		1	1	7	7	10	8	18
Oxford	2	3	78	72	164	68	184	143	327
Rutland			1	1	2	1	3	4	7
Salop	14	4	35	15	14	63	237	82	489
Somerset	26	14	383	292	713	28	1,124	1,656	2,180
Surrey			49	2	88	8	123	10	138
Wiltshire	51	64	53	180	120	60	224	58	386
Worcester	7	1	679	448	1,253	877	1,039	1,245	2,584
Worcestershire			41	144	214	24	505	418	623
York	3,222	2,228	6,26	5,346	14,079	6,546	24,607	14,130	39,737
Total for England	4,106	3,008	10,024	8,253	23,135	12,401	37,956	24,722	62,678

Some worsted mills are included under this head the returns from which do not distinguish between woollen and worsted

## ENGLISH FACTORIES—(continued)

COUNTIES	FLAX								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
	number	number	number	number	number	number	number	number	number
Cumberland	36	23	56	113	151	309	243	443	686
Derby			9	29	4	26	22	28	50
Devon			9	5	11	33	18	38	51
Dorset			48	111	88	342	136	453	589
Down	10	7	11	32	43	124	64	161	225
Gloucester			7	37	4	47	11	84	94
Hants			3	47	7	37	10	84	94
Leicester			54	39	28	28	82	58	140
Lincoln	72	55	319	262	354	1,173	745	1,796	3,541
Middlesex	1		20	14	82	63	112	77	190
Northumberland			60	153	78	102	138	257	395
Salop	58	51	99	192	200	236	338	389	411
Somerset	1		55	137	39	227	119	374	493
Surrey	2		33	21	54	47	69	36	127
Wiltshire	26	23	35	75	126	214	167	314	601
Worcester			9		10		19		19
York	626	579	1,528	2,056	2,538	4,451	4,716	8,126	12,843
Total for England	836	723	2,385	4,517	3,837	7,518	7,058	12,789	19,847

## ENGLISH FACTORIES—(continued)

COUNTIES	S I L K.									T O T A L.		
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age.		T O T A L.					
	Males	Females	Males	Females	Males	Females	Males.	Females	Males and Females.			
	number	number	number	number	number	number	number	number	number			
Bucks	32	30	29	34	4	39	5	72	132			
Chester	147	1080	1333	93	9	4	4	108	14,109			
Derby	255	575	504	1084	737	1,469	1,426	3,648	5,144			
Deron	24	31	21	108	25	196	70	289	399			
Dorset	26	109	18	136	97	129	63	3	432			
Essex	67	166	80	503	253	1,149	409	1,414	2,187			
Gloucester	9	106	16	208	2	156	35	454	497			
Hants	9	43	3	99	12	96	26	-37	262			
Hereford	156	118	104	127	180	167	490	422	912			
Kent												
Leicester	329	674	610	2070	1009	3,045	2,578	5,782	7,807			
Middlesex	3	3	23	22	77	143	116	1	294			
Northfolk	3	78	28	429	150	1,155	181	1,657	1,828			
Nottingham	94	150	66	219	56	44	216	613	829			
Oxford	7	6	6	6	2	19	9	38	44			
Shropshire	119	251	61	505	76	634	356	1,372	1,648			
Stafford	78	259	137	443	557	359	598	1,490	1,822			
Staffordshire	55	167	42	296	11	143	128	426	506			
Warwick	28	69	18	159	310	629	461	849	1,261			
Wiltshire	46	117	23	186	22	213	90	516	606			
Worcester	74	117	6	128	7	168	7	413	506			
York	50	107	102	293	497	329	709	759	1,498			
Total for England	9251	4777	3603	9310	7218	15,821	18,772	99,918	42,690			

## TOTALS IN ALL FACTORIES IN ENGLAND

COUNTIES	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		T O T A L.		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
		number	number	number	number	number	number	number	number
Beecon							69	19	81
Bucks	39	39	29	34	4	39	72	132	204
Cardigan	5	4	12	5	7	8	25	16	41
Carnarvon	5		35	23	21	18	74	27	111
Chester	147	1,080	1,333	93	9	4	108	1,414	2,187
Cornwall	1		43	4	56	5	98	104	202
Cumberland	83	65	338	618	84	1,308	1,380	1,991	3,296
Denbigh	18	1	52	29	150	44	231	74	325
Derby	255	575	504	1,084	737	1,469	1,426	3,648	5,144
Deron	14	1	128	108	292	97	455	1,462	2,043
Dorset	26	109	18	136	128	111	244	976	1,180
Drifham	55	3	69	194	132	102	216	613	829
Essex	67	166	80	503	253	1,149	412	1,414	2,187
Fife	11	11	28	25	58	88	134	231	365
Glasgow	6	8	30	66	71	38	107	118	219
Gloucester	37	116	1,014	1,355	1,839	2,578	3,880	4,420	7,420
Hants	9	43	10	147	21	156	40	422	462
Hereford							6	7	13
Herefordshire	156	118	104	127	180	167	490	422	912
Kent							64	32	96
Leicester	329	674	26,251	28,020	6,523	77,953	97,456	172,7	229,792
Leicester	7	3	310	429	716	1,094	1,012	1,528	2,371
Lincoln							11	6	17
Merioneth	2	0	7	3	4	3	7	3	10
Midlothes	6	0	235	134	465	396	706	531	1,238
Monmouth	3	1	13	28	47	19	63	48	111
Northampton	89	13	258	153	252	65	322	411	742
Norfolk	30	92	129	760	327	2,056	686	2,967	3,303
Northampton	4	4	10	7	19	24	18	45	62
Northumberland							613	148	765
Notingham	101	154	205	679	321	1,079	627	1,935	2,530
Oxford	7	6	7	6	2	19	9	38	44
Radnor							1	3	4
Salop	67	53	135	117	337	299	359	471	1,020
Shropshire	148	366	103	965	848	2,592	1,416	2,814	4,700
Stafford	119	263	31	629	78	13,5	1,283	9,427	3,698
Staffordshire	35	107	47	206	11	185	169	498	666
Surrey	1	0	129	89	184	50	306	408	714
Warwick	23	22	131	100	379	637	413	599	1,009
Westmoreland	7	17	86	105	216	294	411	5	697
Wiltshire	33	118	210	624	1,265	1,990	2,618	1,813	3,402
Worcester	74	117	47	128	7	168	7	413	506
York	50	107	102	293	497	329	709	759	1,498
Total	22,169	19,726	51,878	50,791	128,301	157,708	297,248	257,794	435,024

## SCOTCH FACTORIES

COUNTIES	C O T T O N								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
	number	number	number	number	number	number	number	number	number
Aberdeen	31	27	116	56	201	1 698	408	1 763	2,113
Ayr	85	40	01	376	92	811	343	698	1 044
Bute			105	145	115	250	320	433	655
Clackmannan									
Dumfries	11	7	113	157	146	344	270	508	778
Kirkcudbright	2	3	24	41	33	80	61	124	183
Leith	77	55	1363	4991	3701	10,809	5143	13,566	20,479
Leithgow	10	6	18	28	28	34	50	56	114
Peebles									
Perth	5	72	157	293	185	575	427	930	1 387
Renfrew	114	89	895	1986	1153	3 971	2168	5,440	7 504
Stirling	4	18	42	114	30	275	126	407	333
TOTAL	379	366	3046	8681	5796	16 658	9221	25,203	35 116

## SCOTCH FACTORIES—(continued)

COUNTIES	W O R S T E D								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
	number	number	number	number	number	number	number	number	number
Perth									
Renfrew			4	49	57	28	61	77	138
TOTAL for Scotland			4	53	58	29	63	81	143

## SCOTCH FACTORIES—(continued)

COUNTIES	W O O L L E N								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
	number	number	number	number	number	number	number	number	number
Aberdeen			146	104	304	501	455	8 3	1 110
Ayr	11	5	86	188	174	143	191	315	526
Barnack			7	13	13	14	20	27	47
Clackmannan			247	275	686	532	1233	766	2019
Dumfries		2	3	42	38	43	61	87	148
Fife	7	4	8	23	37	9	48	86	76
Edinburgh			4	10	30	6	24	16	60
Fife			5	5	8	8	13	13	26
Fife			1	1	5	5	5	3	9
Glasgow			11	6	24	14	39	20	59
Kilmarnock			3	3	1	1	4	4	4
Kilmarnock			5	5	6	4	11	9	20
Kilmarnock			7	8	11	8	19	10	28
Leith	17	16	230	111	607	354	909	581	1490
Leith			4	4	1	1	5	5	5
Perth	2		17	16	23	3	37	19	56
Perth			30	38	52	21	122	59	181
Perth			7	12	17	10	23	14	45
Perth			8	1	130	218	438	453	1635
Perth	22	21	293	223	575	242	790	363	1111
Perth	1		161	134	614	283	761	405	1276
Perth			7	3	20	3	27	6	33
TOTAL for Scotland	60	39	171	1784	4023	2410	6415	4272	10 637

## SCOTCH FACTORIES—(continued)

COUNTIES	F L A X								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females.
number	number	number	number	number	number	number	number	number	number
Aberdeen	11	47	368	531	671	1,739	1091	2,671	3,759
Ayr	4	14	46	35	128	278	186	373	368
Edinburgh	13	15	37	77	74	119	133	211	234
Flig	1	13	188	686	522	1,754	711	2,453	3,164
Forfar	78	196	1069	1959	1622	6,008	2763	8,123	10,985
Kincardine			8	11	10	33	13	58	75
Leamark			120	314	187	372	307	636	943
Perth	1	7	92	100	167	630	269	787	1,047
Renfrew	8	4	20	141	73	279	101	424	525
<b>Total for Scotland</b>	<b>109</b>	<b>296</b>	<b>1973</b>	<b>4253</b>	<b>2463</b>	<b>11,524</b>	<b>5547</b>	<b>18,783</b>	<b>21,330</b>

## SCOTCH FACTORIES—(continued)

COUNTIES	S I L K								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females.
number	number	number	number	number	number	number	number	number	number
Leamark	16	33	47	265	92	271	154	569	733
Renfrew	2	26	10	65	49	136	67	227	294
<b>Total for Scotland</b>	<b>17</b>	<b>69</b>	<b>63</b>	<b>330</b>	<b>141</b>	<b>407</b>	<b>221</b>	<b>796</b>	<b>1017</b>

## SCOTLAND—All four Factories

COUNTIES	TOTAL OF ALL FACTORIES								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females.
number	number	number	number	number	number	number	number	number	number
Aberdeen	64	60	660	1,748	1,237	3,391	1,905	5,229	7,184
Ayr	0	78	263	597	354	91	727	1,400	2,133
Burwick			7	13	13	14	20	37	47
Bute			108	145	115	270	270	435	705
Clackmannan			247	264	966	523	1,233	786	2,019
Dumbarton	11	7	113	37	126	344	276	508	778
Dumfries		2	23	43	28	43	61	47	146
Edinburgh	10	10	42	100	104	158	163	247	418
Flig			4	10	20	6	31	16	60
Fife	1	12	192	601	530	1,769	724	2,496	3,195
Forfar	72	196	1076	1,560	1,627	6,616	2,769	8,166	10,935
Inverness			16	6	24	14	20	20	51
Kincardine			6	11	11	32	12	63	80
Kincross			5	5	6	4	11	9	23
Kirkcubright	3	6	41	40	40	88	80	143	233
Leamark	104	144	1792	5,781	4,647	11,417	6,513	17,373	23,886
Limthgow	10	6	22	28	29	24	61	58	119
Peebles	2	2	13	16	22	3	27	19	50
Perth	76	69	287	481	445	1,257	619	1,740	2,350
Renfrew	124	119	241	2,253	1,340	3,524	2,414	6,196	8,610
Roxburgh	8	7	136	218	438	244	582	453	1,035
Stirling	28	11	188	123	375	243	790	383	1,173
Stirling	5	18	308	340	694	538	967	962	1,800
Wigton			7	8	22	7	27	6	38
<b>TOTAL</b>	<b>523</b>	<b>779</b>	<b>6288</b>	<b>12,010</b>	<b>12,483</b>	<b>39,948</b>	<b>20,406</b>	<b>46,777</b>	<b>67,143</b>

## IRISH FACTORIES

COUNTIES	COTTON								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
number	number	number	number	number	number	number	number	number	number
Antrim			185	228	176	479	311	707	1,018
Armagh			80	53	22	51	64	111	195
Down	2	5	150	131	169	299	310	609	799
Dublin			24	64	60	239	64	303	387
Kildare			29	38	23	22	42	69	103
Leath			23	27	34	71	67	98	165
Meath									
Monaghan									
Queen's County			1	12	9	19	10	31	41
Tipperary									
Tyrone									
Waterford			169	204	354	605	514	709	1,293
Wexford	2	6	13	12	26	26	41	34	95
Wicklow			26	13	51	68	77	80	157
TOTAL Cotton for Ireland	4	11	999	773	954	1,849	1,550	2,638	4,183
TOTAL Cotton for Scotland	379	266	3,045	2,651	5,796	14,568	9,221	25,895	35,116
TOTAL for England	10,732	6,814	33,814	47,944	76,743	74,030	123,220	153,798	277,028
GRAND TOTAL	11,106	7,191	37,452	57,378	85,533	117,667	134,091	182,226	316,327

## IRISH FACTORIES—(continued)

COUNTIES	WORSTED								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
number	number	number	number	number	number	number	number	number	number
Dublin			21	39	40	61	61	100	161
Queen's County				7	40	30	40	37	77
TOTAL Worsted for Ireland			21	46	80	91	101	137	238
TOTAL Worsted for Scotland			4	32	58	39	62	81	143
TOTAL Worsted for England	3,453	2,684	4,452	10,707	7,236	32,013	15,133	36,604	51,797
GRAND TOTAL	3,453	3,884	4,477	10,865	7,365	32,123	15,296	36,882	52,176

## IRISH FACTORIES—(continued)

COUNTIES	WOOLLEN								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		TOTAL		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
number	number	number	number	number	number	number	number	number	number
Cork			24	44	45	63	69	112	181
Dublin	2	1	41	35	191	132	234	168	402
Kildare				11	13	9	13	19	28
Kilkenny				2	26	114	65	116	211
Queen's County			3	30	31	11	34	71	105
Tipperary			6	2	7	1	13	3	16
Waterford			5	13	70	45	73	60	133
TOTAL Woollen for Ireland	2	1	79	144	452	404	583	549	1,082
TOTAL Woollen for Scotland	80	58	1,212	1,734	4,052	2,410	5,415	4,222	9,637
TOTAL Woollen for England	4,206	3,068	10,621	8,233	23,135	12,401	37,965	24,722	62,687
GRAND TOTAL	4,208	3,12	12,015	10,151	27,610	16,215	43,013	29,493	73,406

## IRISH FACTORIES—(continued)

COUNTRIES	F L A X								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		T O T A L		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
number	number	number	number	number	number	number	number	number	number
Antrim	9	27	1290	2,101	1,076	4,143	295	6,271	9,246
Armagh			89	155	195	336	164	413	577
Downgal			26	36	38	62	54	129	174
Down			535	892	887	1,324	1,363	2,687	3,449
Dublin			49	82	51	119	100	197	297
Kildare			76	112	60	149	144	302	406
Londonderry			48	103	63	115	105	279	384
Louth			141	222	157	400	259	622	990
Meath			14	54	31	74	45	128	173
Monaghan			28	107	50	133	78	206	339
Tyrone			55	89	174	466	269	855	1,194
TOTAL for Ireland	9	27	2433	4,284	3,128	7,931	5,205	11,498	17,988
TOTAL for Scotland	109	206	1,973	4,223	3,465	11,294	5,471	15,989	21,350
TOTAL for England	856	732	3,883	4,517	5,337	7,513	7,036	13,189	19,840
GRAND TOTAL	964	1,075	6,816	13,005	10,430	25,978	18,200	40,958	65,259

## IRELAND—All four Factories.

COUNTRIES	T O T A L O F A L L F A C T O R I E S								
	Under Thirteen Years of Age		Between Thirteen and Eighteen Years of Age		Above Eighteen Years of Age		T O T A L		
	Males	Females	Males	Females	Males	Females	Males	Females	Males and Females
number	number	number	number	number	number	number	number	number	number
Antrim	9	27	1,535	2,320	1,152	4,672	3,986	6,978	10,964
Armagh	2	5	89	180	167	339	248	584	772
Cork			24	42	45	89	69	112	191
Downgal			26	36	38	62	54	118	174
Down			535	1,002	996	1,563	1,628	2,564	4,248
Dublin	2	1	135	220	312	347	475	768	1,247
Kildare			98	161	109	189	200	341	541
Kilkenny			2	2	53	114	28	110	211
Londonderry			48	103	63	116	105	279	384
Louth			174	242	191	471	261	720	1,185
Meath			14	54	31	74	45	128	173
Monaghan			28	107	50	133	78	206	339
Queen's County			4	46	80	80	84	139	223
Tipperary			6	3	7	1	13	3	16
Ty on			35	349	174	460	269	855	1,124
Waterford			159	219	484	559	589	769	1,368
Wexford	2	0	18	12	20	36	41	84	95
Wicklow			25	12	61	68	77	80	157
TOTAL for Ireland	15	39	3,150	5,198	4,614	9,279	7,779	14,812	22,591
TOTAL for Scotland	386	779	6,298	13,520	13,430	30,248	20,486	46,777	67,948
TOTAL for England	22,169	19,295	34,676	40,791	48,001	127,208	107,948	237,794	453,042
GRAND TOTAL	22,189	19,313	41,426	51,029	65,428	167,231	138,213	312,384	543,676

NOTE.—A considerable number of factories being at present unoccupied or only partially at work in consequence of the depressed state of trade the total number of those now employed in the factories of the United Kingdom is of course not so great as in ordinary times of prosperous trade.

The number of factories from which returns to the application for the numbers employed have not been received is not considerable.

Factory Office April 16, 1847



TOTAL declared Value of all British and Irish Woven Manufactures Exported from the United Kingdom during the following Years

YEARS	Cotton	Cotton Yarn	Woolens and Yarn	Linen	Linen Yarn	Silk	TOTAL of Four Fabrics	Tot. £ of other Articles	Tot. £ all Manufactures
	£	£	£	£	£	£	£	£	£
1810	13 074,737	2 698,448	7 811,345	1,43,567			480,592	2 471,249	16 178,606
1811	14 178,059	2,014,182	7 163,472	1,103,232			408,258	28,467,818	15,969,394
1816	16 643,579	2,385,205	6 141,193	1,949,815			499,175	25,470,187	40,118,120
1819	12,888,833	2,516,83	5 986,407	1,351,215			376,59	2 004,66	13,221,21
1820	13 813,469	2,436,613	5 363,439	1,633,004			374,114	24,461,60	11,834,668
1821	13 786,057	2,307,832	6 461,567	1,281,469			373,936	24,511,10	16,334,323
1822	14 534,653	2,700,437	6 488,923	1,194,772			381,435	29,297,420	10,330,99
1823	13,731,415	2 628,547	5 634,137	995,374			350,680	21,457,953	11,817,387
1824	15 240,006	3 133,406	6 031,234	2 44 410			442,882	37,270,058	10,361,503
1825	15 034,188	3 007,729	6 153,715	2,130,703			296,677	30,802,524	11,968,40
1826	10 528,237	3 491,258	4 963,808	1 489 847			168,153	20 554,723	11,202,101
1827	13 937,625	3,445,568	5 277,861	1 695,180			236,092	24,014,382	11 484 607
1828	13,546,138	3,594,945	5 190,226	2,090,033			355,753	24 16,997	11 957 231
1829	13 429,944	3 9 4 059	4 650 859	1,665 531			267 102	4 804 415	11,314,212
1830	15 63 713	4 132 528	4 847 206	1 965 266			519 812	11 297 657	37 697 293
1831	13 282 947	3 9 4 689	3 389 811	2 461 704			578 874	23 66 325	11 15,413
1832	12,673,660	4,117,956	5 479 786	1 783 432			589 995	23 199 690	10 911,908
1833	12 763,377	4 704 094	6 340 795	2 167 024	72 006		737 404	38 603,361	11,287,832
1834	18 305,81	5 311 815	5 775 413	2 443 346	362,260		609 410	29 68 186	11 309 400
1835	16 441 716	4 766,289	7 145,602	2 622 143	316,635		672 021	33,307,715	13 671 943
1836	18,511 669	6 449 336	7 956 053	3 436,345	319 772		917 822	36,458,090	16,876,372
1837	13 640 181	6 355,498	4 986 979	2 137 445	470 307		568 672	29 651 173	15 371,911
1838	16,715 837	7 431 659	6 119 061	2 893,919	745,103		777 269	34 671 045	15,389,945
1839	17 692,182	8 838 193	6 634 965	3 414,967	818,483		906 118	36 296 910	16 916 070
1840	17 867 310	7 101 308	5 780,610	3 305,088	822,876		792 046	35,371 040	16,635,399
1841	14 225,319	7 862 569	6,361 928	3,241 535	972 660		758 694	35,384 431	16,740 269
1842	13,077 168	7 114 658	6 425,918	3 245 740	1 025 581		920 182	31 644 365	16 916 618
1843	16,254 000	7 198,771	7,333 211	2,803 223	869,829		667 032	35,336 186	16 923 262
1844	18,816 704	6 988 384	3 163 052	3 024,800	1,050 676		736,453	39 780,232	18,803,560
1845	19 150 026	6 984 233	8 750 542	3 686,370	1,060,598		760 445		
1846	17 729 960	7 882 372	7 944 596	2,835,284	875 555		819 114		
1847	17,683 293	6,887 207	7 904 698	2,968,807	650,307		978 114		
1848									
1849									
1850									

## MINERALS OF INDIA

*Metals*—The minerals of India have been scarcely explored. Coal, no doubt, abounds in several parts, and what is called the great coal field, on each side the river Damoda, for sixty to seventy miles, and probably much more in length, and of an ascertained breadth of more than twelve miles, has been usefully worked, where three or four pits have been worked. Coal and iron are found in conjunction in the Burdwar and Sylhet districts of Bengal, and very rich Nodular ore, yielding about twenty-five per cent pure metal, abounds in Bhaugulpore. Formerly the mines in this district were extensively worked. Coal has been found in Nerbudda. Nitre constitutes an important article of export from Bengal Salt, which is a government monopoly, is produced at Cuttack and other places, chiefly in the west of India. Diamonds are found in Bundelcund, &c Lead mines are numerous. Copper mines are worked. But such is the wretched state of mining, that metals are scarcely worth alluding to among the usefully-worked products of India. India, in fact, receives the coal and iron used chiefly from Great Britain. India, however, supplies the United Kingdom with the greater part of the saltpetre or nitre used, Chili and Peru supplying nearly all the remainder. The quantity of saltpetre imported from British India\* in 1845

\* See preceding Tables of Exports from the United Kingdom in the various articles of metal, machinery, &c, exported to India.



amounted to 307,703 barrels, from Peru, 134,098 barrels, from Chili, 38,745 barrels, all other places, 6075 barrels, total, 486,621 barrels. Iron and hardware are extensively exported to India, and, considering the low prices at which all articles of metal are now made in Great Britain, and the extraordinary increase in the quantity of iron produced in Great Britain, we cannot believe that industry can be profitably directed to mining or working the metals of British India, any more than to prosecute manufactures in India. (See Commercial Tables, pages 148, *et seq.*, and Tables of Iron and Metals hereafter)

*Agricultural Products* are evidently those for which India must be for a long period adapted, and we introduced the foregoing tables to illustrate how extensive a demand the raw materials of India may find in the four great woven fabrics of the United Kingdom, *viz.*, cotton wool, sheep's wool, silk, and flax, all which, with industry and careful preparation, may be profitably supplied from India. We now pass on to such in a statement from the other principal articles of export, *viz.*, sugar, indigo, opium, &c.

1 *Sugar* (Arabic, *sukhr*, Latin, *saccharum*, Sanscrit, *sakara* Spanish, *azucar*, Italian, *zucchero*, German, *zucker*, French, *sucre*) is distinguished by the several qualities of brown, or muscavado, clayed, refined, and candy.

The first account we have of sugar is about 320 years before Christ, when it is mentioned by Throphrastus as honey extracted from reeds. Strabo says Nearchus found reeds in India yielding honey without bees. Pliny describes it as a medicinal honey collected from canes. It was probably sugar candy obtained from China. Europe owes its knowledge of sugar to the Moors, who cultivated the cane in Spain, as soon as they became established in that country. It was rather extensively cultivated in Spain, and in the fifteenth century the cane was carried to and cultivated in Madeira and the Canary Islands, from which it is said to have been early transplanted to America. The cane, however, was indigenous to the tropical countries of America, the natives, however, did not know its use. The first English sugar plantation was in Barbadoes in 1627, from whence sugar was exported in 1646, and thirty years afterwards 400 vessels, of about 150 tons, were employed in the Barbadoes trade, chiefly in exporting sugar. No less than 65,000 tons annually were exported from St Domingo before 1790. The progressive consumption of sugar in the United Kingdom will be found in tabular forms hereafter. In 1700, it did not exceed 10,000 tons, it was then consequently a rare article of luxury. In 1754, it increased to about 54,000 tons. In 1790, to about 80,000 tons. Until 1820, the importation of sugar from India was trifling. Since then the quantity (see Tables, pages 134, and hereafter) has increased rapidly. It is evident that the soil and climate is eminently adapted for the cultivation of the cane.

We shall, however, defer further remarks on the cultivation of sugar, until we class the whole under the one general head of the sugar producing countries of the world.

**Coffee**—Hindustan, Ceylon, Java, and other eastern countries are eminently adapted for the production of coffee. For imports and exports, &c, see General Tables hereafter

**Indigo**—In the history of cultivation we are not aware that any thing is more remarkable than the rapid growth of indigo in British India (See Tabular Statements, page 138)

**Pepper**—See Tables of Exports, &c, pages 138, et seq., and Tables hereafter

**Rum**—See Tables, page 138, and hereafter

**Opium**—This drug constitutes a government monopoly in India. (See Revenue Tables)

STATEMENT of the Opium Exported from Calcutta to China, to the Ports in the Indian Archipelago, and to Europe, from 1752 to 1834

YEARS.	Chests to China.	Chests to the Eastern Ports.	Chests to the Western Ports.	TOTAL Chests	YEARS	Chests to China.	Chests to the Eastern Ports.	Chests to the Western Ports.	TOTAL Chests.
	number	number	number	number		number	number	number	number
1752-56	1070	4102	10	5179	1815-16	2728	1180	5	3913
1756-57	2387	4247		2644	1816-17	3276	917	38	4211
1757-58	183	1514	4	303	1817-18	2011	94		3798
1759-59	1718	1624		3342	1818-19	3375	724	5	4099
1759-1800	1897	2050		3926	1819-20	1741	1315		3691
1800-1801	2328	1539		4798	1820-21	3291	1556		5147
1801-2	1744	1723	25	3497	1821-22	1516	955		2591
1802-3	2023	1835		3098	1822-23	329	803		4190
1803-4	2116	1692		3053	1823-24	3928	1298		5290
1804-5	2223	1691	10	3336	1824-25	3256	1710		7675
1805-6	2131	1520		3657	1825-26	4627	530		8195
1806-7	2507	1777		4384	1826-27	5851	707		6568
1807-8	3084	1171		4255	1827-28	7541	262		7605
1808-9	2523	1416		4639	1828-29	4993	1651		6644
1809-10	3074	1179		4246	1829-30	7463	2243		9778
1810-11	3521	1317		4969	1830-31	6072			7069
1811-12	2769	1891	38	4638	1831-32	6513			7347
1812-13	2518	1807		4622	1832-33	7998			2408
1813-14	2718	1659		4773	1833-34	7568			2918
1814-15	2950	868	5	3673					

The eastern ports include all those east between the Cape of Good Hope and Cape Horn), and the western, those west of the former on the Atlantic

QUANTITY of Opium\* annually Exported from India to China for Eighteen Years

YEARS	Number of Chests Imported		Average Price per Chest in Spanish Dollars		Sale Value of each Kind in Spanish Dollars		TOTAL Number of Chests Imported	TOTAL Value of Importation in Spanish Dollars
	Pina and Benares.	Malwa	Pina and Benares.	Malwa	Pina and Benares.	Malwa		
1810	2110	606	1 00	873	3,129,000	29,700	3210	3,657,000
1817	2520	1 0	1265	612	3,200,400	703,000	3,380	3,904,250
1818	7030	1 530	3900	725	3,630,000	1,109,250	4,510	4,139,250
1819	2070	1 630	2225	31,5	3,657,500	1,915,250	4,600	5,283,000
1820	3090	1 20	1000	1 15	3,795,000	3,605,000	4,720	8,480,000
1821	2110	1 716	207	1223	6,038,250	2,276,150	4 8 8	8,314,000
18 2	18 3	4,900	1852	1890	2,819,500	3,100,000	4 822	7,588,000
1823	2210	4 178	1600	926	4,646,000	3,854,100	4 082	8,515,100
1824	2655	4,000	11,5	720	3,119,625	4 00,000	8 755	7,619,625
1825	3112	0 179	13	753	2,141,35	4,464,190	9 921	7,008,203
1826	3021	6,369	3098	942	3,068,365	5,131,580	9 967	8,610,065
1827	5131	4 401	208	1204	5,115,155	4,299,200	9 382	10,120,715
1828	6053	7 701	940	968	5,604,235	6,224,860	13 132	11,823,115
1829	7443	6,877	860	868	6,143,377	6,50,580	14 000	12,027,137
1830	6059	12,100	670	262	3,754,204	7,119,9	14 620	12,904,63
1831	5,230	8,265		868	5,082,010	5,918,75	14 223	11,510,264
1832	8477	15,103		868	6,510,050	8,781,700	23,706	15,381,750
1833	8032	11,713		868	6 0 9 634	7,116,971	21 1 0	14,000,603

The quantity of opium shipped from Calcutta in 1765-6, was 1870 chests, and in 1829-30 7443 che to the total quantity of opium exported from Calcutta during the former year was 2381 chests and during the latter 9028 chests, a grand total exported during the whole thirty five years was 165,273 chests, with the average rate at which it sold, 1200 dollars a chest would give a trade in this stimulating drug of nearly 500,000,000 Spanish dollars!

**QUANTITY of Malwa Opium Exported from Bombay and Daman to China, from 1821 to 1834**

YEARS	Chests from Bombay		Total Amount of Chests		Average Bombay Rupees		YEARS	Chests from Daman		Total Amount of Chests		Average Bombay Rupees	
	number	number	number	number	number	number		number	number	number	number		
1821	1600	678	2278	201	1888	2,520	3280	709	1764				
1822	1600	2255	3855	2007	1849	3,502	4527	8,609	1646				
1823	1500	1535	3035	1764	1830	3,720	9136	12,846	1,028				
1824	1600	2083	3683	1988	1831	4,700	4713	2,332	1450				
1825	2500	1193	3693	971	1832	11,000	3067	14,067	1200				
1826	2500	2053	4553	1817	1833			11,715					
1827	2500	1524	4024	1883	1834	6,985	2093	11,678					

**QUANTITY and Value of Opium Exported from Calcutta**

COUNTRIES TO WHICH EXPORTED	1834-35				1835-36				1836-37				
	Opium (Behar)		Opium (Benares)		Opium (Behar)		Opium (Benares)		Opium (Behar)		Opium (Benares)		
	chests	rupees	chests	rupees	chests	rupees	chests	rupees	chests	rupees	chests	rupees	
Coast of Somatra													
Java	10	9,850	20	19,700	9,698	115,84,134	3,333	37,07,335	37	74,170	9,030	97,60,918	
Penang and Eastward	262	2,78,074	1,250	12,07,378	119	1,46,875	1,506	16,00,078					
China	74,374	68,143	1,987	1,10,371	53	68,000	49	48,073	50	75,825	2,119,875		
Europe	2	1,870	36	24,863			96	71,108	8,184	1,91,53,492	2,300	31,17,523	
Maldive Islands											3	2,410	
<b>Total</b>	<b>7,767</b>	<b>70,37,337</b>	<b>3,283</b>	<b>31,67,633</b>	<b>9,96</b>	<b>1,17,76,000</b>	<b>4,940</b>	<b>53,23,971</b>	<b>8,991</b>	<b>1,23,42,988</b>	<b>4,443</b>	<b>60,61,126</b>	

**QUANTITY and Value of Opium Exported from Calcutta—(continued)**

COUNTRIES TO WHICH EXPORTED	1837-38				1838-39			
	Opium (Behar)		Opium (Benares)		Opium (Behar)		Opium (Benares)	
	chests	rupees	chests	rupees	chests	rupees	chests	rupees
Penang & Eastward	75	91,000	9,940	25,06,433	276	1,74,440	2,07	21,01,806
Java	20	34,500	80	57,450	35	43,180	134	96,070
China	11,907	1,25,37,400	4,135	45,37,817	11,167	95,66,688	3,812	24,37,390
Europe								
Maldive Islands	13	10,075	86	64,305	6	5,353	44	25,030
Cape of Good Hope			1	81				
<b>Total</b>	<b>12,965</b>	<b>1,36,63,638</b>	<b>7,242</b>	<b>74,66,282</b>	<b>1,524</b>	<b>97,89,803</b>	<b>6,037</b>	<b>48,10,805</b>

**STATEMENT of the Quantity and Value of Opium from Calcutta during the following Years**

COUNTRIES TO WHICH EXPORTED	1839-40				1840-41				1841-42			
	Opium (Behar)		Opium (Benares)		Opium (Behar)		Opium (Benares)		Opium (Behar)		Opium (Benares)	
	chests	rupees	chests	rupees	chests	rupees	chests	rupees	chests	rupees	chests	rupees
United Kingdom	160	41,668	1	195	25	17,297	20	12,800	21	14,432		
N. I. A. seris	3	3,105	6	1,366								
Ceylon	7	2,530							2	1,880		
Penang & Eastward	6,507	33,02,915	6,405	32,40,713	6,228	30,59,230	5,196	35,53,130	4,933	34,69,593	3938	27,09,844
Java	20	115	30	13,750								
Manilla	538	3,64,000	1,0	1,02,725	1	600	45	31,273	10	7,900	45	34,425
China	8,472	13,95,17	263	1,28,648	4,682	32,37,524	228	6,09,300	9,082	68,66,108	1,670	12,03,027
Europe	31	1,20,835	64	19,640	2	1,485	79	46,915	24	16,133	1,0	81,000
Mauritius	2	1,170	3	303					3	1,070	1	630
<b>Total</b>	<b>12,466</b>	<b>54,78,498</b>	<b>6,041</b>	<b>25,16,343</b>	<b>11,145</b>	<b>74,11,339</b>	<b>6,265</b>	<b>30,53,620</b>	<b>13,965</b>	<b>1,03,80,925</b>	<b>3774</b>	<b>41,16,800</b>

STATEMENT of the Value of Opium Exported from Bombay

COUNTRIES TO WHICH EXPORTED	1824-35	1835-36	1836-37	1837-38	1838-39	1839-40	1840-41	1841-42
	Opium.	Opium	Opium	Opium	Opium	Opium	Opium	Opium
Ceylon	rupees	rupees	rupees	rupees	rupees	rupees	rupees	rupees
China	97,82 01	2,14 899	2 40 33 (71)	1 00 77 565	158 47 400	1 93,000	87,36 847	1 03 72,515
Penang and Eastward	1 58 950	1,33,98 701	2 16 650	2,03 800		30 78 150	26,80,277	9 33 340
Goa				800	1 000			1 920
Cutch and Schinde.,					1 41 900			770
Persea Gulf						10 45 400	17,500	
Manilla								
<b>TOTAL</b>	99,35 965	1 36,13 741	243,40,821	1 12,41,365	1,30,00 300	42,96 550	1 14,35 274	1 12,78,850
Bengal							4,000	
Coast of Coromandel		5 500						
Malabar and Canara	3,150			760	8,560	2,325		670
<b>TOTAL value</b>	99,38 115	136,18 741	2 42 40,821	1 12 42,325	1,39 98 700	42,98,875	1 14 39 214	1 12,79 490
<b>Quantities</b>			chest	chest	chest	chest	chest	chest
			21,073	10 627	17 545	5,202	15,702	16 346
						lbs		
						70		

*Salt*—The salt monopoly in India has been both unsound in principle and the cause of suffering on the part of those who required this most essential of all condiments. But the very great reduction made during late years in the price of salt by the Company, renders the monopoly itself less burdensome than in France, Austria, and even in Prussia—still, the monopoly is, as such, highly objectionable, and ought to be abolished. If revenue be absolutely necessary, let it be a duty of customs if imported, and of excise when made in India. But we would prefer that neither should be levied. The following abstract of official Tables will serve to illustrate the profits of this monopoly —

STATEMENT of the Quantity of Salt Sold and cleared from the Government Golahs in Bengal, distinguishing that Imported and Sold by Government from the Government Manufacture, from 1835-36 to 1844-45, inclusive

YEARS	Sold and Cleared	Imported and Sold	TOTAL.
1835-36	bazar maunds.	bazar maunds	bazar maunds
1836-37	33 11 043	4 32 500	43 55,543
1837-38	36,10 619	4 40 000	40,50 649
1838-39	34 14,307	8 67 447	42 21 354
1839-40	30 90,107	10 08 000	47 58 277
1840-41	30 25 051	7,63 78	47 00 079
1841-42	33 58 798	9 76,534	43 74 332
1842-43	The returns furnished for these years do not distinguish salt imported on account of government manufacture from the government manufacture		46 20 183
1843-44			43 13,259
1844-45			43 63,218
			45,41 046

**An Account of the Gross and Nett Revenue of the Bengal Salt Monopoly, specifying the Charges of Manufacture, and of Collection of each Year, for ten Years**

Y E A R S	Amount realized by the Sale of Salt at Bengal.	Cost and Charges of Salt Manufactured and Purchased				Nett Revenue from the Sale of Salt exclusive of Payments to the French and Danish Governments under Convention	Amount of Payments at Bengal to the French and Danish Governments referred to in preceding Column	Nett Revenue at Bengal from the Sale of Salt	Customs Collection				TOTAL Nett Revenue at Bengal from Sale of Salt and Customs Duties on Salt	Amount
		Advances to Manufacture.	Cost of Salt purchased	Charges of Establishments and various Expenses connected with the Provision and Sale of Salt	TOTAL Cost and Charges				Customs Duty on Salt Imported into Bengal	Proportion of the Charges of Establishment of the Collectorate of Calcutta, estimated to attach to the Imports of Salt	Nett Customs Duty			
1835-36	Co s Rs 176,00 385	Co s Rs 21,14,343	Co s Rs 6,54,596	Co s Rs 16,59,174	Co s Rs 47,15,113	Co s Rs 129,35,862	Co s Rs 4,28,667	Co s Rs 124,97,215	Co s Rs 9,11,468	Co s Rs 51,709	Co s Rs 8,59,669	Co s Rs 10,24,638	Co s Rs 1,23,56,974	£ 1,252,216
1836-37	1,26,03,680	33,90,051	6,54,946	16,41,553	47,15,113	129,35,862	4,28,667	124,97,215	9,11,468	51,709	8,59,669	10,24,638	1,23,56,974	1,252,216
1837-38	1,73,03,856	22,73,607	3,61,686	18,45,807	48,41,240	1,24,20,610	4,28,677	1,19,81,943	10,30,040	1,50,406	9,04,44	1,28,91,677	1,204,597	
1838-39	2,11,59,773	14,90,049	2,48,201	17,51,013	34,18,403	1,80,93,970	4,46,667	1,70,47,203	6,44,998	86,838	5,63,760	1,82,11,063	1,707,267	
1839-40	1,88,02,160	17,41,632	1,92,861	16,22,854	35,56,77	1,33,05,393	4,52,77	1,48,59,726	13,24,451	1,28,937	12,96,413	1,00,20,149	1,805,843	
1840-41	1,59,86,977	20,75,627	1,26,410	17,53,770	33,91,185	1,58,75,442	4,38,667	1,47,96,775	17,12,888	1,41,876	15,71,227	1,63,7,385	1,854,526	
1841-42	1,94,51,922	23,68,762	8,43,277	18,08,378	47,56,387	1,84,91,05	4,06,667	1,48,28,034	18,45,119	1,53,637	16,01,402	1,37,19,566	1,473,709	
1842-43	1,67,63,043	24,64,638	6,10,151	1,94,140	41,33,234	1,42,10,029	4,38,000	1,33,00,009	26,51,240	2,11,730	24,29,810	1,61,91,419	1,817,983	
1843-44	1,84,76,471	24,04,925	10,13,551	18,07,810	31,56,46	1,31,07,745	4,66,000	1,26,94,785	28,80,375	1,53,461	25,41,894	1,53,75,679	1,441,845	
1844-45	1,88,72,934	25,4,846	8,26,404	19,13,811	50,83,131	1,23,73,533	4,58,990	1,33,21,503	27,14,868	1,14,308	25,29,980	1,66,01,013	1,48,632	

**SALT Imported into Bengal, distinguishing the Countries from which Imported, from 1835-36, to the latest Accounts received**

YEARS	UNITED KINGDOM		FRANCE		COAST OF COROMAN DEL AND MALABAR		CEYLON &c		ARABIAN AND PERSIAN GULFS		MAURITIUS		TOTAL	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
1835-36	basar mds 1 023	rupees 4 109			basar mds 2 63 272	rupees 10 53 088							basar mds 2 84 857	rupees 11 59 428
1836-37	10 069	42 763			3 05 094	13 14 379							3 84 930	15 08,027
1837-38	3 407	14 468	12 597	55 242	1 76 287	7 60 693	9 919	42,116	1 93,705	4 40,744	6,103	24 426	3 17 190	13 47,761
1838-39	2 205	5,371	0 414	48 069	72 459	3 07,351			1 20 094	6 12,550	2,748	11 679	2 07 520	6,81 960
1839-40	2 616	11 118	20 450	86,913	5 0 250	8,80 812			2 09 353	8 83 560			4,36 669	18 64 343
1840-41	2 087	8 679	14 258	60,743	3 24 021	13 77 387			2,31 764	9 92 499	13	55	3 74 348	24 40 536
1841-42	84	337	93 8 0	3 98 947	3 05,347	19 01 715	26 523	11 720	1 06,459	7 92 091	1 468	6 249	6 12,291	6 08 662
1842-43	10	41	80 182	3,40 774	5 58 633	23,41,080	34,830	148 113	2 12 704	9 03,093	13,902	56,669	83 551	37,80 050
1843-44	19	6 381	44 591	1,50 830	5 51 428	33 43 576	32 591	96 012	3,42 360	14 5 640	4,912	30 877	9 67 011	41 02 400
1844-45	792	3 216	8,458	34 118	5 19 122	91 4,020	41 197	142,915	4,03 728	16 90 231	4 714	20 142	1 76 646	40 47,642
1845-46	5,02,816		Also maunds 30 353 (Foreign Europe) and maunds 10 35,044 (British), and maunds 1 347 (For. gn Asia and Africa)										TOTAL maunds 12 87 186 value not ascertainable	
1846-47	Of this year only ten months had expired up to the latest advices from Bengal viz. 1st of May 1846, to the 28th of February 1847 No particulars of the detail													
* N.B.—During the corresponding period of 1845-46, the importations were 12,10 996														
TOTAL maunds 12 11,866 * value not ascertainable														

STATEMENT, showing the ordinary Cost and Charges, &c, per 100 Maunds of Bengal Salt, from 1248 S S to 1250 S S, or Three Years, as per Adjustment for 1842—43, and Accounts for 1843—44 and 1844—45

DESCRIPTION	Nett Quantity of Salt sold and adjusted	Cost thereof paid to Molun gee, including Surruff &c	Total in cluding all Cost and Charges of Salt & tribu- ments			Nett Sale Proceeds	Nett Sale Proceeds per 100 Maunds.	Nett Profit, and Salt sold and ad- justed	Profit per 100 Maunds
			Co s Rs	Co s Rs	Co s Rs				
Hidgelles	Maunds 10 03, 33	Co s Rs 8,13 616	Co s Rs 11 75 893	Co s Rs Dec 01 707	Co s Rs 74 88,301	Co s Rs Dec 293 253	Co s Rs 63,12 506	Co s Rs Dec 331 596	
Yumook	19 56,712	5,35 098	8 97 988	78 418	43,79 338	409 766	35,41 342	331 356	
Twenty four Pargan- nahs including Jessore	15,71 213	12,96,739	17 83,948	106 745	70 03,492	428 655	32,79 514	315 910	
Chittagong	21 21 617	13 61 098	17 28 469	81 482	86,34,726	409 792	69 65,717	328 328	
TOTAL	07 65 278	40 27 251	55 30 290	81 686	2,76,25,820	408 840	2 20,99 049	826 656	
Arzooan salt at Chita- gong	5,31 780	4 15 100	4 23,414	79 623	21,74 136	408 841	17 50,722	229 229	
Madras permit salt at Sulkea	10 92,597	7 75,807	6,38,948	76 733	42,35 348	387 520	23,96,500	319 777	

STATEMENT, showing the ordinary Cost and Charges, &c, per 100 Maunds of Salt of the Cuttack Provinces, stored in the Golahs at Sulkea, from 1248 S S to 1250 S S, or Three Years, as per Adjustment for 1842—43, and Accounts for 1843—44 and 1844—45

DESCRIPTION	Nett Quantity sold and adjusted	Cost thereof paid to Molun gee, in cluding Surruff &c	TOTAL Cost and Charges.	TOTAL Cost and Charges per average 100 Maunds	Nett Sale Proceeds	Nett Sale Proceeds per 100 Maunds.	Nett Profit on Salt sold and adjusted	Nett Profit on Salt sold average per 100 Maunds
Cuttack salt at Sulkea	Maunds 7 13 429	Co s Rs 473,261	Co s Rs 7 10 125	Co s Rs Dec 69 349	Co s Rs 31 85 227	Co s Rs Dec 435 289	Co s Rs 23,95 169	Co s Rs Dec 289 696
Baisore salt at Sulkea	8 44 020	1 57 9 0	4, 4 125	57 061	23,29 065	429 876	19 21 230	352 615
Koondah salt at Sulkea	2,33 089	1 04 979	2,28,491	68 009	10,30 408	442 159	8,92 177	314 130
TOTAL	14 91 187	3 76,216	14 12,644	94 743	65,21,506	438 013	51,18,796	343 570

## COMMERCIAL AND FINANCIAL LEGISLATION OF BRITISH INDIA

A LARGE revenue is certainly necessary to the existence and power of the East India Company within the regions now under their authority. But a careful examination of the financial system of India will convince even its supporters that it is not free from oppressive severity in character and practice, and, in many respects, unsound in principle, both commercially and fiscally. That it must be reformed is evident, and commercially several reforms have been made especially with regard to the abolition of the transit duties, and the diminution made in the price at which salt is now sold under its monopoly by the servants of the Company.

We cannot under the present head enter into the mass of details in which the taxation of India is involved, and we can only suggest what appears to us indispensable with regard to increasing the quantity and value of our exportable products, and generally the commerce of India. We would therefore recommend,—

*First*—One general system of internal taxation for all India

*Second*—The abolition of all monopolies

*Third*—One general system of customs' duties, abolishing all export duties, except on opium, upon which an export duty may very fairly be levied to replace the revenue now derived from the monopoly

*Fourth*—In framing a tariff of import duties, that the duties should be imposed solely for revenue, and without reference to the origin of the article taxed, or to the ship in which imported, and that the commerce between one presidency or district of India and another should be as free as between one county in England and another

*Fifth*—That immediately and proportionately to this general system of finance, which ought to extend from the foot of the Himalaya Mountains to Cape Comorin, it is indispensable for the prosperity of India that the disorders and misrule which prevail in the territories of the Nizam and other native princes should be terminated, and that there is no possibility of good government in these countries until the sovereignty is assumed by British authority upon equitably arranged agreements with those native princes

We have already given tabular statements of the revenue and expenditure of India. The following are abstracts of the existing customs' regulations, and the tariffs of the respective presidencies —

*By Act No. XII of the Right Honourable the Governor General of India in Council, on the 30th of May 1846*

I. It is enacted, that from the 1st of June next, such parts of Regulations IX and X 1810, Regulation XX 1822, and of any other regulations of the Bengal presidency,

as prescribe *the levy of transit or inland customs duties or of town duties*, and likewise the schedules of duties and provisions of any kind contained in these or any other regulations for fixing the amount of duty to be levied upon goods imported into or exported from the said presidency by sea, shall be repealed *provided, however, that nothing herein contained shall be construed to prevent the levy of duties at the rates now in force at the custom houses and chokies established on the line of the Jumna, or on any frontier line upon goods crossing that line for import into or export from the territory of the East India Company by land, nor to affect the regulations in force for imposing and levying duties on salt, the produce of Western and Central India*

II That duties of customs shall be levied on goods imported by sea into Calcutta, or into any other place within the provinces of Bengal and Orissa, according to the rates specified in Schedule A annexed to this act, and with the exceptions specified therein, and the said schedule, with the notes attached thereto, shall be taken to be a part of this act

III That duties of customs shall be levied upon country goods exported by sea from any port of Bengal or Orissa, according to the rates specified in Schedule B annexed to this act, with the exceptions therein specified, and the said schedule, with the notes attached thereto, shall also be taken to be a part of this act

IV That no goods or articles whatsoever, entered in either of the said schedules as liable to duty, shall be exempted from the payment of such duty or of any part thereof, except under special order from the Governor of Bengal, provided, however, that it shall and may be lawful for the collector of customs, or other officer in charge of a custom-house, to pass free of duty, as heretofore, any baggage in actual use at his discretion, and in case of any person applying to have goods passed as such, the collector acting under the orders of the Board of Customs, Salt, and Opium, shall determine whether they be baggage in actual use, or goods subject to duty under the rules of this Act

V That the rules and regulations now established for the levy of duties of customs on goods imported into or exported from Calcutta and other ports of the Presidency of Fort William in Bengal, shall continue to be in force, and shall be observed and applied for the levy of the import and export duties imposed by this Act, unless repealed or altered, or repugnant to the provisions thereof

VI That it shall be lawful for the Governor of the Presidency of Fort William in Bengal, by an order printed in the *Calcutta Gazette*, to fix a place in any river or port in Bengal or Orissa, beyond which place it shall not be lawful for any inward bound vessel, save and except such dhonies and country craft as are here referred to in Section XXII of this Act, to pass until the master or commander shall have delivered to the pilot on board, for the purpose of being forwarded by the public dawk or other wise, as may be ordered by the Board of Customs Salt, and Opium, a manifest made out in the form prescribed And it is hereby enacted that if the manifest so delivered by the master and commander shall not contain a full and true specification of all the goods imported in the vessel, the master or person in charge thereof shall be liable to a fine of 1000 rupees and any goods or packages that may be found on board in excess of the manifest so delivered, or differing in quality or kind, or in marks and numbers from the specification contained therein shall be liable to be seized and confiscated, or to be charged with such increased duties as may be determined by the Board of Customs, Salt, and Opium and if any inward bound vessel shall remain outside, or below the place so fixed by the Governor of Bengal, the master or commander shall in like manner deliver to the pilot, so soon as the vessel shall anchor, a manifest as above prescribed, and if any vessel entering a port for which there is a custom house established, shall lie at anchor therein for the space of twenty four hours, the master and commander whereof shall neglect to deliver the said manifest to the pilot on board, he shall for such neglect be liable to forfeit the sum of 1000 rupees and no entry or port clearance shall be given for such vessel until the fine is paid

VII And it is hereby enacted that no vessel shall be allowed to break bulk until the manifest described in the preceding section of this Act, and another copy thereof to



be presented at the time of applying for entry inwards, shall have been received by the collector of customs, and order shall have been given by the said collector for the discharge of the cargo and the said collector may further refuse to give such order if he shall see fit, until any port clearances, cockets, or other papers known to be granted at the places from which the vessel is stated to have come, shall likewise be delivered to him

VIII And it is hereby enacted that it shall be competent to the collector of customs at any port of Bengal or Orissa at his discretion to send one or more officers of customs on board of any vessel at any time, and the custom-house officer so sent, shall remain on board of such vessel by day and by night, until the vessel shall leave the port or until it be otherwise ordered by the collector of customs

IX Any master or person in charge of such vessel who shall refuse to receive a custom-house officer on board when so deputed as above provided, or shall not afford such officer suitable shelter and sleeping accommodation while on board, shall be liable to fine not exceeding the sum of 500 rupees for each day during which such officer shall not be received and provided with suitable shelter and accommodation

X Any master or person in charge of a vessel, who shall resist such officer, or refuse to allow the vessel to be searched when so ordered by the collector of customs, shall be liable, upon conviction for every such offence, to a fine of 1000 rupees, to be adjudged by any magistrate or justice of the peace of the place

XI No goods shall be allowed to leave any vessel, or to be put on board thereof, until entry of the vessel shall have been duly made in the custom-house of the port. After entry of the vessel at the custom house in due form, such part of the cargo as may not be intended and declared for re-exportation in the same vessel, shall be sent to land, and export cargo shall be laden on board thereof, according to the rules and practice now in force, and if an attempt be made to land or put on board goods or merchandise in contravention thereof, the goods or merchandise shall be liable to seizure and confiscation

XII Goods unmanifested not to be landed in ordinary form, but to be seized on board. Master to be answerable that all goods manifested are forthcoming and duly passed under penalty of 500 rupees for each missing package of unknown value, or double duty if assessable. Rule for presenting an amended or supplemental manifest

XIII Custom-house officers taking unauthorised fees or bribes, subject to penalty of 500 rupees. Same penalty on persons offering

XIV Collector to investigate, and adjudge confiscation. Board's confirmation necessary

XV Twenty or thirty days allowed to clear inwards, according to tonnage, after which, the master to pay charges of the custom house officer. Master to land goods if consignees do not, if these fail, a collector may land and warehouse and may land packages before twenty days, without consent of master

XVI Further period of fifteen or twenty days, for continuous lading for exportation. If the vessel be laid up, tide-waiter to search and leave certifying that it is empty. Twenty and thirty days, according to tonnage, allowed for lading a vessel outwards after being laid up, but search and certificate that nothing is on board necessary

XVII When penalty has been incurred by a master, the collector may refuse port clearance of the vessel till it be paid

XVIII Goods shipped after port clearance to pay double duty, and five per cent if free

XIX In case of relanding for damage putting back in distress, &c, officer to proceed on board to watch, and cargo not to be exempt from duty on re-export, unless all the while in charge of custom house officers. Proviso for re-impotation when duties and drawbacks are to be returned and master to forfeit the value of drawback, goods not forthcoming

XX No refund of charges after port clearance

XXI Vessels owned by subjects of Arabia, and coming from the ports thereof, and likewise the vessels of any country or port of Asia, not subject to the dominion of the

King of the United Kingdom of Great Britain and Ireland, excepting dhonies and small craft from the Maldivé and Nicobar islands as herein under provided, shall be deemed foreign vessels

XXII Dhonies, country craft, and other small vessels not brought into the port of Calcutta by pilots, shall be required to anchor and moor in such part of the River Hooghly as shall be marked out by the collector of customs, with the sanction of the Board of Customs Salt, and Opium, and if any such vessel shall anchor in any other part of the river than as so marked out, and the master or person in charge thereof shall not immediately upon being ordered so to do, move his vessel to the place marked out, he shall be liable to a fine of 100 rupees. Vessels of this description coming from the Maldives, or from the Nicobar Islands, shall be considered as British vessels

TARIFF, SCHEDULE A.—Rates of Duty to be charged on Goods Imported by Sea into any Port of the Presidency of Fort William in Bengal

Number	ENUMERATION OF GOODS	When Imported on British Bottoms	When Imported on Foreign Bottoms
1	Bullion and coin	free	free
2	Precious stones and pearls	ditto	ditto
3	Grain and pulse	ditto	ditto
4	Horses and other living animals	ditto	ditto
5	Ice	ditto	ditto
6	Coal coke bricks chalk and stones	ditto	ditto
7	Books printed in the United Kingdom or in any British possession	ditto.	3 per cent.
8	Foreign books	3 per cent.	6 per cent.
9	Marine stores, the produce or manufacture of the United Kingdom or of any British possession	3 per cent.	6 per cent.
10	Ditto ditto the produce or manufacture of any other place or country	6 per cent.	13 per cent.
11	Metals, wrought or unwrought the produce or manufacture of the United Kingdom or any British possession	3 per cent.	6 per cent.
12	Metals ditto ditto excepting tin the produce or manufacture of any other place	6 per cent.	13 per cent.
13	Tin the produce of any other place than the United Kingdom or any British possession	10 per cent.	20 per cent.
14	Woolens, the produce or manufacture of the United Kingdom or any British possession	3 per cent.	4 per cent.
15	Ditto the produce of any other place or country	4 per cent.	8 per cent.
16	Cotton and silk piece goods cotton twist and yarn the produce of the United Kingdom or of any British possession	3½ per cent.	7 per cent.
17	Ditto the produce of any other place	7 per cent.	14 per cent.
18	Opium	24 rupees per seer of 80 tolas.	4 rupees per seer of 80 tolas
19	Salt	3-4 rupees per maund of 40 tolas per seer	3-4 rupees per maund of 40 tolas per seer
20	Alum	10 per cent.	30 per cent.
21	Camphor	10 per cent.	30 per cent.
22	Cassia	10 per cent.	30 per cent.
23	Ginger	10 per cent.	30 per cent.
24	Coifea	7½ per cent.	1½ per cent.
25	Coral	10 per cent.	30 per cent.
26	Nutmegs and mace	10 per cent.	30 per cent.
27	Pepper	10 per cent.	30 per cent.
28	Rattans	7½ per cent.	15 per cent.
29	Tea	10 per cent.	30 per cent.
30	Vermin lion	10 per cent.	30 per cent.
31	Wines and liquors	10 per cent.	30 per cent.
32	Spirits consolidated duty including that levied heretofore through the police of Calcutta And the duty on spirits shall be rateably increased as the strength exceeds of London proof and when imported in bottles, if a quart bottles shall be deemed equal to the imperial gallon	6 annas per imperial gallon	16 annas per imperial gallon.
33	All articles not included in the above enumeration	3½ per cent.	7 per cent.

And when the duty is declared to be *ad valorem* it shall be levied on the market value without deduction, and if the collector of customs shall see reason to doubt whether the goods come from the country from which they are declared to come by the importer it shall be lawful for the collector of customs to call on the importer to furnish evidence as to the place of manufacture or production and if such evidence shall not satisfy the said collector of the truth of the declaration, the goods shall be charged with

the highest rate of duty, subject always to an appeal to the Board of Customs, Salt, and Opium

And upon the re-export by sea of goods imported, excepting opium and salt, provided the re-export be made within two years of the date of import as per custom-house register, and the goods be identified to the satisfaction of the collector of customs, there shall be retained one-eighth of the amount of duty levied, and the remainder shall be repaid as drawback. And if goods be re-exported in the same ship without being landed (always excepting opium and salt, in regard to which the special rules in force shall continue to apply) there shall be no import duty levied thereon.

TARIFF, SCHEDULE B—Rates of Duty to be charged upon Goods Exported by Sea from any Port or Place in the Presidency of Fort William in Bengal

Number	ENUMERATION OF GOODS	Exported on British Bottoms.	Exported on Foreign Bottoms
1	Bullion and coin	free	free.
2	Precious stones and pearls	ditto	ditto
3	Books printed in India	ditto	ditto
4	Horses and living animals	ditto.	ditto
5	Opium purchased at Government sales in Calcutta	ditto	ditto.
6	Cotton wool exported to Europe, the United States of America, or any British possession in America.	ditto	8 annas per maund of 80 tolas to the seer
	Ditto ditto exported to places other than above	8 annas per maund of 80 tolas per seer	10 annas per maund of 80 tolas to the seer
8	Sugar and rum exported to the United Kingdom or to any British possession	free	3 per cent
9	Ditto exported to any other place	3 per cent	5 per cent
10	Grain and pulse of all sorts	1 anna per bag, not exceeding 2 maunds of 80 tolas to the seer, or if exported otherwise than in bags ½ anna per maund	2 annas per bag not exceeding 2 maunds of 80 tolas to the seer, or if exported otherwise than in bags 1 anna per maund
11	Indigo	3 rupees per maund of 80 tolas to the seer	6 rupees per maund of 80 tolas to the seer
12	Lac dye and shell lac	4 per cent	8 per cent
13	Silk raw filature	3½ annas per seer of 80 tolas	7 annas per seer of 80 tolas
14	Silk Bengal wound	3 annas per seer of 80 tolas	6 annas per seer of 80 tolas
15	Tobacco	4 annas per maund	8 annas per maund
16	All country articles not enumerated or named above	1 per cent	6 per cent.

And when the duty is declared to be *ad valorem*, the same shall be levied on the market value of the article at the place of export, without deduction.

And in settling for the duties on exports by sea, credit shall be given for payment of inland customs duty, and drawback shall be allowed of any excess of duty paid upon production of ruwanas under the following conditions, until the 1st of April, 1837—

1st That the goods shall be identified, and destination to the port of export proved by usual manner.

2nd That the ruwanas shall bear date before the 1st of April, 1836, and the goods shall not have been protected thereby, or by the original thereof, more than two years.

And after the said 1st of April 1837, credit shall not be given, nor shall drawback be allowed of any inland customs or land frontier duty paid at any custom-house or chokee of the Jumna frontier line, or of Benares, except only upon the article of cotton wool covered by ruwanas taken out at the custom houses of the Western Provinces, and proved to have been destined for export by sea when passed out of those provinces.

*By Act No XXV, of the Right Honourable the Governor-General of India in Council, on the 31st of October, 1836, it is enacted that—*

I Governments of presidencies are to declare warehousing ports

II Importers may then warehouse

III Making application in Form A, annexed Goods first to be assessed for customs' duty Warehouse-keeper to be answerable for weight or gauge of the custom-house, allowing for wastage

IV Mis-description of tale goods or packages to injury of revenue, punishable by fine of ten times the loss Error of overstatement may be rectified before, not after entry into warehouse.

V Packages to be marked and numbered before reception into warehouse

VI When the duty exceeds 100 rupees, bond may be executed for it in Form B, and goods may then remain in warehouse for fifteen months without demand of duty Bond to be for twice the duty, and to bear interest from the date of demand The obligee to be bound for all duties and charges claimable on the goods, and for all penalties

VII. But collector to have power to proceed against the goods or under the bond, at his option, and to detain goods and sell after ten days, if the demand be not paid Proceeds of sale to be written off on the bond, and surplus paid over to the owner of the goods No transfer to bar this process

VIII After fifteen months, the board may renew the bond for other fifteen months

IX Goods re-landed from a vessel put back, may be warehoused without bond, and re-shipped under the previous settlement of duties Exception unless the goods should be liable to duty on being passed through the custom-house for importation

X Reserved duty on re-export to be chargeable on removal of goods for shipment and bonds to be cancelled on payment thereof

XI On removal otherwise than for re-export, or if not cleared in time, full import duty to be levied, with interest and charges, and collector may cause goods to be sold in satisfaction, if not paid in ten days

XII Removal of goods to be noted in the bond, with particulars

XIII And the same particulars to be registered in the register of bonds When registry shows all the bonded goods to have been cleared out, bond to be cancelled, and returned to the obligee

XIV The custom house godowns and other government godowns to be public warehouses These to be under the collector's or warehouse-keeper's key

XV Board to determine what goods are to be receivable into public warehouse, and the terms and rates of warehouse rent or hire Table of rates to be exposed conspicuously

XVI Owners to have access to their warehoused goods, attended by a custom house officer, during business hours

XVII Expenses of carriage, packing, &c., are to be borne by the owners, and to be realised as customs duties Bill for rent to be sent in monthly, and if not paid in ten days, goods may be sold in satisfaction Collector not answerable for loss by fire or other accident, nor for damage

XVIII Wastage to be allowed as per table

TABLE of Wastage to be allowed upon Goods when applied to be removed either from Public or Private Licensed Warehouses

Description of Goods.	Rate of Wastage	Description of Goods	Rate of Wastage
	per cent		per cent
Alkali	3	Lac lake stick and seed	3
Alumina	3	Long pepper and long pepper root	3
	3	Oils essential and fragrant	3
	3	Resin or dammer	7½
Aromatic seeds	3	Sho ga	4
Anise	3	Sugar	4
Coriander	3	Saltpeetre	4
Cummin	3	Soap	3
Calizetals	3	Silk	5
Cardamoms	3	Cloves	5
Jowain	3	Cinnamon	2
Beeswax	7½	Cassia	3
Brimstone	3	Iface	3
Camphor	2	Pepper	5
Coal	5	Pimento, or allspice	2
Copper as r green vitriol	5	Tobacco unprepared.	5
Cotton wool	3	Turpentine	3
Dry ginger	10	Totenague	3
Gems and drags not otherwise specified	3		
Iron wrought bars	3		
Indigo	3		
Kutch or terra japonica	3		

Wines and spirits in casks—a deduction for tilage of 10 per cent shall be allowed at the time of being received into warehouses

XIX Board may license any private warehouses License to be revocable at pleasure, unless otherwise stipulated

XX Applications for license for private warehouse to be in Form C, with particulars filled up

XXI Collector or warehouse-keeper to have access to all licensed warehouses for himself and his officers Proprietors refusing admittance, subject to penalty of 1000 rupees, and withdrawal of license Bonds for duty to be put in suit seven days after notice of such penalty or of withdrawal of license

XXII If goods be found deficient beyond the wastage allowance, at time of delivery from warehouse, owner to forfeit ten times the duty on the deficiency, if found excessive, ten times the duty to be paid on the excess, and goods to be detained till paid

XXIII Collector of customs may issue warrant for breaking packages, to search and examine goods When repacked, to be sealed, and seal not to be rebroken without sanction of board, except under application from proprietor then to be resealed

XXIV Goods to be stamped on reception into or delivery from warehouse The stamp not to be removed or effaced without sanction of collector, under penalty of 500 rupees on conviction before a magistrate but owners may be allowed by the collector to take samples

XXV Goods not to be removed from warehouse without being passed through the custom-house

XXVI If a package be broken, duty to be levied on all the goods contained therein

XXVII Applications to remove goods to be made in Form D, and twenty-four hours notice to be given of removal

XXVIII Goods may be removed from one warehouse to another, application being made in Form E

XXIX No duty to be levied on goods destroyed by fire or other accident, and if damaged duty to be levied on the damaged value

XXX Penalties under this Act to be adjudged by the collector of customs, subject to coabimation by the Board or other superior authority of customs

A—Form of Application for the Reception of Goods Imported by Sea in Warehouses

To the Collector of Sea Customs at Calcutta

Sir,

Please to order the reception into the Government (or private warehouse of Mr A B, situate at \_\_\_\_\_, and licensed by No. \_\_\_\_\_, dated \_\_\_\_\_), of the undermentioned goods, being of the growth or manufacture of

(place to be stated), and arrived from (port or place to be mentioned) on the (British or other) ship whereof is commander, the duty upon which goods has been adjusted in the manner hereafter specified

Marks and Number of Packages.	Description of Packages and Goods.	Contents of Goods.	Rate of Value of the Goods.	Amount Value of the Goods as ascertained and entered on the landing of the same.	Rate of Duty both of Customs and Town Duty.	Date and Number of Importation.	Specification of the Particulars of Bonds if the Duty upon the Goods has been Bonded.
Total							

(Date)

(signed)

(By the owner, agent, or consignee of the goods.)

### B—Form of Bond for Export Duties

Know all men by these presents, that we now of Calcutta, at Fort William, in the province of Bengal, in the East Indies, and of the same place, are jointly and severally held, and firmly bound unto the East India Company in the sum of rupees to be paid to the said East India Company, or their certain attorney, agent, successors or assigns, for which payment well and truly to be made, we jointly and severally bind ourselves and each of us, and our respective heirs, executors, administrators, and representatives, by these presents sealed with our respective seals, dated the day of in the year of Christ and the said for themselves, and each of them and their respective heirs and representatives, covenant and agree, that in case of dispute touching the matter of this obligation, or the condition thereof, the same may be heard and determined in the Supreme Court of Judicature at

Whereas, the above bounden hath (or have) applied to the collector of sea customs of the said East India Company at for, and have obtained permission to, lodge in a certain public (or licensed) godown, for a period of fifteen months, subject to the rules or regulations of Government, the following goods that is to say (here a large blank should be left for describing the goods), being of the growth or manufacture of and imported by sea from on board the ship and entered in the custom-house books, as No of the register of goods imported by sea.

Now the condition of this obligation is such, that if the above bounden (the principal) his or their heirs, executors, administrators, representatives, or assigns, shall in all things well and truly observe and keep all and singular the rules prescribed in Act No XXV of 1836, to be observed and kept by the owners, importers or consignees of goods bonded and warehoused, and by the persons obtaining permission to bond and warehouse goods under the provisions thereof and if the said (the principal) his (or their, if more than one) heirs, executors, administrators, representatives or assigns, do and shall well and truly pay, or cause to be paid to the collector of customs for the time being for the port, all such dues, whether of customs or of lawful charges, as shall be due or demandable upon the said goods, or on account of penalties incurred in respect to them at or before the expiration of fifteen months from the date of these presents, or before or at the expiration of such further time as the Board of Customs shall allow in that behalf, together with interest thereon at the rate of per cent per annum from the date of demand thereof being made by the said collector of customs in writing and farther, if the said goods after being so warehoused, or any part thereof shall not within the term so fixed, or to be enlarged, be removed from the said public (or licensed) godowns or in case the said goods or any part thereof shall be removed from the said public (or licensed) warehouse at any time within the said term, either for importation or for exportation by sea, then, and in such case, if the full amount of all such duties, charges, and penalties as may be payable or demandable as aforesaid, shall have been first paid and satisfied on the whole quantity

of the said goods then this obligation to be void and of no effect, otherwise, and on breach or failure in the performance of the said several conditions, or any of them, the same to be in full force and virtue Sealed and delivered, &c

*C—Form of Application to obtain License for Private Warehouses*

To the Collector of Customs at Calcutta

Sir,

Please to submit to the Board of Customs (or other controlling authority of customs) my request to be furnished with a license under Act No XXV of 1836 for a warehouse situate at \_\_\_\_\_ and about the distance of \_\_\_\_\_ yards from the custom-house the dimensions and other particulars of the godown are stated below, and the same is intended for the reception of all goods as a general storehouse (or as the case may be) the period of license not to exceed (mention the time for which period)

Particulars of Goddown

Length, feet, inches  
Breadth, ditto ditto  
Height ditto ditto

{ Dry airy, well flued and puckah built  
can contain with perfect safety and con-  
venience, about \_\_\_\_\_ tons of goods

The same being my own property (or the property of \_\_\_\_\_ from whom I have engaged the same on a lease of \_\_\_\_\_)

(Signed)

(By the Applicant)

*D—Form of Application for Removal of Goods from Warehouses*

To the Collector of Government Customs

Sir,

Please to order to be passed from the (Government or private) warehouse of Messrs A and Co situate at \_\_\_\_\_ (and licensed under Act No XXV of 1836, by No \_\_\_\_\_ dated \_\_\_\_\_) the undermentioned goods intended for exportation by sea on the British ship \_\_\_\_\_ captain \_\_\_\_\_ bound to \_\_\_\_\_ or for internal consumption or to be consigned to (any station in the interior, as the case may be) the same having been entered in the books of your office for the said warehouse, under No \_\_\_\_\_ dated by (me or by Messrs B & Co, whose certificate of the transfer of the goods is herewith annexed)

<p>Marks and numbers of cases B &amp; Co (Name of the goods) No. 1 to 4. <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> Strained " Warehouse for exportation</p>	<p>Four cases of (name of good) 1 case box, bale or parcel containing (here insert the quantity in each case) 1 ditto 1 ditto 1 ditto Four (cases boxes bales, or parcels) con- taining (total contents to be here stated)</p>
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Custom-house value of the above \_\_\_\_\_ rupees and please to receive the amount of duty bonded for the said goods, by bond No \_\_\_\_\_ dated \_\_\_\_\_, allow- ing drawback for exportation on British bottom (or as the case may be)

(Signed)

(Either by the owner, agent, or consignee of the goods)

*E—Form of Application for the Removal of Goods from one Warehouse to another during the Period for which the Indulgence of Warehousing may have been obtained*

To the Collector of Government Customs at Calcutta

Sir,

Please to permit the removal of the under mentioned goods from the (government or other licensed) warehouse, to (the warehouse into which the removal is intended to be made, must here be distinctly described) for the unexpired period of warehousing due

on the goods, the same having been originally entered by virtue of Act No XXV of 1836, in the books, of the warehouse department under No , dated , for fifteen months (or such other period as may have been allowed, to be here stated) under all the obligations and conditions at present attached to the goods

Marks and Numbers of Packages	Description of Packages and of Goods	Contents of Packages	Rate of Value of Goods.	Amount of Value of Goods as entered in Custom house Books	Rate of Duty chargeable or paid upon the Goods	Name of the Persons by whom so first passed into Warehouses

*Note*—If the goods to be removed shall have been sold or transferred by the original proprietor or agent, a certificate of such sale or transfer shall accompany the application.  
(Signed) (By the owner, agent, or consignee of the goods)

*By Act No XXXII of 1836, passed by the Right Honourable the Governor-General of India in Council on the 28th of November, 1836*

It is enacted, that if any person after the 1st day of December 1836, lands or attempts to land in any part of the territories subject to the government of the Presidency of Fort William in Bengal, any sugar which is not the growth of a British possession into which foreign sugar cannot be legally imported, such sugar shall be seized and confiscated by the collector of customs, or by any other officer thereunto authorised by the governor of the said presidency, unless the district in which such sugar is landed, or in which an attempt has been made to land such sugar, be a district in which the Governor-general of India in council has authorised the importation of such sugar

*By Act No XIV of the Right Honourable the Governor-General of India in Council, on the 12th of June, 1837*

It is enacted, that whenever any foreign state in Asia or Africa shall permit within the dominions of such state, the importation or exportation of goods in British vessels on the same terms on which it permits the importation or exportation of goods in vessels belonging to the subjects of such foreign state, it shall be lawful for the Governor-general of India in council, by an order in council, to direct that goods may be imported into the territories of the East India Company or exported thence in vessels belonging to the subjects of such foreign state, on the same terms on which such goods are imported into the said territories, or exported thence in British vessels

*By Act No XVI of the Right Honourable Governor-General of India in Council, on the 3rd of July, 1837*

It is enacted, that when the customs duties fixed to be levied upon goods exported by sea from any port of Bengal or Orissa shall be *ad valorem*, the value of such goods shall be declared by the exporter in the manner prescribed for goods imported into Calcutta by sea, and the provisions shall apply to goods intended to be exported by sea in like manner as for imported goods, and the value so to be declared by the exporter, shall include the packages or materials in which the goods may be contained, and it shall be lawful for the governor of the Presidency of Fort William in Bengal, from time to time, by notice in the official "Gazette," to fix a value for any article liable to *ad valorem* duty, and that the value so fixed by the governor of the said presidency shall, till altered by a similar notice, be taken to be the value of such article for the purpose of levying duty on the same.



No payment shall be made of drawback upon any goods exported from any port of Bengal or Orissa, unless the export be made within two years from the date of the import in the custom-house registers, nor unless the claim to receive such drawback be made at the time of exportation, nor unless the amount due thereupon be demanded within one year from the date of entry for shipment in the custom-house registers.

The Board of Customs, Salt, and Opium, shall have power to fix and from time to time to alter the rates of wharfrage and godown rent charges, and to determine the time for which goods shall be allowed to remain on the wharfs or in the godowns of the custom-house, free of charge, while the goods are being passed for import or export by sea.

It shall be lawful for the collector of customs, whenever he shall see fit, to require that goods brought by sea and stowed in bulk, shall be weighed on board ship before being sent to land, and to levy duty according to the result of such weighing.

*By Act No 1 of the Honourable the President of the Council of India in Council, on the 3rd of January, 1838*

I It is enacted, that from the 1st of February, 1838, all Regulations of the Bombay Code passed before the year 1827 and now in force, with the exception of Sections I, II and III, Regulation VI, 1799, and of clause 2, Section VII Regulation IX, 1800, and of Sections XIV, XVII, XX, XXI, and XXV, Regulation I, of 1805, and of the whole of Regulations II, 1810, and VI 1814, shall be repealed.

II And it is enacted, that Chapters I, II, IV, VI, VIII and IX, of Regulation XX, 1827, of the said Code, together with the Appendices A, B, C, E, H, I, J, K, of that Regulation, also Regulation II, 1831, Regulation XIII, 1831 Regulation I 1832, Regulation IV, 1833, and Regulation IV, 1834, of the said Code and all such parts of any Regulations of the said Code as prescribe the levy of transit or inland customs' duties, or as require the payment of any fee whatever on account of any vessel which may enter any port in the territories subject to the Bombay Presidency, and likewise the provisions of any kind contained in those or in any other Regulations for fixing the amount of duty to be levied on goods imported or exported by sea at any place within the limits of the Bombay Presidency, or the drawback payable on the same shall be repealed, and it is further enacted, that Act No II of 1836 shall likewise be repealed, except in so far as it repeals any Regulation of the Bombay Code.

III Provided always, that nothing contained in the two preceding sections of this Act shall be construed to prevent the levy of any town duty, or of any municipal tax, or of any toll on any bridge, road canal, or causeway, for repair and maintenance of the same, or of any fee for the erection and maintenance of lighthouses.

IV That duties of customs shall be levied on goods imported by sea into any place in the territories subordinate to the government of the Presidency of Bombay, after the said 1st of February next, according to the rates specified in Schedule A, annexed to this Act, and with the exceptions specified therein, and the said Schedule, with the notes attached thereto, shall be taken to be a part of this Act.

V That duties of customs shall be levied upon country goods exported by sea from any ports of the Bombay Presidency after the said 1st of February next, according to the rates specified in Schedule B annexed to this Act, with the exceptions therein specified and the said Schedule with the notes attached thereto, shall also be taken to be a part of this Act.

VI That the ships of any European nation having firman privileges in the port of Surat shall not be subject to further duties of import or export than may be prescribed by their firmans respectively, any thing in the Schedules or in this Act notwithstanding.

VII That duties of customs shall be levied on goods passing by land into or out of foreign European settlements, situated on the line of coast within the limits of the

Presidency of Bombay, at the rates prescribed in the schedules of this Act for goods imported or exported on foreign bottoms at any British port in that presidency

VIII That it shall be lawful for the governor in council of the Presidency of Bombay to declare, by notice to be published in the Gazette of that presidency, that the territory of any native chief, not subject to the jurisdiction of the courts and civil authorities of that presidency, shall be deemed to be foreign territory, and to declare goods passing into or out of such territory liable either to the duty fixed for British or for foreign bottoms, as the said governor in council may think fit

IX That for the levy of duties of customs as above provided on goods exported by land to, or imported by land from such foreign territories, customs' chokees may be established at such places as may be determined by the said governor in council, and every officer at every such chokee shall have power to detain goods passing into or out of any such foreign territory, and to examine and ascertain the quantities and kinds thereof, and such goods shall not be allowed to pass across the frontier line out of or into the territory of the East India Company, until the owner or person in charge thereof shall produce and deliver a certificate showing that the customs' duty leviable thereupon has been paid in full

X That it shall be lawful for the said governor in council to appoint such officers as he may think fit, to receive money on account of customs' duties, and grant certificates of the payment thereof, and that such a certificate being delivered to any chokee officer shall entitle goods to cross the frontier into or out of the East India Company's territories, provided that the goods correspond in description with the specification thereof contained in such certificate, and that the certificate show the entire amount of duty leviable on those goods to have been duly paid

XI That the said governor in council shall give public notice in the official Gazette of the Presidency of Bombay, of the appointment of every officer appointed to receive customs duties on goods crossing the land frontier of the said foreign territories.

XII That no certificate shall be received at any chokee that shall bear date more than thirty days before the date when the goods arrive at the chokee

XIII That it shall be lawful for the said governor in council to prescribe, by public notice in the official Gazette of the Presidency of Bombay, by what routes goods shall be allowed to pass into or out of any such foreign territory, as is described in Sections VII and VIII of this Act, and after such notice shall be given, goods which may be brought to any chokee established on other routes or passes than those so prescribed, shall, if provided with a certificate, be sent back, and if not provided with a certificate shall be detained, and shall be liable to confiscation by the collector of customs, unless the person in charge thereof shall be able to satisfy the said collector that his carrying them by that route was from ignorance or accident

XIV That goods which may be passed, or which an attempt may be made to pass across any frontier guarded by chokees between sunset and sunrise, or in a clandestine manner, shall be seized and confiscated

XV That any chokee officer who shall permit goods to pass across the frontier when not covered by a sufficient certificate, or who shall permit goods to pass by any prohibited route, shall be liable to imprisonment for a term not exceeding six months, and to a fine not exceeding 500 rupees, if not paid, to imprisonment for a further period of six months

XVII All goods imported by sea into any port of the Presidency of Bombay from any foreign European settlement in India, or from any native state the inland trade of which has been declared by the governor in council of the Presidency of Bombay, under Section VIII of this regulation to be subject to the duties levied on foreign bottoms, shall be liable to the same duties as are imposed by Schedule A on imports on foreign bottoms

XVIII No goods whatsoever entered in either of the Schedules of this Act as liable to duty shall be exempted from the payment of such duty, or of any part thereof, except under special order from the governor in council of the Presidency of Bombay. Provided always, that it shall and may be lawful for the collector of customs, or other officer in charge of a custom house, to pass free of duty any baggage in actual use at

his discretion and if any person shall apply to have goods passed as such baggage, the collector acting under the orders of the government, shall determine whether they be baggage in actual use or goods subject to duty under the provisions of this Act.

**XIX** When goods are imported at any port of the Bombay Presidency from any other port in that presidency under certificate that the export duty specified in Schedule B has been duly paid thereon, or that there has been a re-export, and that the import duty specified in Schedule A has been duly paid, the said goods shall be admitted to free entry.

**XX** When duties of customs shall have been paid on any goods at any port in any part of the territories of the East India Company not subject to the Presidency of Bombay and when such goods shall subsequently be imported at any port of the Presidency of Bombay, credit shall be given at such last mentioned port for the sum that may be proved by the production of due certificates to have been so paid.

**XXI** It shall be lawful for the governor in council of the Presidency of Bombay, from time to time, by notice in the official Gazette of that presidency, to fix a value for any article or number of articles liable to *ad valorem* duty and the value so fixed for such articles shall, till altered by a similar notice, be taken to be the value of such articles for the purpose of levying duty on the same.

**XXII** When goods liable to duty, for which a value has not been fixed by such a notice as is above directed, or for which a fixed duty has not been declared by the Schedules annexed to this Act, are brought to any custom house in the Presidency of Bombay for the purpose of being passed for importation or exportation, the duty leviable on such goods shall be levied *ad valorem*, that is to say, according to the market value of such goods at the place and time of importation or exportation, as the case may be.

**XXIII** The market value for assessment of duties on *ad valorem* goods shall be declared by the owner, consignee, or exporter, or by the agent or factor for any of these respectively, upon the face of the application to be given in by him in writing for the passing of the goods through the custom-house, and the value so declared shall include the packages or materials in which the goods are contained and the application shall truly set forth the name of the ship in which the goods have been imported or are to be exported the name of the master of the said ship, the colours under which the said ship sails, the number, description marks, and contents of the packages, and the country in which the goods were produced.

**XXIV** Every such declaration, when duly signed, shall be submitted to the officer of customs appointed to appraise goods at the custom house, and if it shall appear to him that the same is correct, he shall countersign it as admitted, but if any part or the whole of the goods shall seem to him to be undervalued in such declaration, he shall report the same to the collector of customs, who shall have power to take the goods or any part thereof as purchased for the government at the price so declared, and whenever the collector of customs shall so take goods for the government, payment thereof shall be made to the consignee or importer, if the goods be imported goods, within fifteen days from the date of the declaration the amount of import duty leviable thereon being first deducted, and if the goods be intended for exportation, the entire value as declared shall be paid without deduction on account of customs duty.

**XXV** It shall be lawful for the governor in council of the Presidency of Bombay to declare by public notice in the official Gazette of that presidency, what places within the same shall be ports for the landing and shipment of merchandise, and any goods that may be landed or which an attempt may be made to land, at any other port than such as shall be so declared shall be seized and confiscated.

**XXVI** When any vessel shall arrive in any port of the Presidency of Bombay, the master shall deliver a true manifest of the cargo on board, made out according to the form annexed to this Act and marked C.

**XXVII** If the manifest so delivered by the master shall not contain a full and true specification of all the goods imported in the vessel the said master shall be liable to a fine of 1000 rupees and any goods or packages that may be found on board in excess of the manifest so delivered, or differing in quality or kind, or in marks and numbers, from

the specification contained therein, shall be liable to be seized by any customs officer and confiscated, or to be charged with such increased duties as may be determined by the collector of customs under the orders of government

XXVIII If any inward-bound vessel shall remain outside or below the place that may be fixed by the said governor in council for the first delivery of manifests, the master shall deliver a manifest as hereinbefore prescribed to the first person duly empowered to receive such manifest that may come on board, and if any vessel entering a port for which there is a custom-house established, shall lie at anchor therein for the space of twenty-four hours, the master whereof shall refuse to deliver the said manifest in the manner above prescribed, he shall for such refusal be liable to a fine not exceeding 1000 rupees and no entry or port clearance shall be given for such vessel until the fine is paid

XXIX No vessel shall be allowed to break bulk until a manifest as required by this act, and another copy thereof to be presented at the time of applying for entry inwards, if so required by the collector of customs, shall have been received by the said collector, nor until order shall have been given by the said collector for the discharge of the cargo.

XXX No goods shall be allowed to leave any vessel, or to be put on board thereof until entry of the vessel shall have been duly made in the custom-house of the port, and until order shall have been given for the discharge of the cargo thereof as above provided

XXXI If goods entered in the manifest of a vessel shall not be found on board that vessel, or if the quantity found be short and the deficiency be not duly accounted for, or if goods sent out of the vessel be not landed at the custom-house, or at such other place as the collector of customs shall have prescribed, the master shall be liable to a penalty not exceeding 500 rupees for every missing or deficient package of unknown value, and for twice the amount of duty chargeable on the goods deficient, and unaccounted for, if the duty can be ascertained provided, however, that nothing herein contained shall be construed to prevent the collector of customs from permitting, at his discretion, the master of any vessel to amend obvious errors, or to supply omissions from accident or inadvertence, by furnishing an amended or supplemental manifest

XXXII There shall in every port of the Bombay presidency be one or more places appointed for the landing and shipment of goods and goods shall not be landed at any other place without the special order in writing of the collector of customs for the port

XXXIII If the governor in council shall see fit, for the security of customs at any port, to maintain special establishments of boats for the landing and shipping of merchandise, or to license and register the cargo-boats plying in any ports, then after due notification thereof, it shall not be lawful for any person to convey goods to or from any vessel in such port, otherwise than in the boats so authorised and prescribed, except under special permit from the collector of customs at the port, and any goods that may be found on board of other boats than those so authorised for the port, shall be liable to be seized by any officer of customs, and shall be liable to confiscation

XXXIV When the governor in council of the Presidency of Bombay shall see fit to maintain at any port an establishment of officers to be sent on board of vessels to watch their unloading and lading then, after due notification shall have been given that such establishment is so maintained at any port, the collector of customs at that port shall have power at his discretion to send one or more officers of such establishment to remain on board of any vessel in such port by night and by day, until the vessel shall leave the port or it shall be otherwise ordered by the collector

XXXV Any master of such vessel at such port who shall refuse to receive such officer with one servant on board or shall not afford such officer and such servant suitable shelter and sleeping accommodation while on board, and likewise furnish them with a due allowance of fresh water, if necessary, and with the means of cooking on board, shall be liable to a fine not exceeding the sum of 100 rupees for each day during which such officer and servant shall not be received and provided with suitable shelter and accommodation

XXXVI Whenever a collector of customs shall see cause to direct that any vessel

shall be searched he shall issue his warrant or written order for such search, addressed to any officer under his authority, and any master or person in charge of a vessel, who shall resist such officer or refuse to allow the vessel to be searched when so ordered by the collector of customs, shall be liable upon conviction for every such offence to a fine of 1000 rupees. Concealed goods to be confiscated.

XXXVII Every master of a vessel who shall remove from such vessel or put on board thereof any goods, or cause or suffer any goods to be removed from thence or put on board thereof between sunrise and sunset, or when the custom house is closed for business without leave in writing obtained from the collector of customs, shall be fined not exceeding 500 rupees.

XXXVIII No cargo boat laden with goods intended for exportation by sea shall make fast to or lie alongside of any vessel on board of which there shall be a customs' officer stationed, unless there shall be on board the boat or have been received by the said customs' officer, a custom-house permit or order for the shipment of the goods and the goods on board of any boat that so be alongside or be made fast to a vessel, if such goods be not covered by a custom house pass accompanying them, or previously received by the customs' officer on board, the said vessel shall be liable to confiscation.

XXXIX There shall be sent with each boat load or other separate despatch a boat-note, specifying the number of packages and the marks and numbers, or other description thereof.

XL When goods shall be brought to be passed through the custom-house, if the packages in which the same may be contained shall be found not to correspond with the description of them, the whole of the goods contained therein shall be liable to confiscation.

XLI If any person, after goods have been landed, and before they have been passed through the custom house, removes or attempts to remove them with the intention of defrauding the revenue, the goods shall be liable to confiscation.

XLII It shall be lawful for the collector of customs whenever he shall see fit, to require that goods brought by sea and stowed in bulk shall be weighed or measured on board ship before being sent to land, and to levy duty according to the result of such weighing or measurement.

XLIII On application by the exporter of any salt that has paid the excise duty fixed by act No XXVII of 1837, a certificate shall be granted by the collector of customs at the place of export under authority of which certificate the quantity of salt specified therein shall be landed at any other port of the said Presidency of Bombay, and shall be passed from such port into the interior without the levy of any further duty either of excise or of customs.

XLIV Twenty days, exclusive of Sundays and holidays shall be allowed for the discharge of the import cargo of vessels not exceeding 600 tons' burden, and thirty days exclusive of Sundays and holidays, for the discharge of the import cargo of vessels exceeding that burden.

XLV When there shall be no customs' officer sent aboard vessels discharging cargo, it shall be lawful for the collector of customs to fix a period not being less than twenty days for the discharge thereof and clearance of the vessel inwards and if any goods remain on board after the time so fixed, or after the time allowed in the last preceding section of this act, the collector may order the same to be landed and warehoused for the security of the duties chargeable thereon, and of any freight and primage and other demands that may be due thereon giving his receipt to the master for the same provided always that in all cases it shall be lawful for the collector or other officer in charge of the custom house, with the consent of the master of the vessel, to cause any packages to be brought on shore and to be deposited in the government warehouses for the security of the duties and charges thereon, although twenty days may not have expired from the entry of such vessel, and in case any goods brought to land from any vessel be not claimed and cleared from the custom house within three months from the date of entry of the ship in which such goods were imported, it shall be competent to the collector to sell the same on account of the duties and other charges due thereon,

and the balance remaining after deducting the said duties and charges shall be held in deposit, and paid to the owner on application.

XLVI When a customs officer shall be sent on board of any vessel discharging cargo, a further period of fifteen days, Sundays and holidays excluded, beyond the twenty days above specified shall be allowed for putting on board export cargo if the vessel shall not exceed 600 tons burden, and twenty days if it exceed that burden.

XLVII When upon application from the master of any vessel the customs officer shall be removed from on board thereof, if the master of such vessel shall, before a customs officer have again been placed in such vessel, put on board of such vessel or cause or suffer to be put on board of such vessel, any goods whatever such master shall be punished with a fine not exceeding 1000 rupees and the goods shall be liable to be reloaded for examination at the expense of the shippers, upon requisition to that effect from the collector of customs.

XLVIII Upon any goods liable to duty that may be passed through the custom-house for shipment, the application for which shall be presented after port clearance shall have been taken out, double of the prescribed duties shall in all cases be levied, and if the goods be free, or have already paid import duty, or have been imported free under certificate, five per cent upon the market value shall be levied thereon, or if the same be imported goods entitled to drawback, the drawback shall be forfeited, but no separate duty shall be levied on drawback goods.

XLIX When a vessel having cleared out from any port shall put back from stress of weather, or it shall for any damage or from other cause, be necessary that the cargo of a vessel that has cleared out shall be unshipped or reloaded, a customs officer shall be sent to take charge of the cargo during such reloading or removal from on board.

L When goods shall be reloaded before the lading of any vessel is complete, and before port clearance has been granted, the duty levied upon such goods shall be returned to the exporter, but no refund shall be made of duty paid on the export of any goods after port-clearance shall have been granted for the vessel on which the goods were exported, unless the vessel shall have put back for stress of weather, or for damage, and the goods shall have been reloaded.

LI It shall be lawful for the said governor in council to establish rules for the anchoring of the coasting and country craft of the British territories, for the delivery of manifests of the cargo of such vessels, and for the landing of goods therefrom, and shipping of goods therein.

LII Pattamars, dhonies, botellos, and other small craft from the Maldives or Laccadive Islands, or from the native ports of Kattywar Cutch, and Scinde shall be treated in the ports of the Bombay Presidency like the coasting craft of the British territory, provided that they conform to such special regulations as to the place of anchoring and mode of landing and shipping goods as may be made by the governor in council of Bombay for such vessels in the several ports of the Bombay Presidency.

LIII No drawback shall be allowed on goods shipped on such native craft as are described in the last preceding section of this Act.

LIV Goods exported in the same vessels, if manifested for re-export, shall not be subject to import or export duty, and if any goods brought to any port in any vessel be transhipped in such port, they shall in all cases be subject to the same duty as if they had been landed and passed through the custom house for re-exportation in the vessel into which they may be transhipped.

LV No transhipment shall be made of any goods except under special order in writing from the collector of customs of the port.

LVI Every port subordinate to the Bombay Presidency, the port of Bombay excepted, an anchorage fee shall be levied once at each port according to the burden on all country craft above the burden of (100) one hundred maunds, at the rates hereinafter specified.

		Fee. Rupees
Above 10 candies (equal to 100 maunds), not exceeding 20 candies (200 Indian maunds)		1 0
20	40	1 8
40	60	2 0
60	80	2 8
80	100	3 0
100	150	3 8
150	200	4 0
200	250	4 8
250	300	5 0
300	350	5 8
350	400 and upwards	6 0

LVII In all cases in which under this Act goods are liable to confiscation, the collector of customs of the place where those goods may be shall be competent to adjudge such confiscation

LVIII If any person in charge of a vessel shall have become liable to any fine on account of any act or omission relating to customs, the collector of customs shall be competent, subject to the orders of the governor in council of the Presidency of Bombay, to refuse port clearance to such vessel until the fine shall be discharged

LIX It shall be lawful for any collector of customs, or other officer who may be authorised to adjudicate customs cases, if he shall decide that a seizure of goods made under the authority of this Act was vexatious and unnecessary, to adjudge damages to be paid to the proprietor by the customs officer who made such vexatious seizure, besides ordering the immediate release of the goods and if the proprietor accept such damages, no action shall thereafter lie against the officer of customs in any court of justice on account of such seizure and if such adjudicating officer shall decide that the seizure was warranted, but shall deem the penalty of confiscation *is unduly severe*, it shall be lawful for him to mitigate the same to the extent of the levy of double duty, and if the said officer shall adjudge confiscation, it shall further be lawful for him to order that from the proceeds of the sale of the goods, a proportion not exceeding one half shall be distributed in rewards amongst such officers as he shall deem entitled thereto, and in such proportion as he may direct to each respectively

LX All officers of customs shall, as heretofore be amenable to the civil courts of the Presidency or Island of Bombay, by action for damages on account of any executive acts done in their official capacity, at the suit of the parties injured by such acts provided however, that no suit shall lie against a collector of customs or other officer for any judicial award in a matter of customs passed under the preceding section of this Act

LXI Whoever intentionally obstructs any officer in the exercise of any powers given by this Act to such officer, shall be punished with imprisonment for a term not exceeding six months or fine not exceeding 1000 rupees, or both

LXII Whoever, being an officer appointed under the authority of this Act, shall accept or obtain, or attempt to obtain from any person any property as a consideration for doing or forbearing to do any official act, shall be punished with imprisonment for a term not exceeding two years or fine, or both

LXIII Whoever, being an officer appointed under the authority of this Act practises or attempts to practise any fraud for the purpose of injuring the customs' revenue, or abets or connives at any such fraud, or at any attempt to practise any such fraud, shall be punished with imprisonment for a term not exceeding two years, or fine or both

LXIV It shall be lawful for the governor in council of Bombay, by an order in council to transfer any of the powers given to a collector of customs by this Act to any other functionary and to make any rules consistent with law for the carrying of this Act into effect and to establish such bunders and appoint such officers as he shall think fit, and to fix rates of wharfage and of rent to be paid for goods deposited or suffered to lie in the godowns of the custom house

CUSTOMS' TARIFF, SCHEDULE A — Rates of Duty to be charged on Goods Imported by Sea into any Port of the Presidency of Bombay

Number	ENUMERATION OF GOODS	When Imported on British Bottoms	When Imported on Foreign Bottoms.
1	Bullion and coin	free	free
2	Precious stones and pearls	ditto	ditto
3	Grain and pulse	ditto	ditto
4	Horses and other living animals	ditto	ditto
5	Ice	ditto	ditto
6	Coal coke bricks chalk stones (marble and wrought stones excepted)	ditto	ditto
7	Books printed in the United Kingdom or in any British possession	ditto	3 per cent
8	Foreign books	3 per cent	6 per cent.
9	Marine stores the produce or manufacture of the United Kingdom or of any British possession	3 per cent	6 per cent
10	Marine stores the produce or manufacture of any other place or country	6 per cent.	12 per cent
11	Metals wrought or unwrought the produce or manufacture of the United Kingdom or any British possession	3 per cent.	6 per cent
12	Metals wrought or unwrought, excepting tin the produce or manufacture of any other place	6 per cent.	12 per cent
13	Tin the produce of any other place than the United Kingdom or any British possession	10 per cent.	20 per cent.
14	Woolens the produce or manufacture of the United Kingdom or any British possession	2 per cent.	4 per cent.
15	Woolens the produce of any other place or country	4 per cent.	8 per cent
16	Cotton wool not covered by certificate of the payment of export duty at any other port of Bombay	9 annas per maund of 80 tolas to the seer	1 rupee 8 annas per maund of 80 tolas to the seer
17	Cotton and silk piece goods cotton twist and yarn the produce of the United Kingdom or of any British possession	3½ per cent	7 per cent
18	Cotton and silk piece goods the produce of any other place	7 per cent.	14 per cent
19	Opium covered by a pass	free	free
20	Opium not covered by a pass	24 rupees per seer of 80 tolas	24 rupees per seer of 80 tolas.
21	Salt, not covered by a pass	8 annas per maund of 80 tolas per seer	8 annas per maund of 80 tolas per seer
22	Alum	10 per cent.	20 per cent.
23	Camphor	10 per cent	20 per cent
24	Cassia	10 per cent	20 per cent.
25	Cloves	10 per cent	20 per cent
26	Coffee	7½ per cent.	15 per cent
27	Coral	10 per cent	20 per cent
28	Nutmegs and mace	10 per cent	0 per cent
29	Pepper	10 per cent	20 per cent
30	Rotinas	7½ per cent.	15 per cent
31	Tea	10 per cent.	20 per cent
32	Vermilion	10 per cent	20 per cent
33	Wines and liquors	10 per cent.	20 per cent
34	Spirits consolidated duty including any duties levied here before through the police And the duty on spirits shall be rateably increased as the strength exceeds London proof and when imported in bottles five quart bottles shall be deemed equal to the imperial gallon	9 annas per imperial gallon	1 rupee per imperial gallon
	Tobacco Which duty shall be the minimum customs duty levied on raw tobacco and all preparations thereof in all the ports of the Bombay Presidency but if at the rate of 5 per cent on the actual value a higher duty than 1 rupee 8 annas per maund should be leviable on any preparation of tobacco the duty shall be levied at that rate if imported on British bottoms and at 10 per cent on foreign bottoms And the customs duty laid upon tobacco shall be allowed in settling for the special duty levied on the import of this article into the Island of Bombay which special duty shall be levied at the rate of 9 rupees for the Indian maund	1 rupee 8 annas per maund of 80 tolas per seer	1 rupee 8 annas per maund of 80 tolas per seer
36	All articles not included in the above enumeration	30 per cent	7 per cent

And if the collector of customs shall see reason to doubt whether the goods liable to a different rate of duty according to the place of their production, come from the country from which they are declared to come by the importer, it shall be lawful for the collector of customs to call on the importer to furnish evidence as to the place of manufacture or production and if such evidence shall not satisfy the said collector of the



truth of the declaration, the goods shall be charged with the highest rate of duty, subject always to an appeal to the governor in council at Bombay

And upon the re-export by sea of goods imported, excepting opium and salt, and all goods of the growth, production or manufacture of the continent of India, provided the re-export be made within two years of the date of import as per custom house register, and the goods be identified to the satisfaction of the collector of customs, there shall be retained one eighth of the amount of duty levied, and the remainder shall be repaid as drawback

But no exporter of imported goods shall be entitled to drawback unless the drawback be claimed at the time of re-export, nor shall any payment be made of drawback unless the amount claimed be demanded within one year from the date of entry of the goods for re-export in the custom house registers

TARIFF, SCHEDULE B—Rates of Duty to be charged on Goods Exported by Sea, from any Port or Place in the Presidency of Bombay

Number	ENUMERATION OF GOODS	Exported on British Bottoms	Exported on Foreign Bottoms
1	Bullion and coin	free	free
2	Precious stones and pearls	ditto	ditto
3	Books maps and drawings printed in India	ditto	ditto
4	Horses and live animal	ditto	ditto
5	Opium covered by a pass	ditto	ditto
6	Opium not covered by a pass	Prohibited	Prohibited
7	Cotton wool exported to Europe the United States of America or any British possession in America	free	9 annas per maund of 80 tolas to the seer
8	Cotton wool exported to places other than above	9 annas per maund of 80 tolas per seer	1 rupee 4 annas per maund of 80 tolas to the seer
9	Salt, having paid the excise of 9 annas a maund	free	free
10	Opobacco	1 rupee 8 annas per maund of 80 tolas to the seer	1 rupee 8 annas per maund of 80 tolas per seer
11	All country articles not enumerated or named above	3 per cent	6 per cent

And upon the re-export to Europe, the United States of America or to any British possession in America, or from any other port in the Bombay Presidency, of cotton that has been imported under certificate of the payment of the duty specified in this Schedule, provided that the re-export be made in British bottoms, within two years from the date of such certificate, and the amount be claimed within one year from the date of re-export as per custom house registers, the whole amount of export duty levied at the first place of export shall be refunded

FORM OF MANIFEST, SCHEDULE C

MANIFEST of Goods Imported per Commander, from under  
Colours, viz —

Marks	Numbers	Packages	Quantity	Weight	Gallons	Yards	Description of Goods	Invoice Value	Tariff Value
A	1 to 5	5 cases	250 pieces			5000	Cambrics Long cloths, blue bed Long tolas unbleached Madapolams bleached Madapolams unbleached Plain muslins		

NB—Articles generally to be specified, excepting such as ironmongery, hardware, glassware, earthenware, cutlery, perfumery, confectionery, stationery, and such like

All articles from Great Britain to be entered according to the English weight, not native

From China, in like manner in China weights  
In imports and exports of bullion or coin, to specify the sort of which they consist.

*By Act No XIX the Honourable the President of the Council of India in Council, on the 27th of August, 1838*

I. It is enacted, that from the 1st day of November, 1838, sections XX and XXI, Regulation XX of 1827, of the Bombay Code be repealed

II From the said 1st day of November, 1838, the following rules shall be in force with respect to vessels belonging to any of Her Majesty's subjects residing within the Presidency of Bombay, and employed on the coasts of the territories subject to the government of Bombay, or in trading coastwise, as also with respect to fishing vessels and harbour craft belonging to any of the same her Majesty's subjects

III Every such vessel employed as aforesaid, fishing vessel and harbour craft, shall be marked or branded with the name of the place to which she belongs, and also with a number assigned for the same, by the officer authorised to make such registry as is hereinafter mentioned, and the owner or owners of such vessel employed as aforesaid, fishing vessel and harbour craft, shall cause such name and number to be painted in black paint, upon a white ground on each quarter of such vessel employed as aforesaid, fishing vessel and harbour craft, in English figures and letters, each figure and letter being six inches in length

IV The name and number of every such vessel employed as aforesaid fishing-vessel and harbour craft, and her burden, and also the name or names of the owner or owners thereof, shall be registered in a book to be kept for that purpose, by the person directed to make such registry

The owner or owners of such vessels employed as aforesaid (fishing vessels and harbour craft being excepted), on being registered as aforesaid, shall pay —

For each certificate of registry for a vessel not exceeding 20 Bombay caudies burden the fee of	1 Rupee
For each certificate for a vessel exceeding 20 such caudies' burden, and not exceeding 100 caudies burden	5 "
For each certificate for a vessel exceeding 100 such caudies burden and not exceeding 400 caudies burden	7 "
And for each certificate for a vessel of 100 tons, or greater burden per ton	2 Annas

*By Act No XIII of the Honourable the President of the Council of India in Council, on the 20th of May, 1839*

I It is enacted, that the several charges of the port and roadstead of Madras, levied under the heads of anchorage duty, lighthouse duty, regular boat-hire and report catamaran hire, shall, from and after the 1st day of August next, be consolidated and commuted into a port duty, to be levied at the rate of three annas per ton upon every vessel not being a vessel sailing under the colours of a foreign European or American nation, of which the tonnage shall not exceed 700 tons by measurement, made in the manner prescribed by Act 5 & 6 Will IV c lvi, and if the vessel exceed 700 tons by measurement so made, the port duty shall be levied as upon that tonnage

II Upon every vessel sailing under the colours of a foreign European or American nation that may anchor in the port of Madras, there shall be levied a consolidated port duty at the rate of three annas six pie per ton, according to measurement made in the manner above prescribed

III If any vessels, British, native, or foreign, anchoring in the port of Madras, shall not break bulk therein, and shall not remain four complete days from the time of dropping anchor, there shall be levied upon such vessels reduced duties as follows, that is to say, two fifths of the tonnage duty prescribed above shall be levied upon every vessel which without breaking bulk shall, after anchoring therein, sail again out of the port

within forty-eight hours and seven-tenths upon every vessel which without breaking bulk shall stay more than forty-eight hours and less than four complete days

IV All powers and authorities, penalties, and other means whereby the payment of any of the charges of the port and roadstead of Madras may have been legally enforced before the passing of this Act, shall be applicable to the enforcing of the consolidated and commuted port duties imposed by virtue of this act

V It shall be lawful for the government of India to order the consolidation and commutation of any port or harbour duties, as levied in any subordinate port of any presidency into a tonnage duty, which shall be leviable at the rate and in the manner specified in the next following section of this Act, upon the vessels anchoring in and trading with such port

VI When the Governor general of India in council shall direct the port duties to be commuted and consolidated at any port of the Madras Presidency other than that of Madras, or any subordinate port of any other presidency, the total amount levied at such port shall not exceed one anna per ton for British and native vessels not exceeding 700 tons, and upon vessels exceeding that measurement at the rate for 700 tons, and upon foreign European and American vessels, at the rate of one anna four pie per ton, and all vessels anchoring in any such outports shall be charged with reduced duty, in the proportions above provided for the port of Madras, if they leave such port without breaking bulk before completing four entire days from the time of anchoring therein

VII The consolidated and commuted port duties above prescribed, when ordered to be levied in any port by the Governor-general of India in council, shall be levied by the officer appointed by the government of the presidency within which the port is situate, to give port clearances or other customary documents to vessels sailing from such port, that is to say, by the master attendant or by the collector of customs at such port, as may be ordered by such government, and if such duties be not paid upon demand, it shall be competent to such officer to withhold from the vessel on account of which payment may be refused any port clearance or other customary document required to be possessed by ships leaving such port until the same shall be paid

VIII All the powers and authorities, penalties, and other means by which any port or harbour duty of any subordinate port of any presidency which shall be consolidated and commuted by virtue of this Act, may have been legally enforced before the consolidation and commutation thereof as hereinbefore provided shall be applicable to the enforcing of the consolidated and commuted duties at such port, imposed by virtue of this Act

*By Act No XV of the Honourable the President of the Council of India in Council, on the 10th of June, 1839*

It is enacted, that if any person, on or after the day on which this Act will come into operation as hereinafter provided, lands, or attempts to land in any part of the territories subject to the government of the presidency of Fort St George any foreign sugar, or any sugar which is the growth of any British possession into which foreign sugar can be legally imported, such sugar shall be seized and confiscated by the collector of the customs, or by any other officer thereunto authorized by the governor in council of the said presidency Provided always that sugar which is the growth of any part of the presidency of Fort William in Bengal into which foreign sugar, and sugar which is the growth of any British possession into which foreign sugar may be legally imported, are prohibited from being landed, may, during such prohibition, be landed in the said territories as heretofore

*By Act No VI, the Right Honourable the Governor General of India in Council, on the 7th of June, 1841*

It is enacted that if any person after the passing of this act, lands or attempts to land, or shall introduce by land in any part of the territories subject to the

government of the Presidency of Fort William in Bengal, any rum or rum shrub which is the produce of any foreign country, or of any British possession into which foreign sugar or rum can be legally imported, such rum or rum shrub shall be seized by the collector of the customs, or by any other officer authorised to seize and detain contraband goods, and shall be brought to confiscation according to the rules in force for confiscating such goods, unless the district in which such rum or rum shrub is landed or in which an attempt has been made to land such rum or rum shrub, be a district in which the Governor-general of India in council has authorised the importation of such rum or rum shrub, and it shall be lawful for the Governor-general of India in council to authorise the importation of such rum and rum shrub into any district of the territories aforesaid by an order in the official Gazette

*By Act No X of the Right Honourable the Governor-General of India in Council, on the 5th of July, 1841*

An Act for prescribing the rules to be observed, in order that ships or vessels belonging to ports within the territories under the government of the East India Company, or belonging to native princes or states, or their subjects, may become entitled to the privileges of British ships under a proclamation of the Governor-general of India in council, made in pursuance of the statute 3 and 4 Victoria, c 56

I Whereas, by a statute passed in the third and fourth years of her Majesty Queen Victoria, intituled, "An Act to regulate the Trade of Ships built and trading within the limits of the East India Company's Charter," it is enacted, "that it shall be lawful for the Governor general of India in council, by proclamation, to declare that all ships or vessels built or to be built within the limits of the charter of the East India Company, being owned by her Majesty's subjects for whom the said Governor general in council has power to legislate and belonging, under the regulations hereinafter provided for, to any ports in the territories under the government of the said company, shall be deemed to be British ships for all the purposes of trade within the said limits, including the Cape of Good Hope and the territories and dependencies thereof, provided that upon such declaration being made, the said Governor-general in council shall, and the said Governor-general in council is hereby accordingly empowered to make regulations, to be enforced by suitable penalties, concerning the registering, licensing, and ascertaining the admeasurement of the tonnage and burden, and generally for the trading within the limits aforesaid of such ships or vessels." And whereas it is further enacted in the same statute as follows, that is to say, "And whereas it may be expedient to admit to similar privileges and advantages any ships or vessels belonging to native princes or states in subordinate alliance with, or having subsidiary treaties with the East India Company, or owned by subjects of any such princes or states, be it therefore enacted, that the Governor-general of India in council may by such regulations as aforesaid such regulations being subject as aforesaid, admit to the privileges and advantages of British ships for the purposes of trade within the limits of the charter of the said company, including the Cape of Good Hope and the territories and dependencies thereof, or to any of such privileges and advantages, any ships or vessels belonging to such princes or states, or any of them, or owned by subjects of any such princes or states but any such regulations shall provide for the granting to such ships or vessels fit and convenient licenses or passes, and generally for the trading within the limits aforesaid of such ships or vessels." And whereas, in pursuance of such enactments, it is expedient to frame such regulations as are mentioned therein, the compliance with which shall be required in order that ships or vessels may be deemed British ships or be admitted to the privileges and advantages of British ships, under such proclamation as aforesaid

That no ship or vessel shall be deemed a British ship under such proclamation as aforesaid (except as regards ships or vessels registered before the passing of this act or having a pass at the time of passing thereof), unless the person or persons claiming property therein shall have caused the same to have been registered at some one of the ports hereinafter mentioned within the territories of the East India Company, and shall have obtained a certificate of such registry from the person or persons authorised to make such registry and grant such certificate

II That the ports at which registration shall be made shall be the ports of Calcutta, Madras, Bombay, Singapore, and such other places subordinate to the local governments of India, as such governments respectively may from time to time declare to be registering ports under this act provided that ships or vessels built at any place other than any of such ports, shall be allowed to make their first voyage to any of such ports, being the ports at which it is intended they shall be registered, under a certificate to be granted by the principal British officer at the place where the ship is built, or if there be no British officer in authority there, then by three merchants of such place, which certificate shall contain all the particulars with regard to the ownership and description of the ships or vessels contained in a certificate of registry, and shall specify the ports at which it is intended that they shall respectively be registered, and which certificate shall have all the effect of a certificate of registry under this act, during the first voyage from the place of building to the ports at which the ships or vessels respectively shall be afterwards registered, provided that such ships or vessels so proceeding on their first voyage as aforesaid, shall be deemed British ships only whilst duly prosecuting such first voyage for the purpose of registry and if they be not registered within a reasonable time after their arrival at the port of registry, the owner or owners, or master or other person having or taking the command or charge of such ship or vessel, shall be liable on information in any court of Her Majesty or the East India Company by the advocates-general of the respective presidencies, to a penalty not exceeding 5000 rupees

III That the persons authorised to make such registry, and to grant such certificates as aforesaid, shall be the persons now authorised to make registry of ships or vessels under the statute 3 and 4 William IV c 55 and such other or different persons as the local governments may from time to time appoint for the ports under their respective presidencies

IV That at every port where registry shall be made in pursuance of this act, a book shall be kept by the registering officer in which all the particulars contained in the form of the certificate of the registry shall be duly entered

The other provisions of this act are, as respects registry, measurement, certificates, &c, similar to those of 3 and 4 William IV, c 55

#### *Proclamation*

The Governor general of India in council hereby declares that all ships and vessels built or to be built within the limits of the charter of the East India Company (as those limits are defined by the statute 3rd and 4th of Queen Victoria, cap 56, intitled, 'An Act further to regulate the Trade of Ships built and trading within the Limits of the East India Company's Charter,') being owned by her Majesty's subjects, for whom the said Governor general in council has power to legislate, and belonging under the provisions of the act passed by the Governor general in council, No X of 1841, to any ports in the territories under the government of the East India Company, shall be deemed to be British ships for all purposes of trade within the said limits, including the Cape of Good Hope and the territories and dependencies thereof

#### *Act No XIII of the Right Honourable the Governor General of India in Council, on the 16th of August, 1841,*

Declares and enacts that the import duty on wine and spirits in casks shall be settled on the quantities registered at the time of importation, without any deduction whatsoever provided always that the keeper of every warehouse indicated by Act No XXX of 1836 shall, in accounting with the customs department for the article so warehoused, be allowed ullage on such wine and spirits at the rate of ten per cent for one year, according to the time for which such wines and spirits shall have been lodged

*Act No XVIII of the Right Honourable the Governor-General of India in Council, on the 30th of August, 1841*

I Enacts that arms, ammunition, and military stores (with the exception of arms in the possession of individuals for private use) shall not be exported or otherwise taken from the territories of the East India Company without a license from a public officer or officers for each presidency to be indicated by the governments of the respective presidencies, for the purpose of granting such licenses, and a full compliance with all such rules and conditions as may be prescribed for the guidance of such officer or officers in regard to such exports by the aforesaid governments respectively, and any arms, ammunition, or military stores which any person shall export, or attempt to export, or take as aforesaid, contrary to this act, shall thereby become forfeited, on the award of the officer or officers authorised as aforesaid to grant licenses, or the collector of customs, and every person offending in the premises contrary to this act shall be liable, on conviction before a magistrate, to a penalty not exceeding 500 rupees

II That any person who shall collect or keep in one place, or within places not exceeding three miles in distance from each other, any quantity of gunpowder exceeding fifty pounds, without a license from such officer as aforesaid, shall be liable, on conviction before a magistrate, to a penalty not exceeding 500 rupees, and such gunpowder shall become forfeited on the award of the officer or officers authorised to grant licenses as aforesaid, or the collector of customs

III That it shall be lawful for any of the governments aforesaid, to allow at any port or ports, the exportation of arms, ammunition, and military stores, as aforesaid, without any such license as aforesaid, as they shall deem expedient

*Act No XXIII of the Right Honourable the Governor-General of India in Council, on the 11th of October, 1841,*

Enacts, that if any person after the passing of this Act, lands, or attempts to land, or shall introduce by land in any part of the territories subject to the government of the Presidency of Fort St George, in Madras, any rum or rum shrub which is the produce of any foreign country, or of any British possession into which foreign sugar or rum can be legally imported, such rum or rum shrub shall be seized by the collector of the customs, or by any other officer authorised to seize and detain contraband goods, and shall be brought to confiscation according to the rules in force for confiscating such goods, unless the district in which such rum or rum shrub is landed, or in which an attempt has been made to land such rum or rum shrub, be a district in which the governor in council has authorised the importation of such rum or rum shrub, and it shall be lawful for the governor in council to authorise the importation of such rum and rum shrub into any district of the territories aforesaid by an order in the official Gazette

*Act No IV regulates the Management of Boats and Catamarans in the Madras Roads, and for the Amendment of certain Harbour Regulations*

*By Act No XI, of 1842 for Amending and Explaining the Law concerning the Importation of Foreign Sugar*

It is hereby enacted and declared that the prohibition and penalties contained in Acts No XXXII of 1836 and No XV of 1839 against the landing or attempting to land in any part of the territories subject to the Presidency of Fort William in Bengal or the Presidency of Fort St George of any foreign sugar, or any sugar which is the growth of any British possession into which foreign sugar can be legally imported, shall apply and be deemed to apply to such sugar otherwise imported into any part of the territories subject to the said presidencies

*By Act No XIV of the Right Honourable the Governor General of India in Council on the 5th of August, 1843, for regulating the Levy of Customs' Duties, and the Manufacture of Salt in the North Western Provinces of the Presidency of Bengal*

I It is enacted, that Regulation XVI, 1829, Act II, 1838, and so much of Regulation IX, 1810 and of any other Regulation and Act as affects the collection of customs duties or the manufacture of salt in the North Western Provinces of the Presidency of Bengal shall be repealed from the 1st day of September, 1843

II That from and after the day above-mentioned the following and no other duties of customs shall be leviable upon the import and export of articles into and from the North-Western Provinces of the Presidency of Bengal, (that is to say)

On the import of salt, of all descriptions, two rupees per maund, and a further duty of one rupee per maund on the transmission thereof to the eastward of Allahabad

On the import of cotton, uncleaned, four annas per maund, cleaned, eight annas per maund

On the export of Misree, Kund, Chenee, and all clayed and refined sugar, eight annas per maund, Goor, Rab, Sheerah, and all unclayed and unrefined saccharine produce, three annas per maund

The import of sugar into any part of the said provinces is and shall remain prohibited

III That it shall be lawful for the government of the said provinces, from time to time to make and issue such orders as may be deemed expedient for the collection of the aforesaid duties, in such manner and upon such line or lines, and at such places on or near such line or lines as may seem fit, and all such orders shall have the same force as if they formed a part of this Act, from the date notified in the Gazette wherein they shall be published

IV That from and after the 1st day of September, 1843, the manufacture of alimentary salt throughout the North-Western Provinces of the Presidency of Bengal, without the express sanction of the government, is prohibited, and that any person engaging in the manufacture of such salt, or preparing or causing to be prepared works for the manufacture of such salt, without such sanction and all zemindars or other proprietors of land, or their agents, conniving at such illicit manufacture, shall, on conviction by the magistrate, within the limits of whose district the offence may have occurred, be punished by a fine not exceeding 500 rupees, and on non-payment of such fine by imprisonment not exceeding six months, with or without hard labour, and that all works at which such manufacture shall have been conducted, or which are designed for such manufacture, shall be destroyed, and any salt which may be manufactured or stored thereat, shall be seized and confiscated

V That it shall be lawful for the collectors of customs and the collectors of land revenue within their jurisdictions, to destroy all works for the manufacture of salt, and to seize the salt stored thereat, and to apprehend the persons concerned in the manufacture thereof, and make them over for trial to the magistrate within the limits of whose district the offence may have occurred

The fines penalties, &c., are then enumerated in the Act.

XIV Nothing in this Act contained shall apply or be deemed to apply to the Saugor and Nerbudda territories, or to the district of Ajmere

*By Act No XXV of the Right Honourable the Governor General of India in Council, on the 23rd of November 1843, for making the Provisions of 5 and 6 Vict., c 47, Sect XI applicable to India*

Whereas doubts have arisen as to whether so much of an Act passed in the 5th and 6th years of the reign of Her Majesty Queen Victoria, intituled, "An Act to amend the Laws relating to the Customs, as provides that from and after the 5th day of January 1843, any articles of foreign manufacture, and any packages of such articles imported into the United Kingdom or into the British possessions abroad, bearing any

names, brands, or marks, purporting to be the names, brands, or marks, of manufacturers resident in the United Kingdom shall be forfeited, is applicable to the territories subject to the government of the East India Company

It is hereby enacted, that from and after the 1st day of May, 1844, any articles of foreign manufacture, and any packages of such articles imported into the territories subject to the government of the said Company, bearing any names, brands or marks, purporting to be the names, brands, or marks, of manufacturers resident in the United Kingdom, shall be forfeited

*By Act No VI of the Right Honourable the Governor General of India in Council, on the 16th of March, 1844, for abolishing the Levy of Transit or Inland Customs, Duties, for revising the Duties on Imports and Exports by Sea, and for determining the Price at which Salt shall be sold for Home Consumption within the Territories subject to the Government of Fort St George*

I It is enacted, that from the 1st day of April, 1844, such parts of Regulation X of 1803, Regulation I of 1812, Regulation III of 1812, Regulation VI of 1812, and Regulation III of 1821, of the Madras Code, and all such parts of any regulations of the said code as prescribe the levy of transit or inland customs' duties at any town or place within the limits of the Presidency of Fort St George, shall be repealed

II That Regulation IX of 1803, with exception of sections 55 to 70, both inclusive, Regulation XI 1803, Regulation XIV of 1808, Regulation XV of 1808, with exception of section 5, Regulation II of 1812, with exception of sections 15 and 17, Regulation IV of 1812, and such parts of Regulation I of 1813, of the same code, as relate to the rates of duty and drawback on spirituous liquors imported or exported by sea, also Regulation II of 1816, Regulation II of 1818, Regulation III of 1818, Regulation IV of 1819, and Regulation VII of 1819, together with the schedules appended thereunto, excepting in so far as any of these regulations rescind any former regulations either in part or in whole, of the Madras Code, and likewise the provisions of any kind contained in the foregoing or any other regulations of the Madras Code, for fixing the amount of duty to be levied on goods imported or exported by sea, at any place within the limits of the Presidency of Fort St George, or the drawback payable on the same, shall be repealed

III That nothing contained in the two preceding sections of this Act shall be construed to prevent the levy of any municipal tax, or of any toll on any bridge, road canal, pier, or causeway, for repair and maintenance of the same, or of any fee for the erection and maintenance of lighthouses

IV That duties shall be levied on goods imported by sea into the Presidency of Fort St George—(See Schedule)

V That certain duties are to be levied on goods exported by sea from the Presidency of Fort St George

VI That certain duties are to be levied on goods passing by land into or out of foreign European settlements, adjacent to the Presidency of Fort St George

VII The governor in council may declare by notice in the Gazette, the territory of native chiefs, beyond the jurisdiction of the courts, to be foreign

VIII Customs' chokees may be established for the levy of duties on goods passing into or out of foreign territory Powers of officers at such chokees Goods not to be allowed to pass across the frontier line without a certificate of the duty thereon having been paid in full

IX The governor in council may appoint officers to collect duties and to grant certificates of payments If goods be found not to correspond with certificate, the difference to be noted on the face of the certificate and if the duty have not been duly paid, the goods to be detained until a further certificate be produced

X The appointments of officers to receive customs duties on the frontier to be notified in the official Gazette Officers so appointed bound to grant certificates on receipt of the proper duty



- XI Certificates not to bear date more than thirty days before the arrival of the goods
- XII The governor in council to notify in official Gazette by what routes goods may cross the land frontier After which, goods brought by other routes to be liable to detention or confiscation
- XIII Goods crossing frontier clandestinely to be confiscated
- XIV Penalty enacted for officer permitting goods to cross the frontier without certificate or by prohibited route
- XV Penalty for a chokee officer needlessly and vexatiously injuring goods or wrongfully detaining them
- XVI Goods imported by sea from foreign European settlements or native states declared foreign to be liable to duties leviable on foreign bottoms
- XVII No dutiable goods entered in either of the schedules of this Act to be exempted, unless under special order of government
- XVIII Under proviso goods may be imported duty free from any other Madras port
- X A Credit may be given at any Madras port for duties paid at any other British Indian port
- XX The governor in council to notify in the official Gazette, the valuation of articles liable to *ad valorem* duty
- XXI When no value has been fixed or declared, duty to be levied according to the market value
- XXII Application to be made in writing for the passing of goods through the custom house
- XXIII Declaration of market value to be submitted to appraising officer The collector of customs empowered to purchase undervalued goods at the price so declared
- XXIV Government to notify in the official Gazette the ports for landing and shipping merchandise Goods landing at other ports to be confiscated
- XXV Manifests of cargo to be sent in by masters of vessels on arrival The governor in council may appoint places beyond which no inward-bound vessel may pass until the master have forwarded his manifest of cargo Excepting certain country craft
- XXVI Penalty enacted for a master delivering a manifest not containing a full and true particular of cargo
- XXVII Masters of inward bound vessels remaining outside of the places fixed by the governor in council, required to deliver manifests Penalty for the master of a vessel refusing to deliver a manifest
- XXVIII No vessel to break bulk until the collector of customs has received ship's papers
- XXIX Goods moved from or put on board of any vessel without due entry in the custom house or permission for discharge of cargo, to be seized as contraband After entry in due form cargo not declared for re-exportation may be landed, and export cargo laden Goods liable to seizure and confiscation if attempted to be landed or put on board in contravention of this Act
- XXX Penalty on master if cargo does not correspond with his manifest or if goods sent out of the vessel be not landed at the prescribed places But allowed to amend obvious errors in manifests of cargo
- XXXI One or more places in every port to be appointed for the landing and shipment of goods Goods landing at or shipping from any other place without special permission to be confiscated
- XXXII The governor in council may license boats for landing and shipping merchandise and after notification goods found on any other boats to be liable to confiscation excepting under special permit from the collector of customs
- XXXIII After due notification by government, the collector of customs empowered to station customs officers on board of any vessel
- XXXIV Penalty enacted for the master of a vessel refusing to receive and accommodate such officer

XXXV Collector of customs may issue warrant to search any vessel, and a penalty for any master of a vessel resisting officer with warrant for search

XXXVI Penalty for a master removing or putting on board goods between sunset and sunrise or when the custom house is closed, without leave from collector

XXXVII Export cargo boats without permits not allowed to lie alongside vessels on which customs officers are stationed Goods on such boats, if not covered by a pass, to be liable to confiscation

XXXVIII In the removal of goods from on board any vessel, a boat-note to be sent with each separate despatch Goods liable to confiscation if found without a boat note, or out of the track between the vessel and the proper place of landing

XXXIX Goods brought to be passed through the custom-house, if not corresponding with the description in the application, liable to confiscation

XL Goods liable to confiscation if removed with fraudulent intention after landing, and before passing through the custom-house

XLI Collector of customs may require goods in bulk to be weighed or measured before landing, and levy duty accordingly

XLII Rescinds cap u s xi, of Reg 1, of 1805 of the Madras Code

XLIII Fixes the price to be paid for salt within the Presidency of Madras (See Salt)

XLIV The governor-general in council empowered to grant a remission of this price  
XLV Salt having paid the home consumption price may be landed free at any other Madras port under certificate

XLVI A limited period to be allowed for discharge of import cargo of vessel on which customs officer may be stationed

XLVII A limited period to be allowed for discharging cargo from any vessel without a customs officer on board, goods remaining on board after period allowed, to be landed and warehoused by order of collector Customs' collector, with consent of master of vessel, may cause any packages to be deposited in the government warehouses. The collector empowered to sell goods if not cleared from custom-house within period specified

XLVIII Limited period to be allowed for putting export cargo on board of any vessel

XLIX A penalty for putting goods on board a vessel after customs' officer's removal therefrom, and before a customs' officer has again been placed thereon

L A port clearance to be granted to the master of every vessel on certificate of all public demands against him having been satisfied

LI Rules to be given for levying duty on goods passed through custom house for shipment after grant of port-clearance

LII Cargo of vessels putting back from stress of weather, or damage and compelled to re-land cargo, to be taken charge of by customs officers, and lodged in such place as the collector may direct Penalty for a master putting back into port without goods on which drawback has been allowed

LIII Duty on goods re-landed before the lading is complete to be refunded, but not after grant of port clearance, unless the vessel have put back for stress of weather or damage

LIV Penalty on coasting and country craft for contravening such rules as governor in council may lay down for their regulation

LV Native craft to be treated like coasting craft of the British territories

LVI No drawback allowed on goods shipped on such native craft

LVII Goods re-exported in the same vessel not subject to duty, duty to be levied on transhipped goods as if they had been landed and re-exported

LVIII Goods to be liable to confiscation if transhipped without special licence from collector

LIX Customs' officer to superintend transhipment

LX The collector competent to adjudge confiscations

LXI The collector may exact payment of dues before granting port clearance

LXII Empowers collectors of customs to decide upon cases of seizure, and to adjudicate damages To mitigate penalty of confiscation to the extent of the levy of double duty and to distribute part proceeds of sale of confiscated goods in rewards among seizing officers

LXIII All officers of customs amenable to civil courts

LXIV Penalty for obstructing customs officers in the exercise of their powers

LXV Penalty for customs officer receiving consideration for doing or forbearing any official act

LXVI Penalty for a customs officer concerned in defrauding the customs revenue

LXVII Penalty for exacting customs or duties without authority as a customs officer

LXVIII The Governor in Council may transfer the powers of collector of customs to any other officer and may make rules and appoint officers to carry this Act into effect, and fix rates of wharfage and rent

TARIFF, SCHEDULE A—RATES of Duty to be charged on Goods Imported by Sea into any Port of the Presidency of Fort St George

Number	ENUMERATION OF GOODS	When Imported on British Bottoms.	When Imported on Foreign Bottoms
1	Bull and cow	free	free
2	Precious stones and pearls	ditto	ditto
3	Grain and pulse, other than rice and paddy	ditto	ditto.
4	Rice and paddy	2 annas per bag not exceeding 2 maunds of 80 tolas to the seer or if imported otherwise than in bags 1 anna per maund	4 annas per bag not exceeding 2 maunds of 80 tolas to the seer or if imported otherwise than in bags 3 annas per maund
5	Horses and other living animals	free	free
6	Iron	ditto	ditto
7	Lead coils bricks chalk stones marble and wrought stone (excepted)	ditto	ditto
8	Books printed in the United Kingdom or in any British possession	ditto	3 per cent.
9	Foreign boots	3 per cent	3 per cent
10	Wine to be, the produce or manufacture of the United Kingdom or any British possession	3 per cent	6 per cent
11	Ditto ditto the produce or manufacture of any other place or country	6 per cent	12 per cent.
12	Woolen or cotton unwrought the produce or manufacture of the United Kingdom or any British possession	3 per cent	6 per cent.
13	Metallic articles excepting tin the produce or manufacture of any other place	6 per cent	12 per cent
14	The produce of any other place than the United Kingdom or any British possession	10 per cent	20 per cent
15	Wine of any British possession	2 per cent	4 per cent.
16	Ditto the produce of any other place or country	4 per cent	8 per cent
17	Cotton wool not covered by certificate of the payment of export duty at any other port of Fort St George	9 annas per maund of 80 tolas to the seer	1 rupee 2 annas per maund of 80 tolas to the seer
18	Cotton and silk piece goods cotton twist and yarn the produce of the United Kingdom or any British possession	34 per cent	7 per cent
19	Ditto the produce of any other place	7 per cent.	14 per cent
20	Opium	24 rupees per seer of 50 tolas	4 rupees per seer of 80 tolas
21	Salt	3 rupees per maund of 80 tolas to the seer	3 rupees per maund of 80 tolas per seer
22	Alum	10 per cent	20 per cent
23	Woolen or cotton goods not boiled	10 per cent	20 per cent
24	Woolen or cotton goods	10 per cent	20 per cent
25	Woolen or cotton goods	10 per cent	20 per cent
26	Woolen or cotton goods	10 per cent	20 per cent
27	Woolen or cotton goods	10 per cent	20 per cent
28	Woolen or cotton goods	10 per cent	20 per cent
29	Woolen or cotton goods	10 per cent	20 per cent
30	Woolen or cotton goods	10 per cent	20 per cent
31	Woolen or cotton goods	10 per cent	20 per cent
32	Woolen or cotton goods	10 per cent	20 per cent
33	Woolen or cotton goods	10 per cent	20 per cent
34	Woolen or cotton goods	10 per cent	20 per cent
35	Woolen or cotton goods	10 per cent	20 per cent
36	Woolen or cotton goods	10 per cent	20 per cent
37	Tobacco	10 per cent	20 per cent
	All articles not herein listed in the above enumeration	34 per cent	7 per cent

And if the collector of customs shall see reason to doubt whether the goods liable to a different rate of duty according to the place of their production come from the country from which they are declared to come by the importer, it shall be lawful for the collector of customs to call on the importer to furnish evidence as to the place of manufacture or production, and if such evidence shall not satisfy the said collector of the truth of the declaration, the goods shall be charged with the highest rate of duty, subject always to an appeal to the governor in council of Fort St. George.

And upon the re-export by sea of goods imported, excepting opium and salt, and all goods of the growth, production, or manufacture of the continent of India, provided the re-export be made within two years of the date of import as per custom-house register, and the goods be identified to the satisfaction of the collector of customs there shall be retained one eighth of the amount of duty levied, and the remainder shall be repaid as drawback.

But no exporter of imported goods shall be entitled to drawback, unless the drawback be claimed at the time of re-export, nor shall any payment be made of drawback unless the amount claimed be demanded within one year from the date of entry of the goods for re-export in the custom house register.

TARIFF, SCHEDULE B—RATES of Duty to be charged on Goods Exported by Sea from any Port or Place in the Presidency of Fort St. George

Number	ENUMERATION OF GOODS	Exported on British Bottoms	Exported on Foreign Bottoms
1	Bolton and coin	free	free
2	Precious stones and pearls	ditto	ditto
3	Books maps and drawings printed in India	ditto	ditto
4	Hornes and living animals	ditto	ditto
5	Cotton wool exported to Europe the United States of America or any British possession in America.	ditto	9 annas per maund of 80 tolas to the seer
6	Ditto, ditto, exported to places other than above	3 annas per maund of 80 tolas to the seer	1 rupee 2 annas per maund of 80 tolas to the seer
7	Sugar and rum exported to the United Kingdom or to any British possession not being a British possession or settlement on the continent of India including Bombay	free	3 per cent
8	Ditto ditto exported to any other place including any British possession or settlement on the continent of India including Bombay	3 per cent.	6 per cent
9	Grain and pulse of all sorts other than rice and paddy	1 anna per bag not exceeding 3 maunds of 80 tolas to the seer or if exported otherwise than in bags 1/2 an anna per maund	2 annas per bag not exceeding 2 maunds of 80 tolas to the seer or if exported otherwise than in bags 1/2 anna per maund
10	Rice and paddy	1/2 annas per bag as above or one anna per maund.	4 annas per bag as above or 2 annas per maund
11	Indigo	3 rupees per maund of 80 tolas to the seer	1 rupee 6 annas per maund of 80 tolas to the seer
12	Salt, having paid the price fixed to be paid on salt declared for exportation to ports or places not being subordinate to the Presidency of Fort St. George	free	free
13	Tobacco	10 per cent.	20 per cent.
14	Opium not covered by a pass All articles not included in the above enumeration	prohibited 5 per cent	prohibited 6 per cent

And upon the re-export to Europe, the United States of America, or to any British possession in America, from Madras, or from any other port of the Presidency of Fort St. George, of cotton that has been imported under certificate of the payment of the duty specified in this schedule, provided that the re-export be made in British bottoms, within two years from the date of such certificate, and the amount be claimed within one year from the date of re-export as per custom-house registers, the whole amount of export duty levied at the first place of export shall be refunded.

MANIFEST, SCHEDULE C — MANIFEST of Goods imported per  
under colour viz Commander, from

Mark	Numbers	Packages	Quantity	Weight		Yards	Description of Goods	In once Value		Tariff Value	
				Weight	Galla						
A	1 a 5	3 cases	250 pieces			3300	Cambrics Long 1 1/2 bleached Long cloth unbleached Madraspooram bleached Ditto unbleached Lain muslins				

N B Articles generally to be specified, excepting such as ironmongery, hardware, glass ware earthenware cutlery, perfumery confectionery, stationery and such like All articles from Great Britain to be entered according to the English weight, not native

From China in like manner in China weights

In imports or exports of bullion or coin, to specify the sort of which they consist

*Act No XV of the Governor-General of India in Council, on the 6th of July, 1844, for amending the Schedules of Import Duties annexed to Act XIV of 1836, to Act I of 1838 and to Act VI of 1844*

Whereas by Article XVII of Schedule A annexed to Act No XIV of 1836, by Article XVIII of Schedule A annexed to Act No I of 1838, and by Article XIX of Schedule A annexed to Act No VI of 1844 certain rates of duty are to be charged on the importation into the ports of Bengal and Orissa, and the ports subject to the presidencies of Bombay and Madras of cotton and silk piece goods, the produce of any place other than the United Kingdom or any British possession, and whereas it is expedient that the same rates of duties should be charged on other foreign goods of a like description

It is hereby enacted that from and after the 1st day of January, 1845 the rates of duty prescribed for the said articles by the said schedules shall be charged on the importation into the ports of Bengal and Orissa, and the ports subject to the presidencies of Madras and Bombay of all manufactures of silk or cotton and of silk and cotton mixed with any other material which are the produce of any place other than the United Kingdom or any British possession, and of all foreign made up articles of the said manufactures or of which any part of the materials is of the said manufactures

*Act No XVI of the Governor-General of India in Council, on the 27th of July, 1844 for increasing the Excise and Import Duties heretofore payable to the Government on Salt manufactured within or imported into the Territories subject to the Government of the Presidency of Bombay*

Whereas by Act VI of 1844, all inland, transit, and town duties levied on behalf of the Government of the East India Company within the limits of the territories subordinate to the Presidency of Fort St George were abolished, and the impost on salt manufactured and sold within the said territories was raised to a rate more in accordance with the tax on the same article borne by other divisions of the British possessions and whereas although inquiries which have been instituted as to the origin and extent of certain town duties and local cesses within the Presidency of Bombay, with a view to their abolition, have not yet been completed it is nevertheless expedient, in order to equalise the average prices of salt within the Presidencies of Fort St George and Bombay to increase as well the customs duty on imported salt as the excise duty heretofore and at present payable on salt that may be delivered from any salt work within the territories subject to the government of the Presidency of Bombay

I It is hereby enacted, that from the 1st day of September, 1844, Section I of Act XXVII of 1837 shall be repealed

II And it is hereby enacted, that from the 1st day of September, 1844 there shall be paid to the government on every maund of 3200 tolas' weight of salt that may be

delivered from any salt-work within the territories subject to the government of the Presidency of Bombay a duty of one Company's rupee

III And it is hereby enacted, that section 43 of Act I of 1838, shall be repealed

IV And it is hereby enacted, that on application by the exporter from any port of the Presidency of Bombay of any salt that has paid the excise duty fixed by Section II. of this Act a certificate shall be granted by the collector of customs at the place of export, under authority of which certificate the quantity of salt specified therein shall be landed at any other port of the said Presidency of Bombay, and shall be passed from such port into the interior, under cover of the passes applicable to the free passage of salt without the levy of any further duty either of excise or customs

V And it is hereby enacted, that so much of Schedule A appended to Act I of 1838 as provides that on salt imported by sea into any port of the Presidency of Bombay and not covered by a pass, there shall be levied a duty of eight annas per maund of eighty tolas per seer and so much of Schedule B appended to Act I of 1838 as provides that salt having paid the excise duty of eight annas a maund shall be permitted to be exported free of duty from any port or place in the Presidency of Bombay, shall be repealed

VI And it is hereby enacted, that on salt imported by sea into any port of the Presidency of Bombay, and not covered by a pass, there shall be levied a duty of one Company's rupee per maund of 3200 tolas weight, and that salt having paid the excise duty of one Company's rupee per maund shall be permitted to be exported free from further duty from any port of the Presidency of Bombay

*Act No IX of the Governor-General of India in Council, on the 17th of May, 1845, for amending the Schedules of Import Duties annexed to Act XIV of 1836, to Act I of 1838, and to Act VI of 1844, and for repealing Act XV of 1844*

I It is hereby enacted, that from and after the 1st day of June, 1845, so much of Schedule A annexed to Act XIV of 1836, so much of Schedule A annexed to Act I of 1838, and so much of Schedule A annexed to Act VI of 1844, as relates to the rates of duty to be charged on the goods next hereinafter specified be repealed

Marine stores, the produce or manufacture of the United Kingdom or of any British possession

Marine stores, the produce of any other place or country

Metals wrought or unwrought, the produce or manufacture of the United Kingdom or of any British possession

Metals wrought or unwrought, excepting tin, the produce or manufacture of any other place

Woolens, the produce or manufacture of the United Kingdom or of any British possession

Woolens, the produce of any other place or country

Cotton and silk piece goods, cotton twist and yarn, the produce of the United Kingdom or of any British possession

Cotton and silk piece goods, cotton twist and yarn, the produce of any other place

Wines and liqueurs

Spirits

All manufactured articles, not included in the enumeration contained in the said schedules

II And it is hereby enacted, that from and after the said 1st day of June, 1845 all the provisions of the three above mentioned Acts which have reference to so much of the Schedules A to those Acts respectively annexed as is repealed by this Act, shall from and after the said day be taken to have reference to the schedule annexed to this Act, as if the schedule annexed to this Act had been part of each of the Schedules A, above-mentioned

III And it is hereby enacted, that Act XV of 1844, intitled, "An Act for amending the Schedules of Import Duties annexed to Act XIV of 1836, to Act I of 1838, and to Act VI of 1844, be repealed

TARIFF SCHEDULE—RATES of Duty to be charged on the following Goods Imported by Sea into any Port of the Presidencies of Fort William in Bengal, Bombay, or Fort St. George.

ENUMERATION OF GOODS	When imported on British Bottoms	When imported on Foreign Bottoms
Machinery the produce or manufacture of the United Kingdom or any British possession	5 per cent	10 per cent
Machinery the produce or manufacture of any other place or country	10 per cent	20 per cent
Machinery wrought or manufactured in the United Kingdom or any British possession	5 per cent	10 per cent
Machinery the produce or manufacture of any other place or any British possession	10 per cent	20 per cent
Woolens the produce of any other place or country	5 per cent	10 per cent
Cotton and silk piece goods and all manufactures of cotton or silk printed, dyed, or otherwise treated with any oil or material the produce of the United Kingdom or of any British possession	10 per cent	20 per cent
Distilleries the produce of any other place	8 per cent	11 per cent
Cattle and live animals and their produce of the United Kingdom or of any British possession	10 per cent	20 per cent
Dates the produce of any other place	3 per cent	7 per cent
Wine and liquor	7 per cent	14 per cent
Beer and ale	5 per cent	10 per cent
And the duty on spirits shall be rateably increased as the strength exceeds London proof and when measured in bottle one quart bottle shall be deemed equal to the imperial gallon	1 rupee per imperial gallon or 2 rupees per imperial gallon	2 rupees per imperial gallon or 4 rupees per imperial gallon
All manufactures of glass	5 per cent	10 per cent

*A Regulation relating to the Trade of Foreign Ships with India*

Whereas a regulation was made and passed by the Court of Directors of the East India Company and transmitted to India by a despatch, dated the 28th day of July, 1837, and promulgated by the supreme government on the 29th day of December, 1837, for rescinding and re-enacting with modifications, certain provisions contained in a regulation made and passed by the said Court of Directors on the 12th of August, 1829 for regulating the trade of foreign nations with the ports and settlements of the British nation in the East Indies and whereas doubts have arisen as to the true intent and meaning of certain parts of such regulation, and it is expedient that such doubts should be removed the Court of Directors of the said Company by virtue of the powers granted to them by the Act passed in the 37th year of the reign of his late Majesty King George the Third, intitled An Act for regulating the Trade to be carried on with the British Possessions in India by the Ships of Nations in Amity with His Majesty, have rescinded the whole of the said regulation and in lieu thereof have framed the following regulation

Foreign ships belonging to any state or country in Europe, or in America so long as such states or countries respectively remain in amity with her Majesty, may freely enter the British sea ports and harbours in the East Indies, whether they come directly from their own country or from any other place, and shall be there hospitably received, and shall have liberty to trade there in imports and exports conformably to the regulations established or to be established in such sea-ports, provided that it shall not be lawful for the said ships to receive goods on board at one British port of India to be conveyed to another British port of India, on freight or otherwise, but, nevertheless, the original inward cargoes of such ships may be discharged at different British ports and the outward cargoes of such ships may be laden at different British ports for their foreign destinations, and provided further that it shall not be lawful for the said ships in time of war between the British government and any state or power whatsoever, to export from the said British territories without the special permission of the British government, any naval or military stores, saltpetre, or grain

(Signed) J P GRANT,  
Officiating Secretary to the Government of India

( See hereafter Modifications regarding Imports in Foreign Ships )

*Fort William, General Department, 30th of November, 1836*

The Right Honourable the Governor-General of India in Council, under the powers conferred upon him by the 3rd section of the Act 6 & 7 Will IV c 27, is pleased to appoint and direct that it shall be lawful to import into any of the districts provinces, and places hereinafter mentioned, foreign sugar, or sugar the growth of any British possessions into which foreign sugar can be legally imported, and to except the same from the operation of the prohibition contained in the said clause of the said Act, viz—

1 The settlements of Singapore, Malacca, and Prince of Wales Island, and their respective dependencies

2 The settlements of the Tenasserim coast

3 The province of Arracan, with its dependencies the islands of Rimree and Cheduba

By order of the Right Honourable the Governor-General of India in Council

(Signed)

H T PRINSEP,

Secretary to Government.

*Fort William, Home Department, Separate Revenue, 1st of March, 1845*

The Right Honourable the Governor General in Council is pleased to direct the publication of the following resolution—

*Resolution*—The Right Honourable the Governor General in Council is pleased to resolve, that so much of the resolution of the government of India, dated the 30th of November, 1836 as excepted the settlement of Prince of Wales Island and Province Wellesley from the operation of the prohibition contained in the 3rd section of the Act 6 & 7 Will IV c 26 and made it lawful to import therein foreign sugar, or sugar the growth of any British possessions into which foreign sugar can be legally imported, be cancelled, and the permission thereby given to import such sugars into the settlement of Prince of Wales Island and Province Wellesley, is accordingly hereby rescinded

*Fort William, General Department, 14th of June, 1837*

Under the authority conveyed to the Governor General of India in Council by Act No XIV of 1837, it is hereby directed, that goods imported into Calcutta, in the vessels of any of the states and territories hereinafter mentioned, in which British vessels are received and treated on terms as favourable as native vessels, and likewise goods exported from the port of Calcutta in the vessels of such states and territories, shall be treated and dealt with in all respects as goods imported and exported in British bottoms

1 The ports of Arabia and of the Persian Gulf,

2 Ports in the Red Sea belonging to the ruler of Egypt, and

3 The dominions of the King of Ava.

*Fort William, Separate Department, 9th of January, 1839*

Under the authority conveyed to the Governor General of India in Council by Act No XIV of 1837 it is hereby directed, that goods imported into the several ports of the Presidency of Bombay, in the vessels of any of the states and territories hereinafter mentioned in which British vessels are received and treated on terms as favourable as native vessels, and likewise goods exported from the ports of Bombay in the vessels of such states and territories shall be treated and dealt with in all respects as goods imported and exported in British bottoms

1 The ports of Arabia and of the Persian Gulf,

2 Ports in the Red Sea belonging to the ruler of Egypt, and

3 The dominions of the King of Ava



## NOTIFICATION

The Right Honourable the Governor of Bengal with the concurrence of the Supreme Government of India has been pleased to determine that from and after the 11th of November 1844, the rate of duty to be charged on salt imported by sea into any part of the Presidency of Fort William in Bengal shall be three Company's rupees on every maund of 3200 tolas

From and after the same date, the whole of the salt in store at the different depôts, will be available to the public at the following wholesale prices

Name of Depôt.	Price per 100 Maunds	Name of Depôt	Price per 100 Maunds
	rupees.		rupees
Hidpellee —		Chittagong —	
Kalcutta	275	Suddi r Ghat and Doompah	267
Kishoree	370	A rakan salt	282
Tripura	750	Sulka —	
Rangpur	360	Cuttack	413
Tripura —		Kisoreah	419
Narainpore	353	B lasore.	418
Twenty four Pergunnah —		Chilka	424
Narainpore	393	Madras Kerkutch	365
		1st quality	362
		2nd ditto	360
		3d ditto	360

The government reserves to itself the power of re imposing the full amount of duty authorised by law, should circumstances arise to render such a measure necessary but no alteration whatever will be made either in the duty now fixed on imported salt, or in the prices to be paid for salt sold by wholesale on account of government before the 1st of August 1845

Collectors of the land revenue and all officers of the government in fiscal charge of districts, are hereby directed to make known the substance of this notification as widely as possible throughout their several jurisdictions

The Board of Customs Salt, and Opium, will issue the necessary instructions to their subordinates in the salt and customs departments

## NOTIFICATION

The Government of India having directed, with reference to a despatch from the Honourable the Court of Directors, dated the 3rd of July last, that the excise and import duty payable under Act XVI of 1844 on salt manufactured within or imported into the territories subject to the government of the Presidency of Bombay, shall be reduced from one rupee to twelve annas per maund of 3200 tolas the Honourable the Governor in Council is pleased to notify that the said excise and import duty is hereby reduced accordingly

Bombay Castle, 14th of September, 1844

*To the Board of Customs, Salt, and Opium, dated the 12th of June, 1843*

Gentlemen,

I am directed by the Honourable the Deputy-Governor of Bengal to transmit to you the annexed extract (paragraphs 3 and 4) of a despatch from the Honourable the Court of Directors, dated the 5th of April, 1843, No 2, and to request that your Board will be pleased to issue the necessary orders for discontinuing the collection of the duty charged upon tea, the manufacture of this country, and exported on British bottoms to the United Kingdom

Fort William  
12th of June, 1843

I have, &c,  
(Signed)

C BEADON  
Under secretary to the Government of Bengal

*Extract from a Letter from the Honourable the Court of Directors, dated the 5th of April, 1843, No 2*

*Paragraph 3* It has been represented to us, that the three per cent export duty levied on the Assam tea at Calcutta operates as a hardship

4 We are of opinion, that for the present at least, the levying of this duty might be discontinued, and we accordingly authorise you on the receipt of this despatch, to give the necessary directions for discontinuing the collection of the rates charged upon tea, the manufacture of the country, and exported on British bottoms to the United Kingdom

*Fort William Home Department, 28th of June, 1845*

#### NOTIFICATION

The Right Honourable the Governor general of India in Council deeming it right that every encouragement should be given to the importation of machinery into India, both for the improvement of the communications and for the development of the commercial resources of the country, is pleased to resolve that machinery and plate iron prepared for the hulls of steamers be from this date, exempt from the payment of duties of customs on importation into the territories of the East India Company, until further notice

*Fort St George, 27th of June, 1844*

Under the decision of Her Majesty's Government, communicated to this government by the Honourable the Court of Directors, the Most Noble the Governor in Council is pleased to declare, that the produce of Mysore will be treated in the United Kingdom and in India as that of a British possession, and he accordingly directs that all orders which have been issued for prohibiting the admission of sugar, the produce of the Mysore territories, into the provinces of this presidency, be withdrawn

*Fort William Separate Department (Customs), 17th of November, 1842*

#### NOTIFICATION

The following forms are prescribed to be in force and effect from and after the 1st of January, 1843, for the export of cotton or cotton wool free of duty to the United Kingdom, from any port of the East India Company's possessions in India, indirectly through a port of Ceylon

Under declaration by an exporter of cotton from any port of British India in a ship or vessel bound to a warehousing port of Ceylon, that the cotton is there intended to be re-shipped for the United Kingdom, the amount of duty leviable thereupon under any law in force at the place of exportation, shall be taken in a bond signed by known householders of such place of export, the condition of which bonds shall be, that the amount of duty shall be paid in full at the end of six months from the date, unless there shall be produced a certificate from the customs collector of the port of Ceylon, to which the vessel is bound, declaring the cotton so exported to have been shipped for Great Britain, or for some port of Europe in a British ship, of which the name and captain a name shall be stated

And such certificate shall be written by the Ceylon collector of customs on the face of a pass-note to be given to the first exporter by the collector of customs at the Indian port of export, which pass note shall describe the article and its mode of packing, marks, and numbers, and shall state the quantity and quality, and the name of the shipper and consignee of the goods, and the certificate of re export to the United Kingdom shall contain a declaration of the identity of the article re exported with that described in the pass-note

## COMMERCIAL REGULATIONS OF CALCUTTA

CALCUTTA, the capital of British India, is situated on the eastern banks of the Hooghly, latitude 22 deg 34 min 48 sec N, longitude 88 deg 27 min 18 sec E. The city and suburbs extend along the banks for about five miles and, from the water, the appearance, though low, is imposing, and the approach upwards is rendered interesting by villas and other residences. The city is about 100 miles distant from the sea, and from the Sandheads a most intricate navigation commences among the banks of shifting sand and mud. The population is variously estimated, by some as high as nearly one million, a most gross exaggeration. It is very conveniently situated for internal trade, by the Ganges and its tributary rivers and streams, to the north-west provinces. Diamond Harbour, about thirty miles below Calcutta, and also on the east side of the Hooghly, has a sufficient draught of water for the largest ships. Vessels of 600 tons anchor close to the Strand road, or Esplanade promenade of Calcutta.

This city was in 1717, a straggling village of less than twenty huts, it has now for some time been named a city of palaces, and is divided into streets crossing each other at right angles, with handsome squares each having in the centre an open tank or reservoir of the Ganges water, with sloping banks planted with evergreens, &c. The residence of the governors general was constructed under the administration of the Marquis Wellesley, and is described as of imposing magnificence.

Fort William was commenced by Lord Clive, after the battle of Plassy, and is said to have cost the East India Company about 2,000,000/ sterling. It is situated close to the river, a little below the city, and on a level with the surrounding flat country. It is the strongest and most regular fortress in India. The form is octagon, five sides being regular, and the three next the river adapted to the circumstances of defence. The river flows close to the glacis, the citadel with its large salient angle, effectually commands the approaches. Altogether, even Vauban could not have designed a more formidable stronghold, with its dikes, trenches, and outworks, though from the lowness of its site, its appearance has nothing indicative of strength.

In 1822, the population of the city proper of Calcutta was stated to be 13,138 Christians, 48,162 Mahomedans, 118,208 Hindoos, 414 Chinese, total 179,917. In 1837, the whole amounted to 229,700 inhabitants, including Erastians, or the children of white fathers and native mothers. It is remarkable that there were at that time as many Portuguese as English, viz, 1715 male, and 1475 female Portuguese, total 3190, and 1953 male, and 1186 female English, total 3138 English. The population of the suburbs live chiefly in huts.

The principal merchants are British, Portuguese (the latter chiefly born in India), and a few other Europeans Parsees, Hindoos, Mahomedans, Armenians, who have greatly increased, and several Jews The Scroor and Baboo brokers are chiefly, if not all, Hindoos The press of Calcutta publish periodicals, almanacs, registers, newspapers, &c

DISTANCES FROM CALCUTTA IN BRITISH MILES TO THE FOLLOWING PLACES

Adoni, S W	1080	Cashmere (capital of)	1564	Madras S W	1037
Agra, W N W	796	N W	251	Madura S W	1360
Ajmere W N W	1035	Cuttack S W	628	Mangalore	1335
Allahabad, W N W	498	Cawnpore, W N W	686	Masulipatam, S W	797
Allyghur	816	Chatterpour W N W	1079	Midnapore W	69
Almorah	898	Chetter, W N W	348	Mirzapore, N W	455
Astedabad, W	121	Chittagong E	1175	Monghyr, N W	364
Amednuggur, W	1083	Chittledroog	432	Mootheadabad N	118
Anjengo, S W	1577	Chunar W N W	498	Muttra, W N W	818
Aracan, S E	5519	Chicacole, S W	1441	Mysore S W	1246
Arcot, S W	1085	Codfun	1770	Nagpour W	677
Ava E	1150	Comorin Cape S W	655	Napaul N N W	560
Aurungabad, W	968	Corah W N W	1007	Narwah W N W	817
Azinghur	475	Cuddjapa	187	Nusseerabad	1018
Backergunge	183	Dacca, N E	299	Ootacamund	1342
Bahr N W	297	Dharwar	1900	Ongole S W	873
Batool	789	Deesa	900	Oude, N W	562
Balsore, S W	143	Delhi N W	259	Patna, N W	369
Bancoora	101	Dinapore N	376	Pondicherry S W	1157
Banda	618	Dinapore N W	796	Poonah W S W	1107
Bangalore	1161	Ellichpore W	748	Purneah, N W	282
Banleah	145	Ellore S W	719	Rajahmundry S W	690
Bareilly, W N W	782	Etawah W N W	1161	Ramghaut, N W	879
Barrackpore	221	Ferozepore	711	Ruttumpour, W	493
Basseen, W	980	Futteghur N W	580	Salem	1221
Beder W N W	1290	Futypore	382	Samulcoota	664
Bednore N W	127	Ganjam S W	431	Saugur S W	742
Beerhoom N W	1090	Ghazee-pore, N W	907	Sattarah, S S W	1180
Bellary	428	Goa, W S W	1359	Seetapore	671
Benares W N W	1824	Golconda S W	925	Seringapatam, S W	1236
Bhooy	905	Gorruckpore	807	Sholapore	1162
Bijnore	1120	Cuntoor	782	Sidy, or Tatta W	1602
Bisnagur, S W	1228	Gwalior, W N W	995	Srong W	849
Broach W	266	Hanse	864	Sumbulpour W S W	309
Broglapore N W N	1180	Hussingabad Ghaut, W	972	Surat, W	1298
Bombay W	848	Hydrabad W S W	976	Sylhet N E	332
Bhopal, W	75	Indore W	975	Tanjore, S W	1277
Burdwan	446	Jaypore, W N W	932	Tannah	1198
Buxar N W	1815	Jaulnah	466	Tellicherry	1307
Cabul N W	1018	Juanpore	301	Trichuopoly, S W	1254
Calberga W S W	480	Jumulpore	1204	Vellore	1100
Catingapatam S W	657	Kaira	1356	Vingorla	1370
Calpee W N W	1253	Lahore N W	800	Vizagapatam S W	557
Canbay W	2047	Lassa, N N E	640	Viznapoli W S W	1183
Candahar N W	824	Lucknow, N W		Vellore	1160
Canoge, W N W					

MONEYS, WEIGHTS, AND MEASURES

Accounts throughout Bengal are kept in Company's rupees to which standard all current species must be reduced for entries in merchants books, or payments to the government departments

## TABLE OF MONEY

4 Cowries	1 Gunda	16 Annas	1 Co s rupee
20 Gundas	1 Punn	16 Co s }	rupees
5 Punn or 12 pice	1 Anna	15 Sica	

The first three denominations gradually disappearing are used for small payments amongst the natives

100 000 Rs are a lac and 100 lacs or 10 000 000 Rs a crore

WEIGHTS—Besides the standard, or new bazar weights of British India, the following are also in use, viz—

FACTORY WEIGHTS		OLD BAZAR WEIGHTS—
5 tolas = 1 chittak = 1 oz 13½ dr		Are 10 per cent heavier than the factory weights
16 chitt. = 1 seer = 1 lb 13 oz 14 dr		the maund being 82 lb 2 oz 2 dr
40 seers = 1 maund = 74 lb 10 oz 10½ dr		

For equalising the value of factory and standard weights—

Deduct one-eleventh from the weight in factory maunds, seers and chittaks, and the result will be the weight in new bazar maunds seers and chittaks

Add 10 per cent to the price per factory maund, &c &c and the result will be the price per British India or bazar maund &c &c

In Calcutta some articles are quoted at *Company's rupees per maund* others at *'sicca rupees per bazar maund* others at *sicca rupees per factory maund* and others again at *current rupees per factory maund* the current rupee being an imaginary money of which 116 are assumed equal to 100 sicca The same article is often estimated in a different scale from different places thus, Radnagore and Bauleah silk are sold per bazar seer while Kasimbazar and Gonatea silk per factory seer Tin iron verdigris Japan and English copper per sicca rupees and factory maund steel zinc lead mercury and South American copper per current rupees and factory maund Gum Benjamin is sold by factory all other gums by bazar weight stick lac by the former but shell lac and lac dye by the latter Saltpetre indigo silk the produce of the Straits and metals are the principal articles sold by the factory maund while gum sugar, most articles of food, and all of retail bazar consumption are sold by the bazar weight

WEIGHTS and Measures of India compared with those of Avordupois Bengal Factory Madras, and Bombay Weights

DENOMINATION	Avordupois	Bengal Factory Maunds	Madras Maunds	Bombay Maunds
	lbs oz dr	mds s cb	mds vis pol	mds s pic
Batavia pecul of 100 catties	135 10 0	1 32 10	6 3 16	4 33 22 4
Bazar 1 factory maund	4 10 10 7	1 0 0	2 7 33 7	2 26 30
— bazar maund	82 2 3 1	1 4 0	3 2 11 3	3 37 10
Bombay anly	560 0 0	7 20 0	22 3 0	20 0 0
Cl a p al	30 0 0	0 16 1 1	1 1 24	1 2 25 7
Cochin cady	123 5 5 3	1 31 6	5 2 20	4 20 14 3
Candar s bazar candy	542 8 0	7 11 3 6	21 5 30 8	10 16 12 0
Conar s bazar candy	7 8 0	0 4 0	0 3 16	0 10 21 4
Cona candy	178 0 0	6 25 2 9	10 0 10	17 27 4 3
M l a anly	500 0 0	6 28 0	20 0 0	17 34 8 6
M l c a bazar	405 0 0	5 16 15	19 1 24	14 18 17 1
Mysore anly	200 0 0	7 20 0	22 3 8 6	20 0 0
P u o canly	500 0 0	6 28 0	20 0 0	17 34 8 6
P u g pecul	123 5 5 3	1 31 6	5 2 26	4 20 14 3
Sur t maund	37 6 5 3	0 30 0	1 3 37 9	1 13 10
— Pucca in maund	74 10 10 7	1 0 0	2 7 33 7	2 26 20
T Bicterry d	600 0 0	8 0 2	24 0 0	31 17 4 3

To estimate the value of some articles in current rupees per factory weight with their equivalents according to the new system, the following rules will suffice viz—Deduct five per cent from the price or value quoted in the current rupees per factory weight, and the result will be its equivalent in sicca rupees per bazar (or new) weight. Or add one and a third per cent to the price or value quoted in current rupees per factory weight and the result will be its equivalent in Furukhabad Madras or Bombay rupees per bazar (or new) weight

The following are local compared with other weights viz—one Bengal factory maund is equal to 2 mds vis and 30 7 pols Madras and 2 mds 20 seers and 30 pice Bombay One bazar maund is equal to 1 md 4 seers Bengal factory 3 mds 2 vis and 11 3 pols Madras and 2 mds 3 seers and 10 pice Bombay weights

## LAND MEASURE

One biglah make	20 cottahs
One cottah or 26 chittak	720 square feet
Eight chittaks or 4 cottah	900
Four chittaks or 1 faahal	180

## CLOTH MEASURE

Three corbe	= 1 unguellie
Three unguellies	= 1 ghieriah
Eight ghieries	= 1 haat or cubit, 18 in
Two haats	= 1 guz, or yard

## CALCULATIONS ON PRODUCE

INDIO, purchased as under per factory maund of 74 lb 10 oz exchange at 2s per rupee will cost in England the annexed prices per lb avoirdupois, apart from all expenses Charges on an average 10 per cent

Rupees per Maund	Rupees per Maund.	Rupees per Maund	Rupees per Maund
100 rupees = $\begin{smallmatrix} s & d \\ 2 & 8 \end{smallmatrix}$ lb	160 rupees = $\begin{smallmatrix} s & d \\ 4 & 4 \end{smallmatrix}$ lb	210 rupees = $\begin{smallmatrix} s & d \\ 5 & 8 \end{smallmatrix}$ lb	260 rupees = $\begin{smallmatrix} s & d \\ 7 & 0 \end{smallmatrix}$ lb
110 " = $\begin{smallmatrix} s & d \\ 2 & 11 \end{smallmatrix}$ "	170 " = $\begin{smallmatrix} s & d \\ 4 & 7 \end{smallmatrix}$ "	220 " = $\begin{smallmatrix} s & d \\ 6 & 11 \end{smallmatrix}$ "	270 " = $\begin{smallmatrix} s & d \\ 7 & 3 \end{smallmatrix}$ "
120 " = $\begin{smallmatrix} s & d \\ 3 & 2 \end{smallmatrix}$ "	180 " = $\begin{smallmatrix} s & d \\ 4 & 10 \end{smallmatrix}$ "	230 " = $\begin{smallmatrix} s & d \\ 6 & 2 \end{smallmatrix}$ "	280 " = $\begin{smallmatrix} s & d \\ 7 & 7 \end{smallmatrix}$ "
130 " = $\begin{smallmatrix} s & d \\ 3 & 6 \end{smallmatrix}$ "	190 " = $\begin{smallmatrix} s & d \\ 5 & 1 \end{smallmatrix}$ "	240 " = $\begin{smallmatrix} s & d \\ 6 & 6 \end{smallmatrix}$ "	290 " = $\begin{smallmatrix} s & d \\ 7 & 10 \end{smallmatrix}$ "
140 " = $\begin{smallmatrix} s & d \\ 3 & 9 \end{smallmatrix}$ "	200 " = $\begin{smallmatrix} s & d \\ 5 & 5 \end{smallmatrix}$ "	250 " = $\begin{smallmatrix} s & d \\ 6 & 9 \end{smallmatrix}$ "	300 " = $\begin{smallmatrix} s & d \\ 8 & 2 \end{smallmatrix}$ "
150 " = $\begin{smallmatrix} s & d \\ 4 & 0 \end{smallmatrix}$ "			

Sugars costing as under per Bazar Maund of 82 lb. 2 oz exchange at 2s per Rupee will stand as above at the annexed prices per cwt. Charges on average 10 per cent.

Silk costing as under per Factory seer of 1 lb 14 oz avoirdupois or very nearly so exchange at 2s per rupee will stand at the annexed prices per lb. Average expenses on silk 10 per cent.

5 rupees per cwt.	$\begin{smallmatrix} s & d \\ 13 & 8 \end{smallmatrix}$	12 rupees per cwt.	$\begin{smallmatrix} s & d \\ 25 & 6 \end{smallmatrix}$	5 rupees per lb	$\begin{smallmatrix} s & d \\ 3 & 4 \end{smallmatrix}$	12 rupees per lb	$\begin{smallmatrix} s & d \\ 13 & 11 \end{smallmatrix}$
6	16 4	14	28 3	6	6 5	14	15 0
7	19 1	15	40 11	7	7 6	15	16 0
8	21 10	16	43 8	8	8 7	16	17 3
9	24 7	17	46 5	9	9 8	17	18 3
10	27 3	18	49 1	10	10 8	18	19 3
11	30 0	19	51 10	11	11 9	19	20 4
12	32 8	20	54 7	12	12 10	20	21 4

BANKS, &c.—The Public companies and associations are Bank of Bengal Union Bank Agra Bank Bank of Western India Calcutta Branch Chamber of Commerce Trade Association, Bonded Warehouse Association Indigo Planters Association and the Assam Tea Company

THE INSURANCE OFFICES are the Bengal Fire Insurance Company Indian Laudable and Mutual and Oriental

MARINE INSURANCE OFFICES—Alliance Company Amicable Company Asiatic Office Atlas Office Bengal Society Calcutta Company Calcutta Office Canton Office Canton Union Society, Commercial Company Equitable Society Globe Office Hindostan Company Hope Company India Company, Ocean Marine Company Oriental Company, Phoenix Company Reliance Office Sun Office Tropic Company Universal Company, each of these had their respective agents in London

The rates of premiums of insurance are about as follows, viz —

To ports in the Red Sea 4 per cent. Europe, north of Great Britain, or Persian Gulf  $3\frac{1}{2}$  per cent. To Europe not north of Great Britain, North and South America (off or arriving at any port on the coast), New South Wales, China (on ships and goods) Madagascar and Bushire, 3 per cent. To *Wampoa*, *Macao* or *Lintin* (on opium and specie) *Manilla* *Java*, *W C Sumatra*, *Bourbon* ( $\frac{1}{2}$  per cent additional for touching at the *Mauritius*) *Columbo*, *Trincomalee*  $2\frac{1}{2}$  per cent. To *St Helena* or the *Cape*  $2\frac{1}{2}$  per cent. To *Malacca*, *Singapore* *Rangoon* *Amherst* *Moulmein* (other parts on the *Tenasserim* coast  $1\frac{1}{2}$  per cent) and *Mauritius*, 3 per cent. To *Bombay* 2 per cent, and from the 1st of April to the 31st of October  $2\frac{1}{2}$  per cent. To *Penang*  $1\frac{1}{2}$  per cent. To *Columbo* or *Trincomalee*  $1\frac{1}{2}$  per cent and from the 1st of April to the 31st of October  $2\frac{1}{2}$  per cent. To *Madras* and *Coast of Coromandel*  $1\frac{1}{2}$  per cent and from the 1st of April to the 31st of October 2 per cent, exclusive of monsoon risk from the 15th of October to the 15th of December for which an extra premium of 1 per cent is charged for each time the vessel touches on the coast

The principal merchants and agents of Calcutta were, before the recent failures—

Messrs Allan Paton and Co Bogshaw and Co Bares, Fielden and C Boyd Beeby and Co Brightman and Co Campbell and Co. Carr Tagore and Co Chappman Griffiths Fulford and Co Carier Lake and Co Cockrell and Co Colville Gilmore and Co Colvin Ainsley Cowie and Co Cracroft Fraser and Co J and M Crooke and Co	Messrs H and A Crooke and Co T De Souza and Co Eglington M Clure and Co Foster Rogers and Co Fraser M Donald and Co S J Fraser and Co Gardiner Thomas Hyde and Co Gillanders Arbuth not and Co Gisborne and Co Gladstone Hay Villie and Co Glass and Co Gunter Grosvenay and Co	Messrs Hamilton and Co Haworth Hardman and Co Hickey Bailey & Co Jamieson and Co Jardine Skinner and Co Kilsbille and Chas Leach Kettlewell and Co Livingstone Syers and Co Lyll Metheron and Co Macintyre and Co Mackenzie Lyall and Co Mackey and Co Mackillop Stewart and Co	Messrs Macleod and Co Nicol, Wilkie and Co Owen Allbosen and Co Purroy and Co Rustonjee Cowas jee and Co Smith Huffnagle and Co Smith Larour and Co Tulloch and Co Turner, Stepford and Co Watson Borradaile and Co Willis and Karto
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*Rates of Agency and Commission*—On the sale, purchase or shipment of bullion jewellery pearls and precious stones 1 per cent On the purchase (when in funds) or sale of indigo, silk and opium 2½ per cent Ditto ditto when funds are provided by the agent 5 per cent On all sales or purchases of other goods 5 per cent On the sale or purchase of ships factories, houses or lands 2½ per cent On returns for consignments if made in produce, 2½ per cent On ditto if in bills bullion or treasure 1 per cent On goods or treasure consigned, and all other property of any description referred to agency for sale, which shall be afterwards with drawn and on goods consigned for conditional delivery to others (on invoice amount at the exchange of 2s per rupee) half com On making advances or procuring loans of money for commercial purposes when the aggregate commission does not exceed 5 per cent, 2½ per cent On guaranteeing bills, bonds and other engagements and on becoming security 2½ per cent On *del credere*, or guaranteeing the realisation of sales 2½ per cent On executorship or administration to estates 3 per cent On management of estates for executors or administrators 2½ per cent On chartering ships or engaging tonnage 2½ per cent On advertising as the agents of owners or commanders of ships for passengers on the amount of passage money whether the same shall pass through the agents hands or not 2½ per cent On procuring freight or advertising as the agent of the owners or commanders the commission to be calculated on the gross amount of the entire freight 5 per cent On effecting insurances or writing orders for the same ½ per cent On settling insurance losses and averages and on procuring returns of premium 2 per cent On purchasing selling or negotiating bills of exchange 1 per cent On debts or other claims when a process at law or arbitration is incurred, 2½ per cent If recovered by such means 3 per cent On bills of exchange returned dishonoured 1 per cent On ship's disbursements, 2½ per cent On negotiating loans on *respondentia*, 2 per cent On granting letters of credit, 1 per cent On the amount debited or credited (at the option of the agent) within the year less the balance brought forward and all items on which a commission of 3 per cent has been charged, 1 per cent On all advances, not punctually liquidated, a second commission may be charged as on a new advance, provided it do not occur within the same year

\*.\* Brokerage when actually paid is considered a separate charge

The chartered Bank of Bengal was instituted in 1806, and chartered three years afterwards, with a capital of fifty lacs of sicca rupees, divided into 500 shares of 10,000 sicca rupees each of which the East India Company held 100 shares, and they rose to a large premium The capital was afterwards increased to above 1,000,000/ sterling, divided into shares of 4000 rupees each, and subdivided into quarter shares It has nine directors, three are appointed by the government, and six elected every three years by the proprietors The secretary to government, in the financial department, the accountant-general, and the sub-treasurer, are the *ex officio* government directors The secretary and treasurer of the bank is also a civil servant of the Company The notes of this bank

are received at all the public offices of Lower Bengal in payment of revenue The government being shareholders, the natives believe it to be a government bank Among the stipulations are,—

"1 The government require a deposit in their treasury of twenty lacs of rupees in Company's paper, as security for the notes received at the public offices and the district treasuries

"By their charter, this bank issue as notes in the proportion of one-third of specie to two thirds of paper—that is to say, for every 900 rupees of notes issued, it must have 300 rupees in cash in deposit"

The Union Bank was founded in 1829 It is the only private bank at present (1848) in Bengal, three banks having some years ago dissolved, but there is a branch of the Union Bank of India at Calcutta There is also a bank at Agra for the North West Provinces

Remittances are to a great extent made from India by advances on exports to England, the goods being held in security by the Company's servants The extent of these advances will appear more fully from the following return of the amount of money yearly remitted to this country by the East India Company on hypothecated goods or produce, for the last ten years, ending on the 31st day of July last.

From August,	To 31st of July	Remitted by Advances on Hypothecated Goods			Remitted by Consignments of Silk (Nett Sale proceeds)			TOTAL		
		£	s	d	£	s	d	£	s	d
1837	1838	1,503,619	4	3	122,037	12	4	1,625,656	16	7
1838	1839	751,035	1	6	66,394	7	10	817,429	9	4
1839	1840	1,009,831	17	6			3,000,933	17	5	
1840	1841	1,409,928	16	1			1,271,802	16	1	
1841	1842	385,959	11	9			305,359	11	9	
1842	1843	586,128	13	11			585,138	13	11	
1843	1844	1,27,466	6	0			13,169	6	0	
1844	1845	647,208	16	10			637,404	16	10	
1845	1846	631,827	18	2			521,827	18	2	
1846	1847	1,989,650	8	1			2,268,626	8	1	

RATES of Freight for Dead Weight (say Sugar), per Ton of 20 cwt, from Calcutta to London, for the following Six Years were each month—

MONTHS	1840-41		1841-42		1842-43		1843-44		1844-45		1845-46	
	£	s	£	s	£	s	£	s	£	s	£	s
May	6 10 0	to 6 10 0	6 0 0	to 6 0 0	5 15 0	to 5 15 0	5 7 6	to 5 10 0	5 15 0	to 5 15 0	4 17 6	to 5 3 6
June	6 10 0	6 10 0	4 4 0	4 10 0	3 5 0	3 10 0	3 10 0	3 10 0	4 7 8	4 10 0	4 15 0	4 0 0
July	6 10 0	6 15 0	3 10 0	4 0 0	2 10 0	2 10 0	3 10 0	3 15 0	5 0 0	5 0 0	3 0 0	5 3 0
August	6 10 0	6 15 0	3 6 0	3 10 0	2 0 0	2 0 0	4 4 0	4 7 6	4 15 0	5 0 0	5 0 0	5 3 0
September	6 0 0	6 0 0	2 10 0	2 15 6	2 0 0	2 0 0	3 15 0	3 15 0	4 10 0	4 12 6	5 6 0	5 7 6
October	5 15 6	6 0 0	2 5 0	2 15 0	2 0 0	2 0 0	3 5 0	3 10 0	4 15 0	4 15 0	5 5 0	5 7 6
November	5 10 0	5 15 6	2 15 0	3 0 0	3 6 0	3 6 0	3 5 0	3 5 0	4 7 6	4 7 6	4 5 0	4 10 0
December	5 5 0	5 10 0	2 15 0	3 0 0	3 15 0	4 0 0	3 0 0	3 5 0	4 5 0	4 7 6	5 10 0	5 15 0
January	5 15 0	6 0 0	3 10 0	3 15 0	4 0 0	4 4 0	3 7 6	3 10 0	4 10 0	4 15 0	5 15 0	6 0 0
February	5 15 0	6 0 0	2 10 0	2 10 0	3 10 0	3 15 0	4 0 0	4 0 0	4 15 0	5 5 0	5 0 0	5 5 0
March	5 5 0	5 10 0	2 10 0	2 15 0	3 17 0	4 0 0	4 10 0	4 10 0	5 0 0	5 3 0	4 7 6	5 3 0
April	5 6 0	3 10 0	2 15 0	3 5 0	3 15 0	3 15 0	4 17 6	5 0 0	5 6 0	5 10 0	4 10 0	4 10 0
Average Monthly	5 10 10	to 6 1 6	3 4 1	to 3 10 1	3 0 7	to 3 3 10	3 14 3	to 3 11 3	4 15 5	to 4 16 4	5 0 0	to 5 4 2



RATES of Freight for Light Goods (say Shell-lac), per Ton of 50 Cubic Feet, from Calcutta to London, for the following Six Years

MONTHS	1840-41		1841-42		1842-43		1843-44		1844-45		1845-46	
	£	s d	£	s d	£	s d	£	s d	£	s d	£	s d
May	5 10 0	3 0	4 4 0	2 10 0	2 10 0	2 15 0	3 10 0	3 10 0	4 0 0	4 5 0	4 5 0	4 10 0
June	5 0 0	5 10 0	2 15 0	3 0 0	2 0 0	2 0 0	3 5 0	3 10 0	4 0 0	4 0 0	4 4 0	4 7 6
July	4 10 0	4 15 0	2 10 0	3 0 0	2 0 0	2 0 0	3 10 0	3 12 0	4 3 0	4 10 0	4 5 0	4 10 0
August	3 5 0	4 0 0	2 0 0	2 10 0	2 0 0	2 0 0	3 10 0	3 10 0	4 0 0	4 0 0	4 5 0	4 10 0
September	4 0 0	4 0 0	1 15 0	2 0 0	2 0 0	2 0 0	3 5 0	3 7 6	4 5 0	4 7 6	4 5 0	4 10 0
October	4 0 0	4 0 0	2 11 0	3 0 0	2 2 0	2 5 0	2 10 0	10 0	4 5 0	4 5 0	3 5 0	3 5 0
November	4 0 0	4 4 0	2 10 0	2 10 0	2 10 0	4 15 0	2 10 0	2 10 0	4 5 0	4 7 6	3 15 0	4 0 0
December	4 10 0	4 15 0	2 10 0	3 0 0	2 10 0	2 15 0	3 0 0	3 0 0	4 10 0	4 15 0	3 15 0	4 0 0
January	4 10 0	4 15 0	3 10 0	2 10 0	3 0 0	3 0 0	3 15 0	4 0 0	4 10 0	4 15 0	3 15 0	4 0 0
February	4 0 0	4 4 0	2 5 0	2 10 0	4 0 0	4 0 0	4 5 0	4 10 0	4 15 0	5 0 0	4 5 0	4 10 0
March	4 0 0	4 4 0	2 5 0	2 10 0	3 10 0	3 15 0	4 0 0	4 5 0	4 15 0	5 0 0	4 0 0	4 10 0
April	4 0 0	4 4 0	2 5 0	2 10 0	3 10 0	3 15 0	4 0 0	4 5 0	4 15 0	5 0 0	4 0 0	4 10 0
Average Monthly	4 14 2	4 12 3	2 12 0	2 19 1	2 9 9	2 12 1	3 7 6	3 9	4 6 7	4 10 0	4 0 9	4 4 0

YEARS	Average Monthly Arrivals of bblps in Calcutta.		Average Monthly Rate of Freight for Dead Weight (Sugar, to London)	
	number	tonnage	£	s d per ton 20 cwt
1840-41	35	16 947	5 10 2	
1841-42	74	18,415	3 7 1	
1842-43	40	14,962	3 1 8½	
1843-44	41	11,907	2 15 3	
1 1844-45	43	17,738	4 16 10½	
1845-46	45	18,335	5 2 1	
Average of Ships for 6 years	44	17,073	4 0 6½	

THE Rates of Freight for 1845-6 from Calcutta to London and Liverpool were as follow —

L O N D O N				L I V E R P O O L			
ARTICLES	Rate of Freight.			ARTICLES	Rate of Freight		
	£	s d	per ton 90 cwt		£	s d	per ton 20 cwt
Saltpetre	4 5 0	4 7 6		Saltpetre	4 5 0	4 7 6	
Sugar	4 7 6	4 12 6		Sugar	4 5 0	4 10 0	
Rice	4 10 0	4 12 6		Rice	4 7 6	4 12 6	
Oil Seed	1 12 0	4 15 0		Oil Seed	4 10 0	4 12 6	
Hides	3 17 0	4 0 0	per ton 14 cwt	Hides	3 1 0	3 17 6	per ton 14 cwt
Tobacco	2 15 0	2 17 6	per ton 14 cwt	Tobacco	2 6	2 10 0	per ton 14 cwt
Hemp	4 17 6	5 0 0	per ton 14 cwt	Hemp	4 10 0	4 12 6	
Shell-lac and Lac Dye	3 5 0	3 10 0	per ton 50 feet	Shell-lac and Lac Dye	3 0 0	3 5 0	per ton 50 feet
Freight and P. good	4 10 0	4 15 0		Freight and P. good	4 0 0	4 5 0	
Rice SHL	4 10 0	4 15 0	per ton 10 cwt	Rice SHL	4 0 0	4 5 0	per ton 10 cwt

NOTE.—The rates of freight to Malacca for Rice 1 Comp by a cask and 6 anna per bag To China for cotton, 2½ to 3½ dollars per bush. Opium 5 to 6 dollars per chest Saltpetre, 1 to 1½ dollar per bag

SHIP BUILDING in the port of Calcutta has declined during the last quarter of a century. In the six years from 1800 to 1805, the number of ships constructed in Calcutta amounted to seventy five, and their tonnage to 32,507. In the eight years from 1806 to 1813, the number of vessels built on the banks of the Hooghly was seventy one, and their tonnage 33,719, in a similar period, between 1814 and 1821, the vessels built were ninety five, and the tonnage 41,686, during the eight years from 1822 to 1829, sixty one vessels, of 12,119 tons were launched, from 1830 to 1837, the ships launched were thirty six, and the tonnage 11,536. During the period comprised in the fol-

lowing returns, the number of vessels constructed did not exceed thirty three, and the tonnage 10,150 Thus it appears, that in the first twenty two years of this century, the number of vessels constructed in the port amounted to 241, and the tonnage to 107,912 In the last twenty-four years the number of vessels amounted only to 130, and the tonnage to 34,137 The tonnage during the latter period fell short of the tonnage of those which were built from 1814 to 1821 by more than 7000 tons "The gradual declension of ship building in the last quarter of a century has been so palpable, and apparently so irremediable, that we must attribute it to some permanent cause which is likely to prevent its revival in Calcutta We ascribe it to our inability to construct vessels of such superior architecture, or with such superior economy as to compete with those which are constructed in England Of the commercial navy which adorns our port, every vessel of any mark and distinction has been built in England The dearer but more productive labour of English workmen gives the ship builders of England an advantage over their Eastern rivals, in spite of the low wages they pay, and the efforts of our dockyards are now confined to the construction of vessels employed in the coasting or China trade, and an occasional steamer But the increase of shipping in the port has given our docks more lucrative employment in the repairs of ships than they could have expected from building them

"In this brief notice of the ship-building of Calcutta, it must be added, that ship building has been introduced within the last eighteen years into Moulmein, and carried on with much success The first vessel constructed in that port was the *Devil*, of fifty tons, in 1830 During the eight years preceding 1843, the number of vessels built and launched there exceeded those of a corresponding period in Calcutta by seventy per cent, viz, sixty-four has tonnage to 17,436 The vessels are substantial when honestly built, and very durable, but extremely deficient in elegance and finish The great advantage enjoyed by the Moulmein builders is derived from the immediate vicinity of the teak-forests, but the timber they furnish is by no means considered equal to that of Pegu Had we retained the lower provinces of Burmah, when the king was at our mercy, and we might have obtained any portion of his dominions we chose to appropriate to ourselves, Rangoon, with the boundless resources of the Pegu teak forests above it, and the surpassing facility of navigation enjoyed by its river, would have become in a few years not only one of the largest marts in Asia, but the first ship-building port on this side the Cape"—*Calcutta Circular*

## STATEMENT of Vessels built in the Port of Calcutta

Name of Vessels	Tonnage	Date of Launching	Built by whom and where
Slon	101	24th Sept 1826	Built by Mr A Simes, at Howrah
Nymph	15	1st Nov 1827	
Lippy	140	2d Dec 1827	From Calcutta Docking Company at Kidderpore Dock Yard
Y. L. W. Herdron	215	1st Dec 1828	
The Sydney	193	Dec 1828	Built by Messrs Bouchamp and Co at Howrah
The Hon. H. Co's Steamer Enterprise	314	10th July 1828	Do at Sulka
Indy W. His	269	24th May 1829	From ditto ditto
Dwarkanauth	254	24th Sept 1829	Built by Mr J. Foster, jun. at Howrah
Leopold	374	5th Sept 1829	From Calcutta Docking Company at Kidderpore Dock Yard
R. N. Jones C. Warren	713	10th July 1829	Built by Mr A. Simes at Howrah
Eng. Dido	223	18th May 1829	From Calcutta Docking Company at Kidderpore Dock Yard
Atan	36	20th Dec 1829	Built by Mr A. Simes at Howrah
Bu. No. 1	103	Sept 1830	From Mr Walker at Howrah
France (No. 1)	56	15th Nov 1830	From Calcutta Docking Company at Kidderpore Dock Yard
City of Malacca	470	2d Jan 1831	
S. A. Queen	412	1st Apr 1831	Built by Mr A. Simes at Howrah
J. J. B. (No. 1)	471	1st Oct 1831	Built by Mr J. Foster, jun.
H. Co's Steamer (No. 1)	152	1st Jan 1831	
London & Co. Steamer (No. 1)	151	1st Dec 1831	From the Kidderpore Dock Yard
Albi	318	7th Dec 1831	From Mr Walker at Howrah
France (No. 2)	31	1st Feb 1832	Built by Mr A. Simes at Howrah
Leopold	274	22nd April 1832	Built by Mr Brenner at Howrah
France (No. 3)	303	4th April 1832	From Calcutta Docking Company at Howrah Dock Yard
Arcton	271	14th Sept 1832	Built by Mr J. Foster at Sulka
H. Co's Steamer (No. 2)	63	10th Sept 1832	From Calcutta Docking Company at Kidderpore Dock Yard
H. Co's Light Vessel (No. 1)	143	1st June 1832	Built by Mr Brenner at Howrah
France (No. 4)	25	2nd Sept 1832	
Iron Steamer (No. 1)	63	5th Dec 1832	Built by Mr Calder at Howrah
Boomer (No. 1)	100	21st May 1832	
A. Elias	249	21st July 1832	Built by Mr J. Foster at Sulka
R. N. Steamer	369	2d Nov 1832	
M. J. Fulton	189	1st Jan 1833	

The vessels which trade between this port and Great Britain are of two classes, the first of from 800 to 1200 tons each ship, arrives here about the commencement of the northerly monsoon (or the cold weather), say in the latter end of October or November. The vessels of this splendid class are termed "*Passenger Ships*," amongst the finest of which we may name the *Queen*, *Bucphalus*, *Maria Soames*, *Monarch*, &c. The other class are vessels which are employed chiefly in the curing trade, and in size vary from 300 to 600 tons. These arrive all the year round, but particularly during the rainy season when, the internal communication of the country being fully opened, the largest quantity of native produce comes down to Calcutta.

The trade between Calcutta and France is, comparatively trifling, being carried on by a number of regular small traders of about 300 tons, which arrive here during the cold weather with fancy goods, sold in exchange for indigo and dry salterns.

There is a limited trade carried on by country built ships with Ceylon in grain, occasionally a ship or two arrives at Calcutta seeking freight.

The export trade from Calcutta to the Mauritius consists of coolies and rice, which former are mostly imported by a number of regular trading country-built vessels that are fitted out for the purpose, and which return to Calcutta in ballast.

During the year ending 30th of April, 1816, thirty three vessels with 7764 coolies sailed from Calcutta to Mauritius.

To the WEST INDIES, during the same period, there departed, for Demerara, six ships, with 1425 coolies, for Jamaica, four ships, with 1015 coolies, and for Trinidad six ships, with 1524 coolies, total, sixteen ships, 3964 coolies. Philanthropy never committed a greater or less successful blunder.

AUSTRALIA, VAN DIEMEN'S LAND, NEW SOUTH WALES — Vessels frequently arrive from these places with troops, or horses. These vessels have usually sailed from England with emigrants, and when freights homewards from Sidney or adjacent parts are low or difficult of attaining, such vessels also come in ballast to obtain cargoes in Calcutta.

PEGU, MOULMEIN, AND RANGOON — In the trade between these places and Calcutta the import-tonnage always exceeds the export, which may be accounted for from the circumstance that about one-fourth of the vessels that arrive are new teak ships, just built, for sale or additional fastenings, and are generally despatched with cargoes to London or to the eastward, about another fourth comprises vessels touching at the above places from Singapore to take in a cargo of timber, for the Hoogly.

CHINA AND SINGAPORE — The vessels trading with these places are chiefly opium clippers.

BOMBAY — With the exception of occasionally salt and European goods, which cannot find a sale in that market, there is little or no trade between the two presidencies, although many vessels at all seasons of the year continually come round to Calcutta for cargoes.

COASTING TRADE AND NEW TARIFF — The recent Order in Council promulgated by the Governor-general, the Earl of Dalhousie, which declares all duties abolished between the ports of any one presidency in British India, and those of any other presidency, will greatly relieve and consequently increase the coasting trade. This abolition of a barbarous and injurious system of restrictions, as well as the equalisation of all differential duties on imports, whether in British or in foreign ships, declared by the same Order in Council, places the external and coasting trade of India upon sound principles. Nor are the duties higher than purely revenue rates. (See Tariffs, the scale now being for all the same as in the column of import duties by British ships and on British goods.)

RATES of Weight or Measurement for Tonnage according to the Usage of the East India Company at which the following kind of Articles constituted the Cargoes of their Ships are still calculated at per Ton

ARTICLES	Rate per Ton	ARTICLES.	Rate per Ton	ARTICLES	Rate per Ton
Aloes	cwt	Flax (measurable 50 cubic feet (to a ton))	30	Nutmeg candied	20
Assafetida Arrango bead and alms	30	Fossil shell	20	Olibanum	18
B. jacin buffalo hides and borax	20	Ginger green	20	Oil of cinnamon	20
Bark	20	— dried	16	Opium	14
B. r. k. nor fined (see tinical)	8	Gu a arabic—myrrh elemi and lac	16	Pepper and Pimento	11
Cotton (m. asur bl. 50 cubic feet to a ton) cotton yarn	10	—	16	Pepper long	12
Coffee	16 cwt	Hemp (meas. rask. 50 feet to the ton of 3 bal a)	18	Rubarb	8
Cardamom and clove	12	Indigo (measurable 50 cubic feet to a ton)	12	Rice, and red wool	10
Clove bark and cinnamon cassia g. c. and buds	8	Iron japan copper ordinary	20	Silk Be gal in bales	8
China rot	12	— hot &c	20	— China in chests	10
Camphor	15	Lun seed	20	Shell lac stick lac sal ammo- nic and sago	10
Colombo root cinnsbar and cake lac	15	La lake	15	Safflower	14
Cochin al coral (rough) and c. w. es	16	Lead and lapis lazuli	20	Sugar saltpetre and Japan or	20
Cutch	20	Lac erel and chunaware (50 cubic feet a ton)	20	Sundal wood	18
D. g. u. blood	18	Alco	8	Tea black	10
Drup	20	Myrrh	16	— green	8
F. plant Teeth	16	Mother o pearl shells and drops	16	Wool 10 cwt. worsted	20
Envy wood and extract of rh la b	20	Nutmeg, and box vomica	15	— ditto	20

GRAD WEIGHT ARTICLES—Rice exported is of two qualities, the one being a white clear grain, adapted for Great Britain, the other yellow or reddish, and consumed by the coolies in the Mauritius and West Indies. The former begins to arrive about December, the latter towards March. Exports have been as follows—

YEARS	Great Britain		YEARS	Mauritius	
	bazar maunds.	bazar m. pds		bazar maunds	bazar maunds
1840—41	504 075	8 374	1817—44	465 176	39 394
1841—4	584 539	856 272	1844—45	46 763	772 476
1—4	4 8 472	4 356	1844—46	1 052 050	97 448

This article is shipped at 20 cwt per ton

Sugar—The shipments of this staple amounted, in 1831-32, to 188,660 maunds or 6923 tons, in 1835 6, to 843,889 maunds or 30,968 tons. The new sugars begin to arrive in Calcutta about June. This article, like rice, is shipped at 20 cwt per ton

The exports have been as follows—

YEARS	Great Britain		YEARS	Great Britain	
	bazar maunds	bazar m. pds		bazar maunds	bazar m. pds
1840—41	171 290	1843—44	1 526 476	1 518 075	
1841—4	1 45 923	1844—45	1 531 963		
1842—45	1 5 3 14	1845—46			

Saltetre—The Americans and French carry away in their ships large supplies of this article direct from Calcutta. The manufacture of it continues

during the whole of the dry season, say from October until June, although it is not until the opening of the rivers by rains, or about the commencement of July, that supplies begin to arrive in Calcutta. This article is shipped at 20 cwt per ton.

The exports have been as follows

YEARS	Great Britain	France	North America
	basar maunds	basar maunds	basar maunds
1840-41	315 105½	28 9½	67,250
1841-42	381 703½	81 07½	105,888½
1842-43	480 737½	51 00	40 196
1843-44	322 08½	67 7½	68 402½
1844-45	37 562½	23 85½	140 211½
1845-46	460 2 ½	42,15 ½	1,28 671

*Hides and Skins* are shipped all the year round, but chiefly from June to November, when, from the opening of the rivers, large supplies come down into Calcutta. The total average exports are computed at 2,000,000 pieces, of the average weight of 10 lbs each hide and skin, equal to 8928 tons of 20 cwt. Hides are shipped at fifty four cubic feet to the ton, and also per ton of 14 cwt, generally by the latter standard.

The exports have been as follows —

YEARS	Great Britain	France	North America
	pieces	pieces	pieces
1840-41	1 588 33	80 543	846 93
1841-42	1 061 766	18 125	1 140 0 4
1842-43	1 303 530	230 034	952,214
1843-44	1 620 335	291 215	664 056
1844-45	1 761 663	48,612	1,314,119
1845-46	1 310 044	221 944	1 080 900

**LIGHT GOODS — Indigo** — Arrives about November, and is generally all shipped by April, fifty cubic feet go to the ton.

*Silk* arrives all the year round, and is shipped at 10 cwt per ton. These two articles being of great intrinsic value, it is very difficult to procure them on freight, unless the ship is not only A 1, but also of a very superior class, the highest character of a ship at this port is to have, on a previous voyage, obtained an "indigo and silk cargo."

*Jute* is exported all the year round, but principally from December to June. It is shipped at fifty cubic feet per ton, as also per ton of five bales of 300 lbs each. When shipped per ton of fifty cubic feet, the same equals about a ton of 20 cwt, in nearly the following ratio,

Jute at per ton 50 cubic feet	£ s	equal to	£ s	per ton 20 cwt
	2 10		3 15	
	3 0	"	4 10	"
	3 10	"	5 5	"
	4 0	"	6 0	"
	4 10	"	6 15	"
	5 0	"	7 10	"

When jute is shipped at the rate per ton of five bales, or 1500 lbs, the same equals 13 cwt 1 qr 16 lbs

Shell-lac and lac dye are shipped by ton of fifty cubic feet, and arrive and are exported at all seasons of the year

The following tables show the period at which the various descriptions of produce from Calcutta are generally shipped to Great Britain, during 1843—44, 1844—45, and 1845—46, and of the principal articles of "dead weight" and "light freight"—

STATEMENT, showing the Monthly Exports of the Principal Descriptions of Dead Weight in Tons, taking the average Annual Shipments, during 1843 to 1846

MONTHS		DEAD WEIGHT						TOTAL
		Sugar	Rice	Saltpetre	Hides	Linseed	Mustard Seed	
	tons	per 20 cwt.	per 20 cwt.	per 20 cwt.	per 20 cwt.	per 20 cwt.	per 20 cwt.	number
May	do	4 036	1 54	1 064	406	49	126	7 336
June	do	4 360	1 487	1 010	483	141	84	7 501
July	do	4 229	738	540	506	166	180	8 407
August	do	5 09	905	327	523	104	199	7 991
September	do	6 090	1 36	8 9	484	3 1	238	10 008
October	do	7 14	1 54	1 224	501	283	244	7 490
November	do	4 405	3 177	1 461	400	713	364	11 49
December	do	4 881	5 25	1 12	461	692	320	13 011
January	do	3 720	4 8 1	1 12	441	160	74	10 444
February	do	4 169	2 274	1 633	344	237	359	8 857
March	do	3 417	1 175	1 333	320	238	417	9 408
April	do	6 672	1 312	631	430	105	179	8 602
TOTAL tons		39 707	27 750	13,436	5400	3,523	2729	111,212

STATEMENT, showing the Monthly Exports of the Principal Descriptions of Light Goods in Tons, taking the average Annual Shipments, during 1843 to 1846

MONTHS		LIGHT GOODS							TOTAL
		J te	Indigo	Rum	Silk	Shell lac	Silk Piece Goods	Lac Dye	
	tons	per 1 chest	per 50 c ft	per 4 blads	per 10 cwt	per 50 c ft	per 50 c ft	per 50 c ft	number
May	do	1 5 8	149	181	130	452	75	46	2 411
June	do	1 073	32	302	106	175	61	45	1 870
July	do	1 233	15	192	161	117	72	26	1 836
August	do	59	60	24	130	87	70	39	1 266
September	do	1 515	21	190	169	133	164	83	1 56
October	do	1 204	151	52	102	13	13	20	1 691
November	do	1 39	363	236	91	16	76	3	2 510
December	do	1 256	1 25	24	65	120	78	61	3,358
January	do	1 510	1 25	41	117	14	13	30	3,365
February	do	1 08	1075	181	144	10	62	34	3 406
March	do	1 5 7	3 6	1 0	151	19	61	28	2 460
April	do	1 158	144	147	50	115	62	37	1 677
TOTAL tons		16, 93	4992	62	11 0	1423	833	414	28 117

N B.—In this statement, the weight of light freight we reckon indigo, 9 cubic feet to one chest; shell lac, 63 cubic feet to one chest; lac dye, 54 cubic feet to one chest.

The space, on the average, occupied by the various descriptions of dead weight are as follows —

	65 lbs to 1 cubic foot	ergo	20 cwt equal to	34 feet 6 inches
Saltpetre	58	1	20	38 7
Sugar	54	1	20	41 7
Rice	43	1	20	52 1
Linseed	51	1	20	43 11
Wheat	47	1	20	47 8
Flour	37	1	20	60 6
Coffee	34	1	20	65 10
Furmeric	28	1	20	80 0
Ginger	54	1	20	41 6
Tinical				

Saltpetre, which occupies the least space, is the best, and linseed the worst freight for a vessel, saltpetre at *4l 10s* equals, as regards space occupied, sugar at *5l 0s 7d*, rice at *5l 8s 5d*, and linseed at *6l 15s 10d*. Generally on the average linseed in this market rules *5s* over rice, rice *5s* over sugar, and sugar *5s* over saltpetre, whence it necessarily follows, that by taking saltpetre as dead weight, and filling up with jute, forms a good easy cargo, and occupies all the available room in the vessel, and realises more freight than by loading, as is generally done, one fourth saltpetre, one-fourth sugar, one-fourth rice, one fourth linseed, and the remainder light freight for example, a vessel of 450 tons' register, presuming it to carry 700 tons of 20 cwt (her draft when thus loaded is about seventeen feet), her hold then contains about 40,000 to 41,000 cubic feet, the difference effected by the different modes of loading will be, viz —

Tons	Feet	In	£	s	d	per ton	equal to	£	s	d
125 Saltpetre, occupying	4 312	6	at	4	10	0	per ton	562	10	0
125 Sugar	4 822	11	4	15	0	"	"	593	15	0
125 Rice	5 197	11	5	0	0	"	"	625	0	0
125 Linseed	6 510	5	5	5	0	"	"	656	5	0
500 dead weight occupying	20,843	9						2437	10	0
200 { of 20 cwt or 298 cubic tons of light freight, occupying }	14,900	0	at	4	10	0	per ton	1941	0	0
700 of 20 cwt, occupying	35 743	9	giving a gross freight of					3778	10	0

By loading a vessel in the above manner, a gross freight of *3778l* is earned, and about 5000 cubic feet (or the balance of what the 700 tons occupies, viz, 35,743 feet 9 inches, and the ship's hold) are wasted, it being impossible, the vessel having 700 tons of 20 cwt of cargo on board, to fill up the same, as she then, as before stated, draws her seventeen feet. By loading a vessel, however, as follows, not only is such space fully occupied, but the freight list also shows *253l 10s plus*

Tons	Feet	In	£	s	d	per ton	equal to	£	s	d
700 Saltpetre occupying	10 350	0	at	4	10	0	per ton	1350	0	0
400 of 30 cwt jute reckoned as above	29,800	0	4	10	0	"	"	2682	0	0
700 of 20 cwt, occupying	40,150	0	giving a gross freight of					4032	0	0



"It will thus be seen that it is from the homeward, and not the outward, cargo whence the profit on the voyage is to be made, and that a few shillings a ton on (or even a proper selection of) the return freight will often go far to counterbalance the whole amount of the outward earnings"

One of the great objections that owners of ships have to consigning their vessels to Calcutta, arises from the heavy port dues that are incidental to the Hooghly, and which in many cases have, especially on small vessels amounted to no less than 20s per register ton. These are charges incurred by a vessel whilst in this river, and until a more adequate supply of tug steamers are brought out it will be impossible to obtain any material reduction in the rates of steam hire and pilotage.

In order, however, to illustrate how deeply interested some of our shipping friends are in the adequate and further supply of steam tugs, whereby the port charges can alone be reduced, we will take the case of a ship owner who has five vessels, of 600 tons each, proceeding to this river, and who, for port charges alone, has annually to expend thereon no less a sum than 30,000 Company's rupees or 3000l sterling — *Calcutta Report, 1847*

## PILOTAGE chargeable on Vessels

DRAUGHT OF WATER		INTERMEDIATE OR BROKEN PILOTAGE																														
		Full Pilotage		1 1/2ths		2 1/2ths		3 1/2ths		4 1/2ths		5 1/2ths																				
		Co s Rs	Co s Rs	Co s Rs		Co s Rs		Co s Rs		Co s Rs		Co s Rs																				
Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward																			
Under 8 feet	70	56	4	2	8	4	2	8	8	5	4	8	5	4	12	8	12	5	16	10	8	16	10	8	20	13	6	20	13	4		
8 1/2	80	60	6	3	8	6	10	6	12	5	4	13	5	4	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0	20	0
9 to 10	110	120	0	2	8	10	0	0	18	5	4	0	0	0	7	8	20	5	10	8	40	0	0	45	13	4	50	0	0	0	0	
10 1/2	130	140	10	13	4	11	10	8	21	10	8	23	4	12	8	35	0	43	5	4	41	10	8	4	2	8	8	5	4	0	0	
11 to 12	150	160	14	8	0	13	5	4	5	0	0	20	10	8	27	8	30	0	20	0	53	5	4	2	8	0	68	10	8	0	0	
12 to 13	170	18	14	2	4	1	0	0	5	4	30	0	0	12	8	4	0	5	10	8	60	0	0	70	13	4	75	0	0	0	0	
13 to 14	200	11	11	10	8	17	8	0	43	5	4	35	0	0	50	0	52	10	8	70	0	0	82	5	0	87	8	0	0	0	0	
14 to 1	230	240	1	2	8	0	0	0	38	5	4	30	0	0	7	8	60	0	5	10	8	80	0	0	95	13	4	100	0	0	0	
1 to 10	273	280	2	8	0	1	8	4	0	0	48	5	4	07	8	72	0	90	0	96	10	8	112	8	0	120	13	4	0	0	0	
10 to 17	308	308	20	10	8	20	0	0	34	5	4	60	0	0	60	0	0	100	0	100	0	132	2	4	140	0	0	0	0	0	0	0
17 to 18	370	4	0	20	15	1	35	0	1	61	40	8	70	0	0	8	105	0	123	0	4	10	0	151	8	0	175	0	0	0	0	0
18 to 19	429	4	0	33	0	0	32	2	6	70	0	0	78	5	4	105	0	117	0	110	0	155	10	8	1	5	0	115	13	4	0	
19 to 20	480	540	10	0	0	1	0	0	88	0	0	90	0	0	120	0	15	0	160	0	180	0	0	200	0	0	240	0	0	0	0	0
20 to 21	540	600	43	0	0	0	0	0	0	0	100	0	0	14	0	150	0	180	0	0	200	0	0	220	0	0	240	0	0	0	0	0
21 to 22	600	660	49	2	8	54	2	8	58	0	4	136	5	4	147	8	162	8	1	10	8	216	10	8	240	13	4	270	12	4	0	0
22 to 23	660	720	3	5	4	38	5	4	106	10	8	110	10	8	160	0	175	0	213	5	4	234	5	4	260	10	8	291	10	8	0	0
23 to 24	720	780	0	5	4	64	2	8	116	10	8	128	5	4	175	0	192	5	3	7	5	4	2	6	10	8	291	10	8	240	13	4

## PILOTAGE chargeable on Vessels—(continued)

DRAUGHT OF WATER		INTERMEDIATE OR BROKEN PILOTAGE.											
		6-12ths		7-12ths		8-12ths		9-12ths		10-12ths		11-12ths	
		Co. s Rs		Co. s Rs		Co. s Rs		Co. s Rs		Co. s Rs		Co. s Rs	
		Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward	Inward	Outward
Under 8 feet		25	25	25	25	25	25	25	25	25	25	25	25
8 to 10		40	40	16	10	8	5	4	3	3	3	3	3
10 to 11		55	60	24	28	16	18	10	12	8	10	6	8
11 to 12		65	70	32	36	18	20	12	14	10	12	8	10
12 to 13		75	80	40	44	24	26	16	18	12	14	10	12
13 to 14		85	90	48	52	32	34	20	22	14	16	12	14
14 to 15		100	105	56	60	40	42	24	26	16	18	14	16
15 to 16		115	120	64	68	48	50	28	30	18	20	16	18
16 to 17		130	135	72	76	56	58	32	34	20	22	18	20
17 to 18		145	150	80	84	64	66	36	38	22	24	20	22
18 to 19		160	165	88	92	72	74	40	42	24	26	22	24
19 to 20		175	180	96	100	80	82	44	46	26	28	24	26
20 to 21		190	195	104	108	88	90	48	50	28	30	26	28
21 to 22		205	210	112	116	96	98	52	54	30	32	28	30
22 to 23		220	225	120	124	104	106	56	58	32	34	30	32
23 to 24		235	240	128	132	112	114	60	62	34	36	32	34
24 to 25		250	255	136	140	120	122	64	66	36	38	34	36
25 to 26		265	270	144	148	128	130	68	70	38	40	36	38
26 to 27		280	285	152	156	136	138	72	74	40	42	38	40
27 to 28		295	300	160	164	144	146	76	78	42	44	40	42

The pilotage of the Hooghly River is divided into twelfths, for the convenience of charging intermediate or broken pilotage, viz from sea to places short of Calcutta, and from and to intermediate places, as also for the purpose of the proportionate deduction being made when vessels are tugged by steam any portion of the distance

The following shows the number of twelfths chargeable between the several stations —

INWARD PROPORTION	Rates Charged	OUTWARD PROPORTION		Rates Charged
		FROM SEA	FROM CALCUTTA	
To Saugor	4 12ths	To Moyapore or Futah	4 12ths	4 12ths
To Kujree	6-12ths	To Diamond Harbour	3-12ths	3-12ths
To Kulpes	8-12ths	To Calcutta	0-12ths	0-12ths
To Diamond Harbour	9-12ths	To Kedgerie	0-12ths	0-12ths
To Futah or Moyapore	10-12ths	To Saugor	6-12ths	6-12ths
To Calcutta—full pilotage		To Sea—full pilotage		

Moyapore Magazine Duty—chargeable once for each voyage on a vessel passing Moyapore inward—one anna per ton on registered tonnage, and vessels drawing under eight feet draught of water are exempted

Light Duty—the duty is leviable every time a vessel enters the river, except returning from stores of weather—two annas ditto

Row boat—inward—Company's rupees thirteen per diem

Ditto—outward

From 1st of April to the 31st of July 700 tons and upwards Co's Rs 128

500 to 699 , " 102

300 to 499 , " 76

From 1st of Aug to the 31st of March 700 89

500 to 699 " 76

300 to 499 " 51

Row boat at Hooghly Point, per diem , 13

If the barrow is used in assisting a vessel in danger or on shore per diem , 26

N B Vessels under 300 tons are exempted from the attendance of a row boat in aid of the pilotage unless one is required by the commander

## THE HIRE OF THE CALCUTTA CHAIN MOORINGS

All vessels	up to 199 tons		Co s Rs	2 per diem
	from 200 to 299 "	300 to 399 "		
	300 to 399 "	400 to 499 "	8	,
	400 to 499 "	500 to 599 "	4	,
	500 to 599 "	600 and upwards	5	,
	600 and upwards		6	,
Swing ingmoorings			7	,
			3	,

N B No vessels above 300 tons burden can be hauled to the swinging moorings

Hauling to or from the chain moorings each operation	Co s Rs	26
Ditto ditto swinging ditto ditto		26
Ditto from or under touts ship of 250 tons and upwards		52
Ditto ditto under 250 "		26
Re-moorings		26

## HAULING IN OR OUT OF DOCK, AND ON OR OFF THE SLIP OR WAYS

It above 300 tons each operation	Co s Rs	40
If of or under 300 tons ditto		20
For the use of the buoy hauling into or out of dock		10
Riding at the said buoy per diem		3
Transporting vessels (when not at the chain moorings or not going into or coming out of dock) from Sulkea to any part of the river not below Kidderpore		25
Transporting any ship, after having been moored from one mooring to another if at the request of the owner or commander		50

*Diamond Harbour*—The same charge is made for hauling to and from and occupying the moorings at Diamond Harbour as exists in the Calcutta moorings

*Hire of Steam Vessels for Tugging*—300 rupees or 30¢ a day with 15¢ gratuity, in the shape of return hire.

## ABSTRACT of Charges, Losses, and Profits of the Calcutta Mint, in 1844—5, the last Account.

DESCRIPTION	Amount		DESCRIPTION	Amount	
	rs	a p		rs	a p
Net profit	3,232	11 0	Net charges and losses	2,384	15 9
Silver	1,409	92 1	Net profit	3,052	2 11
Copper	2,118	386 14 /			
		5,63 622 2 8			5,63 22 2 8
TOTAL COMPANY'S RUPEES		5,63 522 2 8	TOTAL COMPANY'S RUPEES		5,63 522 2 8

## COINAGES in the Year 1844—5

DESCRIPTION	Amount		DESCRIPTION	Amount	
	rs	a p		rs	a p
Company's gold mohurs			Value in Company's rupees		
— 100 rupees	2,748	999 0 0	Ditto	2,748	999 0 0
— 50 ditto	800	400 0 0	Ditto	800	400 0 0
— 25 ditto	14	13 0 0	Ditto	3,077	79 4 0
— 12½ ditto	7	11 748 0 0	Ditto	50	1 3 8 0
Company's pice		7,015 307 0 0	Ditto		2,853 569 4 0
		7,113 0 0			4,25 959 9 3
TOTAL TABLE		3,761 104 0 0	TOTAL VALUE IN COMPANY'S RUPEES		2,854 821 12 3

Calcutta Mint December 5 1845

(Signed) J MULLES (Signed) W W FORBES Mint Master

ABSTRACT of the Operations of the Calcutta Mint from its Reform in 1831 to 1844, stating the Expense under each Head, and the Amount of Coin, and the Number of each Kind coined in each Year

YEARS	Value of Gold received into the Mint	Value of Gold coined withdrawn &c from the Mint.	Value of Silver received into the Mint	Value of Silver coined withdrawn &c from the Mint	Amount of Gold	NUMBER OF EACH KIND COINED IN EACH YEAR.							Salaries and Allowances of Mint Master, Assay Master, and Assistant of Machinery, &c	Salary Establishment and Contingencies of Secretary of the Mint Committee	Expenses of the Mint Establishment	Contingencies of Mint Office Cost of Stones &c	Establishment and Contingencies of Assay Office	Profit or Loss, which is more than covered by the Profit from Coinage on the whole Period
						GOLD COINS		SILVER COINS			COPPER COINS							
						Co s Rs	Co s Rs	Co s Rs	Co s Rs	Co s Rs	Quarter Annas or Pyce	1/16 Pieces						
1831-32	21,26,358	22,96,732	64,54,715	60,68,535	73,43,660	1 14 063	36 23 111	13,66,299	14,24,507	2,40,33,228	94,69,000	64 100	16,180	1,00,581	46,934	0 731	2,28,720	
1832-33	27,22,596	26,43,475	1 13 35 386	1 03,12 064	1 10,19 179	1 48 189	78,95,917			20 63,623	1 33 56 302	65,74,510	00 239	1 170	1 02 748	31 760	8 749	2 30,386
1833-34	29,45,249	30,29,094	1 83 29 466	1 64,76,127	1 58,41,847	155 191	1 04 84 366	30,94 869	4 18 959	1 47 24 223	1 39 59 54	324	54 629	7 589	1 13,700	20 604	8 127	2 14 042
1834-35	17,74 402	30 17,078	1 26,62 583	1 48 79 660	1 52 26 027	98 721	1 18 70 233	13 97 295	29 81 410	1 13 03 4307	5,72,05 11	04 62 068	93 760	5 886	1 18 135	46,294	7 335	2 70,410
1835-36	14 11 042	13 21 960	2 22,10 139	1 65,3 920	1 77 03 154	1 174 08,049	1 27 58,507	5 21 380	0 21 830	1 54,05 660	13,07 976	77,540	7 483	1 20,167	42,623	7 631	3 05 495	
1836-37	2,72,862	1 81 141	3 70 78 913	3 01 71 001	3 00 97 447	4 543	2 84 63 012	17 84,825	18 15,512	02 80 000	79 489	10 140	1 05 027	83 214	8 836	3 10, 15		
1837-38	10,84 975	9 7 8 093	3 20,16 03	3 14 90,402	3 16,64,960	1 9,351	1 87 63,780	22 31,033	42,37 438	8 04 58 060	73 620	9 268	1 28,830	47 593	7 401	9 04 221		
1838-39	14,31,204	11 48 228	2 43 99 407	2 74,63 374	2 70 14 73	20 721	2 29 54 195	7,34 299	16 48,998	3,24 66 000	64 161	8 083	1 28,045	66 778	8 789	2 74 791		
1839-40	24,75,027	17 94,270	2 32,86,026	3 22,11 432	3 28 58,823	49 908	3 01 18 278	19 48,720	21 39 752	2 60 28 256	76 601	9 835	1 32,000	76 601	5,110	8,80 898		
1840-41	4 09,500	32,70 199	3 10 17 233	3 10 48 011	1 74,81,080	3 848	1 37 61 167	5 83 184	14 15 980	9 72 03 139	58 649	9 630	1 24 359	66 736	3 988	3 29 909		
1841-42	2 92,001	2 46,968	2 51,24 069	3 54 17 038	2 87 28 736	15 401	2 21 26,262		2021	5 37 70 169	48,808	9 266	1 21 296	61 864	8,837	9 44 541		
1842-43	61 081	305	3 22 59 941	2 07 39 007	2 08,36 420		1 92,50 680	14,99,991	21,88 731	1 43 71 510	71 979	12 741	1 16 126	43,660	4 035	2 47 740		
1843-44	64 308	1,08,875	2 53 25 621	2 22 27 134	2 25 04 723	11 089	2 11 05 163	8 72 4 3	8 96,584	8 06,25 061	69 078	10 400	1 19 755	65,387	4,015	2 07 678		
TOTAL					255 210 240												3,359 515	

\* These 1174 were double mohurs

† These were half annas

**A\ Abstract Statement of the Revenue and Charges of the Bombay Mint in  
1844—45**

DESCRIPTION	Value	Value
	rupees.	rupees.
Mint duty as shown in a separate statement	2,83,695	
For cutting silver from China	1,033	
Gain on copper coinage	91,869	
<b>Total revenue</b>		<b>3,76,597</b>
Amount of charge for salaries and contingencies	2,76,160	
Loss by seigniorage on the silver coinage	27,390	
Ditto on the copper coinage	283	
	<b>3,03,833</b>	
Ded. et—		
Amount realised by the sale of unserviceable stores	3,674	
		<b>2,02,399</b>
<b>Nett revenue</b>		<b>1,74,198</b>

An abstract statement of bullion received for coinage in the Bombay Mint in the years 1844—45 —

*Gold*—For coinage for the East India Company, 12,061 rupees for coinage for merchants, 3,481 rupees

*Silver*—For coinage for the East India Company, 22,70,962 rupees for coinage for merchants 1,41,76,000 rupees mint duty at two per cent on the silver and one per cent on gold for coinage for merchants 2,83,695 rupees

Statement of the copper coinage in the Bombay Mint, in the years 1844—45 —

Half anna pieces 51,18,400 nominal value, 1,09,950 rupees cost of the copper 68,081 rupees gain to government 91,869 rupees

**A\ Abstract of the Revenues and Charges of the Madras Mint in 1844—45**

DESCRIPTION	Value	Value
	rupees	rupees
Seigniorage	1,13,682	
Gain on copper coinage	1,39,003	
<b>Total revenues</b>		<b>1,52,685</b>
<b>Total charges</b>		<b>1,20,913</b>
<b>Nett revenue</b>		<b>31,772</b>

The gold and silver coinage in the Madras Mint, in the years 1844—45, was as follows —

Value of gold coined 89,595 rupees value of silver coined 31,72,358 rupees the seigniorage and refuage duty received, 81,50 rupees

The copper coinage in the Madras Mint, in the years 1844—45, was as follows —

Half anna pieces 47,84,000 quarter anna pieces 58,40,000 single pie pieces 5,31,000 nominal value of the three 2,35,703 rupees value of the copper, 96,198 rupees gain to government 1,39,003 rupees

An abstract statement of the charges of the Madras Mint, for the years 1844—45

	Rupees
Salaries of the mint master and of establishments	14,209
Mint contingents charges	38,470
Mintinery and repairs	7,703
Mint office and charges	30,971
Mint committee office	4,460
<b>Total charges</b>	<b>1,20,913</b>

## MADRAS

MADRAS is the capital of the presidency of the same name. It is the principal place on the coast of Coromandel, and situated in Lat 13 deg 5 min N, Lon 80 deg 21 min E. The area of the presidency is about 172,000 square miles, with a population, according to the census of 1836—37, of 18,314,000, paying a gross annual revenue of above 5,000,000*l* sterling.

Madras is situated in rather a sterile and a sandy part of the Carnatic. It has no harbour, and ships ride off the coast exposed to the swell of the ocean, and landing is only effected through or over a surf that never rests, and across a rapid current. Typhoons, or hurricanes, are also experienced. No place can be more inconvenient for trading purposes. It owes its importance to its fortifications, and its being the capital of the presidency, which has gathered within and around it a population variously estimated at from 180,000 to 400,000. The latter must include the Black Town, situated to the north east of the fort. Several native Armenians, &c, reside within the latter. Madras is very unequally built.

It has been in the possession of the English since 1639.

In the roads ships moor off the shore at from seven to nine fathoms, with the flag staff of the fort bearing W N W, two miles distant. From October to January storms and typhoons prevail, and from the 15th of October the flag-staff is struck, as a signal for ships not to anchor, till the 15th of December. The fort light house is ninety feet above the level of the sea, and may be seen at seventeen miles' distance, or from the mast-head of a large ship twenty six miles. The Massula boats employed to cross the surf are large and light, constructed of thin planks sewed together, with straw caulking, and are plied forward with the utmost vigour to prevent the wave from taking the boat back as it recedes, until at length, by a few successive surfs, the boat is thrown high and dry upon the beach. Boats belonging to ships in the roads sometimes row near the surf, and wait for the Massula boats. When it is dangerous to land, a flag is hoisted at the beach house.

The fishermen and lower classes use a catamaran, formed of two or three logs of light wood, eight or ten feet in length, lashed together, with a piece of wood inserted between them to serve as a stem piece. When ready for the water, they hold generally two men, who with their paddles impel themselves through the surf, to carry water, &c, in small quantities, to ships, when no boat can venture to land or put to sea.

The imports and exports of Madras are stated in detail in the statistical tables given in former pages of this work. Those tables exhibit the different countries with which the trade and navigation of this presidency is carried on.

**MONEY, WEIGHTS, AND MEASURES.**—Mercantile accounts are kept in Standard Rupees Fanams and Cash the coin chiefly current being Star Pagodas of the intrinsic value of 7½ d but usually taken at 8s

**ARCOT and COMPANY'S RUPEES AND THEIR SUBDIVISIONS**

80 cash = 1 fanam		34 rupees or 42 fanams = 1 padoda
12 fan = 1 rupee		10 rupees = 1 Madras gold mohur
<b>WEIGHTS</b>		
10 pagodas = 1 pollam = 1 oz 4 dr		4 ollacks = 1 puddee
40 pollams or 5 seer = 1 vis = 3lbs 2 oz		8 puddies = 1 marcal = 750 cubic inches
8 vis = 1 maund = 2½ lbs		5 marcals = 1 parahi
20 maunds = 1 candy = 500 lbs		80 paralis = 1 garee = 17½ impl quarters.

When grain is sold by weight, 92½ lbs are reckoned for a garee

In most parts of the Madras Jajhirc, and on the Coromandel coast, the following is used —

**TABLE OF MALABAR WEIGHTS**

10 varilangs = 1 pollam = 1 oz 3½ dr		20 manungus = { 1 bhrany } = 48.2 lbs 8 oz	
40 pollam = 1 visay or vis = 3 lbs 0 oz 4 dr		{ or candy }	
6 visay } = { 1 manungus }			20 bars = { 1 guray } = 96.0 lbs
or vis } = { or maund }			{ or garee }

**LOCAL WEIGHTS COMPARED WITH THOSE OF THE OTHER PRESIDENCIES WITH THE INDIAN STANDARD AND BRITISH AVOIRDUPOIS WEIGHTS.**—The Madras candy of 20 maunds is equal to 6 ms 28 seers Bengal Factory 17 ms 34 seers 8 10th piee Bombay or 6 ms 3 seers 1 ch Standard maund and 500 lbs avoirdupois The Tellicherry candy of 20 maunds is equal to 8 ms 2 chittak Bengal Factory 24 ms Madras 21 ms 17 seers 4 8-10th piee Bombay or 7 ms 11 seers 10 5 8th ch 5t mds and 600 lbs avoirdupois Mysore candy of 70 morahs is equal to 7 ms 20 seers Bengal Factory 22 ms 3 vis 8 poll Madras and 20 ms Bombay or 6 ms 32 seers 3 10th ch Standard maunds, and 560 lbs avoirdupois

There is a Bank of Madras and a Chamber of Commerce a Madras Equitable Assurance Society besides the Agencies of the following offices viz the Hindostan and Atlas Companies of Calcutta Messrs Arbuthnot and Co the Calcutta Office and Bengal Society of Calcutta, and the Bombay Society of Bombay Messrs Binney and Co, the Phoenix Company of Calcutta Messrs Griffiths and Co the Amicable Office and Universal Company of Calcutta Messrs Hall Knightridge and Co the Equitable Society and Commercial Company of Calcutta Messrs Lane and Co the Calcutta and Ocean Marine Companies and the Sun Office of Calcutta, Messrs Parry and Co

The rates of premium in insurance are about as follows —

<b>From the port of Madras to</b>			<b>From the port of Madras to</b>	
Masulipatam	1 to 14	per cent	Malacca or Singapore	2 per cent
C hina	1	1½	China	3
Vizagapatam	1	1½	Colombo	1½
Calcutta	14	2	Malabar Coast	1½ to 2
Amberst		2	Bombay	2
Penang		1½	London	2½

At the period antecedent to the late peace the following were the principal merchants and agents with correspondents in England — Amalric & Co Arbuthnot & Co\* J Barrow & Co Binney & Co† Campbell Anderson & Co, Gahan, Eaton & Co Griffiths & Co Hill Bamberidge & Co Hall & Phillips Lane & Co‡ Ouchterlony & Co Parry & Co Smith Clark & Co

**RATES OF AGENCY AND COMMISSION**

On the total sum of a debit or credit side of an account, at the option of the agent (excepting item on which a commission of 5 per cent is chargeable)	1
On affecting remittances or purchasing selling or negotiating bills of exchange	1
On receiving and delivering private commissions of wine cattle and merchandise	2
On letters of credit granted	2½
On an illustration to a letter of deceased persons	5

\* Agent to royal navy † Agent to Commissioners of Greenwich Hospital ‡ Agent to Lloyd

On the management of estates for executors and administrators or becoming security for them	2½
On debts when a process of law or arbitration is necessary	2½
If recovered by such means	½
On bills of exchange notes &c dishonoured	1
On over due debts collected for absentees	2½
On all sales or purchases of goods	5
With the following exceptions —	
On sale and purchase of houses lands and shops	2½
On ditto of diamonds, pearls and jewellery	2½
On ditto of treasure and bullion	1
On all goods and merchandise withdrawn, shipped or delivered to order half commission	
On all other descriptions of property for sale if withdrawn or otherwise disposed of by the owner half commission	
On goods transferred to auction or commission salesmen half commission	
On guaranteeing sales bills, bonds, contracts for goods or other engagements	2½
On ships-disbursements	2½
On chartering ships or engaging tonnage	2½
On advertising as the agents of owners or commanders of ships for freight or passengers on the amount of freight and passage-money, whether the same shall pass through the agents hands or not	5
On effecting insurance or writing orders for same	0
On settling losses, partial or general, and returns of premium	1
On procuring money on <i>respondentia</i> wherever payable	2
On making up or purchasing goods to order, where funds are not provided	7½
On giving orders for the provision of goods, when a commission is not chargeable on sale or shipment	2½
On attending the delivery of contract goods	2

## DISTANCES FROM MADRAS

PLACES	British Miles	PLACES	British Miles	PLACES	British Miles
Adoni N W	510	Chingleput S W	20	Kirtce	670
Ahtoor	186	Chittiedroog W N W	348	Rumool	2
Ajmere C N W	22½	Chittoor	96	Kurnool	14
Agra N	1228	Chitaur	1146	Labore N N W	1073
Allahabad N	1151	Cochin	42	Madappolun N	34
Alleppe	4.0	Columba (Ceylon)	604	Madura S S W	272
Anasabed N W	1029	Concomery	1197	Mangalore W	416
Anasapore	223	Concomery	69	Mangalore N N E	280
Arcoi W S W	71	Concomery S W	315	Miraspore N	1125
Arcees	81	Concomery N N W	228	Moorsheebad N E	1138
Aurangabad N W	600	Concomery S S W	1	Muzul	341
Azashy	229	Concomery W S W	410	Mysoore W	229
Azimbur	1220	Concomery N	285	Narsaul	350
Bachergunge	1247	Concomery W S W	46	Naggyery W N W	57
Baharee	9	Cornh North	1086	Nagpore S	182
Banda	1102	Cuddalore S S W	119	Nagpore N	718
Bancapora N N W	417	Cuddalore N W	168	Narsingapatam N E	710
Bandaanlanka N N E	378	Lalucherry W N W	118	Narsingapatam N	370
Bangalore W	305	Dacca	1220	Narsingapatam S	187
Barielly	1700	Delhi N	1772	Nellore N N W	114
Barrackpore	1029	Deshah Dhoos	1422	Norwango	152
Bidar N N W	470	Dharnar	468	Nanddroog N N W	109
Bidner W	445	Dhargur	421	Ogoota N N W	122
Bignapore	112	Dindroop	127	Ogoota S S W	121
Billery N W	316	Dindigul S W	2	Ootacand	400
Binnaris, W	1161	Dindroop N W	651	Ootacand	331
Birhanpore N N W	66	Pithcoor N N W	737	Ootacand	181
Bisnars	274	Poddy N	91	Pondicherry	1228
Bilapatam	518	Errode	1221	Pondicherry S S W	990
Bisnagar N N W	381	Etawah	1221	Pondicherry W S W	111
Bombay N W	763	Callie Point de (Ceylon)	76	Panna N N E	2229
Breach N W	112	Chandernagore	608	Pandhacherry S W	214
Burdwan	1066	Chowmly W	2671	Pandhacherry S S W	442
Babal N N W	2124	Goa S S W	573	Pandhacherry S S W	404
Calcutte	1022	Colconda N N W	334	Pandhacherry S S W	98
Calcutt W S W	416	Copwallepore	685	Pandhacherry S S W	62
Calherga N W	422	Coutoor N	25	Pandhacherry S S W	12
Cambay N W	998	Gurramcondra W N W	149	Pandhacherry S S W	624
Candy (Ceylon)	376	Gwallior N	1164	Pandhacherry S S W	108
Cannore W S W	410	Hamsapore	1161	Pandhacherry S S W	280
Cannore N	1141	Hosoor	240	Pandhacherry S S W	1210
Caragaooly S W	49	Horroor	177	Pandhacherry S S W	1307
Caroor	236	Hurrybur W N W	284	Pandhacherry S S W	70
Cashmere N N W	1294	Hydrabad N N W	208	Pandhacherry S S W	474
Cawpore	1200	Indore N N W	373	Pandhacherry S S W	21
Cattack N E	818	Igeram N N E	374	Pandhacherry S S W	373
Chandergerry W N W	271	Idgocoodah N	271	Pandhacherry S S W	281
Chatterpore N	918	Idgocoodah N	271	Pandhacherry S S W	387
Chittoor N N W	1065	Jaugurnauth N E	266	Pandhacherry S S W	295
Chioole N N W	367	Kamptee	1221	Pandhacherry S S W	137
				Pandhacherry S S W	422



## BOMBAY

BOMBAY, the capital of the presidency of the same name, or of Western India, is situated on a small island, in Lat 18 deg 56 min N, Long 72 deg 57 min E. A deep arm of the sea running between Bombay and the main land, sheltered from the surges of the ocean by four other islands, forms one of the most safe and best harbours in the world.

When taken possession of by the English in 1664 its population, consisting chiefly of outcasts, did not exceed 15,000 inhabitants. The present number is stated at about 240,000, chiefly Hindoos. The British inhabitants are very few in number. The native Parsees and Portuguese,—the Arabs, Jews, and other races, who resort to, and live in, this city, constitute the remaining population. The Parsees, of all the Oriental races, are the most enterprising, and hold the highest position.

The docks are commodious, but for repairing ships expensive. The ships built here, chiefly by the Parsees, are excellent vessels, but the expense of construction enormous, as they are altogether built of Malabar teak. They are probably the most durable ships in the world. But there are fewer built here than there were formerly. They are chiefly manned by Lascars.

The port charges are pilotage, anchorage, and buoy duties. The trade of Bombay with all places will be found stated in detail in the preceding tables of the commerce of the presidency.

If the projected railway from this port to the interior were completed, the trade of this capacious and admirably situated port, would no doubt greatly increase. There are several excellent institutions, periodical publications, newspapers, benevolent, and other societies established in the city, the details of which are too lengthy for us to introduce.

Besides the banks of the town there are branches or agencies of other banks, insurance offices, and brokers, a mint, libraries, &c.

The rise and fall of tide is from thirteen to sixteen feet. The docks were constructed for the repair of the largest ships by the East India Company. They are, we believe, now in the charge of Parsee superintendents and shipwrights.

*Rates of Commission in Bombay*—On the sale or purchase of goods of all denominations (except as under)

	percent	5
Purchase of all kind with the proceeds of goods sold and on which a commission of five per cent has been previously charged		2½
The sale or purchase of ships houses and lands		2½
The sale or purchase of opium		2½
The sale or purchase of diamonds pearl and jewellery of all descriptions		2½
The sale or purchase of treasure or bullion exclusive of one per cent on receipt of the proceeds		1
Freight freight		5
Shipping good of every description		2½
Shipping treasure bullion and jewellery		1

Ship's disbursements when no commission has been charged on freight or cargo	per cent	2½
Effecting insurances		¼
Settling insurance losses whether partial or total also on procuring return of premium exclusive of commission on receipt of cash		1
Del credere or guaranteeing the responsibility of persons to whom goods are sold on the amount of sales		2½
The sale or purchase of cattle		5½
Collecting house-rent		2½
Effecting remittances by bills of exchange (not being the proceeds of goods sold)		1
Taking up interest bills from the Company (exclusive of one per cent on remitting)		½
Sale or purchase of public or private bills of exchange		1
Exchanging Company's securities of all descriptions or investing money therein and on transferring government paper from one constituent to another		½
Surrendering or depositing in the treasury Company's security of all descriptions		2
Procuring money on <i>respondentia</i> or on loan		2
Recovery of bonds or bills for absentees, over-due at the period of their being placed in the possession of the agent		2
Debts, when a process at law or by arbitration is necessary, 2½ per cent and if recovered by such means		5
Managing the affairs of an estate for an executor or administrator		5
Guaranteeing bills bonds or debts in general by endorsement or otherwise		½
Attending the delivery of contract goods to the Company or individuals		1
Goods consigned and afterwards withdrawn, on invoice cost		2½
Bills of exchange returned noted or protested, &c.		1
Receipt of payment (at the option of the agent) of all moneys not arising from proceeds of goods on which commission has been previously charged		1
All cases where the debtor side of the account exceeds the credit side, including the balance of interest, commission chargeable on the debtor side at the rate of		1
Granting letters of credit		2½
Becoming security to government, or public bodies, in any case		2½
Goods consigned which are disposed of by outcry or sent to a shop on nett proceeds		2½
Depositing government paper as security for constituents		1

### Buoy and Anchorage Dues

BURDEN	Rate per Annum
	rupees
All ships and vessels, or boats, not receiving pilots --	
From 10 to 20 tons	3
Above 20 to under 30 tons	6
From 30 to 50 tons	10
Above 50 to 100 do	20
100 to 150 do	25
150 to 200 do	30
200 to 250 do	at

### CHARGES for Pilotage

DESCRIPTION	Paid Season	
	rupees	Moscoons
A ship of the line or 80 guns	100	140
A frigate or sloop of war	5	100
Square rigged vessels of all descriptions --		
Above 50 to 200 tons	50	75
" 200 to 400	55	80
" 400 to 500	60	85
" 500 to 600	65	90
" 600 to 700	70	95
" 700 to 800	75	100
" 800 to 900	80	105
" 900 to 1000	85	110
" 1000 to 1100	90	115
" 1100 to 1200	95	120
" 1200 and upwards	100	125

NOTE -- Foreign ships of war are to pay in addition to the above rates, 40 rupees

**LIGHT HOUSE DUTS**—All ships and vessels down to twenty tons, at 15 rupees per 100 tons per annum

All vessels under twenty nine tons burden, at 2 rupees per annum

There are no other port charges

**Moneys Weights and Measures**—Accounts are here kept in rupees each rupee being divided into 4 quarters and each quarter into 100 reas. The rupee is also divided into 16 annas, or 30 pice. An urdee is 2 reas a dooreea 6 reas a dooganey or single pice 4 reas a fudden, or double pice 8 reas a pancha is 3 rupees and a gold mohur 15 rupees. Of these the annas and reas only are imaginary moneys. The coins of Bombay are the mohur or gola rupee, the silver or Company's rupee and their divisions also the double and single pice the urdee, and dooreea, which are copper coins with a mixture of tin or lead. The following is the assay and sterling value of the present gold and silver coinage of Bombay—

	Gross Weight	Pure Metal	Sterling Value
Gold mohur	grs 180	grs 165	8 29 2
Company's rupee (silver)	180	160	1 11, if silver be taken at 5s 2d an oz and 2s 0½d if silver be taken at 5s 6d per oz

The Company's rupee has only been coined since the 1st of September 1833 but it is almost identical in respect of value with the rupees previously in circulation.

The charge for coinage in the Bombay Mint is 2½ per cent for gold and 3 per cent for silver, including the charges for refining. The machinery for this mint was sent out from England a few years ago and is complete, but very costly. At Bombay there are no banks, as at Madras and Calcutta, and paper money is unknown in mercantile transactions.

**Weights and Measures**—The weights and measures used at Bombay are as follow—

<i>Gold and Silver Weight</i>		<i>Grain Measure</i>	
1 wall = 4 475 grs		2 tipprees = 1 seer = 0 11 9 2	
40 walls = 1 tola = 1 9		4 seers = 1 pail = 2 12 12 8	
		7 pails = 1 parah = 19 9 9 6	
		8 parahs = 1 candy = 156 12 12 8	
		<i>Salt Measure</i>	
			cubic inches
		104 adowhes = 1 parah = 1607 61	
		160 parahs = 1 anna = 160761	
		16 annas = 1 rash = 2572176	
		The anna weighs 2½ tons, and the rash 40 tons	
		<i>Liquor Measure for Spirits and Country Arrack</i>	
		The seer weighs 60 Bombay rupees and equals 1 lb 8 oz 8½ dr and 30 seers make the maund	
		<i>Long Measure</i>	
		16 tussoos = 1 bath = 18 English inches	
		24 tussoos = 1 euz = 27	

<i>Pearl Weight</i>	
1 tucka = 0 208 grs	
13½ tuckas = 1 ruttee = 3	
24 ruttees = 1 tank = 72	

<i>Commercial Weight—Avoirdupois</i>	
	lbs oz dr
1 tank = 0 0 2 488	
72 tanks = 1 seer = 0 11 3 2	
40 seers = 1 maund = 28 0 0	

These weights are used for all heavy goods, excepting salt

## RIVER STEAM NAVIGATION OF INDIA

THE projected railways which in time must be executed,—the canals which have been to some extent executed,—and the late successful attempts to navigate the rivers of India, are the great means by the aid of which the great sources of India are to be developed. And we trust that during the period which remains unexpired of the East India Company's charter, the Directors and the Board of

Control, will decide upon measures, which will fully justify the Parliament in renewing that charter

The Ganges, and in the intricate channels of the Sunderbunds, are now successfully navigated by long, flat, strong, and remarkably buoyant iron steam vessels, some to carry goods, others passenger vessels, adapted to the navigation and climate of India. A very interesting account of this new mode of navigating the Ganges has just been written and published by Mr Albert Robinson, civil engineer, from which we have condensed the following passages. He had previously visited the United States, and examined the steam navigation of the western waters of America, and he proceeded to, and arrived in, India in 1843, and surveyed carefully, the Ganges, from Allahabad downwards. His friends in England, in consequence, formed an association to build in London iron steam ships upon his suggestion, to navigate the Ganges. He remained there until he established two of these vessels to his satisfaction on the waters of that river. He says,—

“It will be perceived by reference to the map, that the goods traffic to and from all the most populous and wealthy districts which lie upon both banks of the Ganges and Hooghly, between Benares and Calcutta, named Azimgur, Goruckpore, Ghazepore, Sarum, Turhoot Purnea, Dinajepore, Malda, Pabna, on the north bank, and Shahabad, Patna, Behar, Bhaugulpore, Moorshedabad and Nudya on the south bank, with a population of upwards of 15,000,000 and an area of 23,000 miles, and which include the cities and towns of Benares, Dinapore, Patna, Ghazepore, Buxar, Chuprah, Bhullea, Mongheer, Bhaugulpore, Carragola-Ghaut, Rajmahal, Rampore, Baulea, Jellinghee, Gorae, Gomercallee, Koolna, Moorshedabad, Berhampore, Cutwa, Nudya, must ever continue to be carried upon the Ganges.

*The Ganges*—“The country through which it flows may be said to be one immense plain, the soil of which contains a very large portion of sand, and is of course easily acted on by running waters. The bed which the river has formed for itself in such a soil is, as might be expected, tortuous or devious in its course, and of very irregular breadth and depth, being composed of loose sand, it is kept in constant motion, and the changes which occur in the depth and locality of the channels are incessant. The banks, too, are continually undergoing change through the action of the water undermining them at one place, and forming new banks at another. Flats or shallows intervene with deep narrow channels throughout the greater part of its course, and when the river is low, small shallow channels or runs are formed through or across the flats or sand-bars, and in one of these channels frequently is to be found the only passage for the navigation. The width of the river when low is from a quarter of a mile to one mile and a quarter, when high, from one to three miles, and in some places it extends over twenty or thirty miles of the flat country. The depth, when high is in the channels between thirty five and seventy-five feet, and when low between three and a half and ten feet. The perpendicular rise of water in the wet season at Jellinghee is about thirty two feet. The *Bhaugruttee*, though called a river, is a side channel or mouth of the Ganges, and through which the navigation is performed in the high-water season, the width varies from a furlong to a quarter of a mile, and during the navigable season the least depth is from three feet to twenty-two feet. For some months of the year it is not navigable for large vessels. The Hooghly, which is a continuation of the *Bhaugruttee*, and through which the navigation is continued to Calcutta, although resembling in its general features the great Ganges, is less irregular and of easier navigation. Its depth is generally greater than the Ganges, and the width of the channel is satisfactory, at Calcutta, where it is a

tidal river, it is nearly as wide as the Thames at Gravesend. The *Soonderbunds*, through which the navigation to Calcutta has to pass in the low water season, are in fact, small mouths of the Ganges, flowing to the sea through a delta of fine sandy alluvial deposit, covered with a rank vegetation and jungle. These channels are very numerous and reticulate with each other in the most extraordinary manner, like a labyrinth. Their width varies from only fifty feet to a quarter of a mile and being within the tidal action their depth is much the same at all seasons of the year and at low water is probably not less in the channels used by vessels than five feet. Their chief peculiarity is their extreme crookedness and sharp bends.

The seasons are the high water or inundation season and the low-water or dry season—the latter is unfortunately of the greater duration and extends over seven and half or eight months of the year—say half of October, all November, December, January, February, March, April and May, and sometimes half June—the lowest months are April and May and in the other months there is a gradual decrease and increase. The high water or wet season takes place in the four and a half months of June, July, August, September and part of October. The augmentation in the body of water is produced from two sources—1st the melting of the snows in the Himalayan mountains and elevated country, in which the Ganges and its tributaries—the Jumna, the Gogra the Gunduck, &c. have their sources—the water derived from the snows reaches the lower parts of the river by June, and 2nd, the rains which fall on the great plain of the Ganges during the months of June, July, August and September. By October the surplus water has been absorbed by the thirsty soil, evaporated into the burning atmosphere, or discharged into the sea, and the dry or low water season sets in. From March to June, the hot season before the rains, Nor-westers sometimes occur—these gales come on very suddenly and blow with great violence for three or four hours during which great destruction is caused among the native craft on the river. When the storm first commences the dust and sand are carried up in such vast quantities in some parts of the country, as completely to darken the air.

The course of the navigation, starting from Allahabad downwards, follows the main stream of the Ganges at both seasons for a distance of 580 miles, to the point where the Bhaugruttee forms a separate channel.

1. In the high-water season, the navigation is then by way of the Bhaugruttee for a distance of 135 miles to Nudya, where it enters the Hooghly. In the Hooghly, its course down to Calcutta is sixty-eight miles—total 787 miles.

2. In the low-water season, instead of entering the Bhaugruttee as above, the course of the navigation continues its way down the main stream of the Ganges, for a distance from Allahabad of 696 miles to the Gorae channel which diverges to the right or south westward, through the Gorae and the Barishee it pursues its course for 162 miles till the delta of the Soonderbunds is reached. Through the crooked and many named channels of the Soonderbunds it runs for 220 miles till it unites with the Hooghly at Mud Point, below Calcutta. It then ascends the Hooghly to Calcutta by the Slip channel, sixty nine miles—total, 1147 miles.

During the period of inundation the navigation presents few difficulties beyond the force of the current, to vessels ascending the river, which averages a velocity of four miles an hour for the whole distance and frequently at six and seven miles per hour, while at a few points its velocity reaches eight miles an hour. The descent is of course facilitated by the current. At this season there is depth of water over the shallowed part of the river for a vessel of almost any draught.

For the greater part of the low water or dry season, the Ganges is not navigable for vessels of much draught in many intermediate distances between towns upon its banks there is ample depth of water, but over the shoals and sandbars the depth varies from only three and a half to five feet, and in a particularly dry season, even under three feet. From the changeableness of the shoals and channels, and the intricacy of the latter vessels of every kind are in constant danger of running aground and nothing but the greatest vigilance of the commander and pilot can keep a steamer from running upon the sandbanks from whence she is dislodged with much exertion, and frequently after great loss of time. Native boats getting upon a bank or shoal at this season, and

when the river happens to be filling, are sometimes, from the want of energy of the native character, left high and dry upon the sand by the water receding, where they remain till the next rainy season. In descending with the current, the liability of vessels to run aground is far greater than in going up stream, as the ripple caused by the bar or shoal does not discover itself so much upon the upper side as the lower side of the bar, and as the vessel's progress with the current is so much more rapid.

"The velocity of the current of the Ganges is less at the dry than during the rainy season, the average between Allahabad and Rajmahal probably not exceeding two miles and a half per hour. The only difficulties met with in navigating the Soonderbunds arise from the narrowness of the channel and the acuteness of the angles formed by it. These obstacles, however, apply only to steamers in turning the bends. The tide governs the current, which is sluggish, and of course alternately flows up from as well as down to the sea.

"Notwithstanding all the impediments which nature has placed in the way of the navigation of the Ganges in the low-water or dry season, it is still even then available for carrying on the traffic of the country to an extent that the resources of science and capital would find it no easy task to provide a substitute for.

*Traffic*—At the Jungeepore toll on the Bhauguttee, the only point except Calcutta where there is any return made the number of these vessels which passed was, in the year 1844—50,320 boats, the tonnage of which was upwards of three quarters of a million tons. The articles enumerated consisted of grain pulse, salt, sugar indigo, cotton, saltpetre, oil, seeds mangoes, vegetables, coals, lime, fire-wood, straw, &c &c, &c. In the above, no account is taken of vessels with government troops, stores, or ammunition, nor of opium.

"The number of river craft arriving at Calcutta by the Soonderbund rivers, upon which toll was collected, in 1844, amounted to 125,000 boats, or an average of 340 per day,—total tonnage of which is about a million and a quarter tons. The traffic at these two points alone added together (which it is fair to do) amount to upwards of 2,000,000 tons, or four times as much as the whole sea traffic in ships to and from Calcutta: no account was taken of boats under the burden of twenty-eight maunds.

"The returns from the Government Inland Steam Department, in the same year 1844, gave thirty-nine voyages, carrying 45,500 packages of goods, besides treasure, and 2500 passengers, and show a return of upwards of 56,000*l*.

"From Mirzapore, a great mart in the Ganges, it is reckoned that 18 000 tons of cotton, 2000 tons of sugar, 1000 tons of saltpetre, 1500 tons of indigo, and 1300 tons of shell lac and lac-dye, are annually sent down to Calcutta, whilst there is received at Mirzapore from Calcutta, yearly, 8000 tons of metal and hardware, 5000 bales of twist, 3000 packages, British silk and cotton goods, and 10,000 packages of other piece goods.

"The far greater part of the enormous traffic on the Ganges is carried on by means of the native craft.

"The native boat is a strange, rudely constructed craft, the roof thatched with bamboo and straw. These vessels are from five to sixty tons burden, their length being from twenty-five to ninety feet, and beam nine to twenty-eight feet, with a draught of water of eighteen inches to five feet. They are managed by a crew of six to twelve men, who allow them to drop lazily down the stream, perhaps with a little aid from a sail and in ascending use the sail, the oar, or, when the wind fails, drag them with the truck lines attached to the mast, the men walking along the bank of the river. They are generally very leaky, and the cargo almost always suffers more or less from the leakiness of the boat, the imperfect protection from the weather afforded by the roof, or the dishonesty of the crew.

"They descend from Allahabad to Calcutta, a distance by the river of 800 miles, in about twenty days during the wet season, and from forty to sixty days during the dry season, stopping generally at night. The ascent, occupying from three to four months at all seasons. The lighter class of boats do it in about one fourth less the time. They are subject to such casualties as getting aground, being wrecked, and sunk by the North-

went to oversetting in the rushes of the river from mismanagement in tracking them up and to the thatch roof taking fire and destroying the cargo. These are the vessels by which the Ganges has been navigated from time immemorial, and no improvement would appear to have taken place in them. Previous to the introduction of European commerce and when the articles requiring to be transported were of a less valuable, and some of them of a less perishable nature, they answered every purpose since that event, the requirements of the traffic have changed considerably, and experience has proved that notwithstanding the low first cost of the native boat and the small expense of navigating them and consequently the low rate of freight, the conveyance of goods up the Ganges by them is both expensive and unsatisfactory while that of such produce downwards as indigo, sugar, and cotton, although less so, is still greatly and justly complained of. The losses by speculation have been continually on the increase of late years, and the aggregate of this alone must be enormous, whilst the uncertainty and irregularity of arrival is such as to set at nought any commercial calculation. Passengers are also conveyed by native boats named 'budgerows' these are principally used by the Europeans and the rich natives, and are comparatively few in number. They take nearly the same time to perform the voyage as the lighter freight boats.

*Indian Government Steamers.*—"The Honourable East India Company, with their usual zeal for the improvement of the country, very early sanctioned the introduction of steamboats on the Ganges. Captain Johnston, the present comptroller of government steam vessels at Calcutta, and Mr Peacock of the India House in London, took an active part in this matter. Captain Johnston brought the first steamer ever seen in India round the Cape named the *Enterprise*, and afterwards organised the government line of steamboats on the Ganges.

Under the administration of Lord William Bentinck, in 1834, the steam traffic of the river was greatly developed by the establishment of a regular line of steamers for the conveyance of government stores, troops, passengers, and merchandise. But although the government of India thus led the way, it was understood that it was not intended to discourage or restrict private enterprise.

Coal had then been discovered in several places, and at Burdwan, sixty-three miles from Calcutta mines had been opened and worked. This coal is, however, not so good as British coal, the estimation being that it is only equal to seventy five per cent of Newcastle coal but it is highly probable that as the pits are deepened the quality will improve. The Burdwan coal is now brought to Calcutta by the Damoodie river, at a cost of twenty shillings per ton, and to other places on the river at prices varying from eighteen to twenty seven shillings per ton. The price of English coals at Calcutta is from thirty to thirty-three shillings per ton.

The system of steam navigation introduced and continued by the Indian government, is that of placing the goods or passengers in small separate vessels, and the steam engine and coals in another, which tugs or tows the cargo-boat or passenger boat as the case may be. The steamers or 'steam-tugs' are generally of iron, and about 120 feet long, twenty-two breadth of beam eight feet deep, and draw, when fully loaded, from three to four feet of water. The engines are from forty to ninety nominal horses' power, and of excellent workmanship. The steamers are in fact similar to what were used on the Thames a few years ago only shallower, and of fuller build. The vessel in which the passengers are placed is termed an 'accommodation boat'. It is of similar dimensions with the steam tug and is fitted up with passengers' cabins and a cuddy athwartships dividing them. It carries only passengers and specie, and light packages and parcels. The freight-boat, or 'flat', is also of the same dimensions as the steam tug, viz 120 feet long and twenty two feet beam, and draws, when loaded about three feet. It has cabins for the captain and ship's officers only and takes no passengers.

One only of these vessels is tugged or drawn by the steamer at a time, so that the freight and the passengers are never conveyed together by the same steamer.

The twin vessels are linked to each other at the bows and stern by a flat beam of wood which acts as a hinge, and serves also the purpose of a plank for the crew to pass from one vessel to the other. When this system was introduced in India, there existed

no examples in this country of steamers carrying cargo upon a light draught of water, and as carrying power was a *sine qua non* in the Ganges, the plan adopted of double vessels was a very natural one. Besides, it seemed to present other advantages, such as the following: 'in case of getting aground, it would be easier to get off two small vessels than a large one, in the sharp turns or bends of the Soonderbunds, they could more easily wind their way through them than a long vessel, &c., the goods and passengers would be safer and cooler in a separate vessel.' The freight-carrying power of the cargo boat or flat is not, however, very considerable, the range is between sixty and one hundred tons of dead weight, varying with the season or depth of the river. This weight of measurement goods (that is of articles the bulk of a ton weight of which exceeds forty cubic feet) will of course make a great deal more tonnage upon which freight is chargeable. The capacity of the accommodation boat for passengers, owing to the large space deemed necessary for a cabin passenger in India, is somewhat limited, the average being cabins for sixteen passengers, with their servants, &c.

'The steamer or tug, and the vessels for freight and passengers, have each their own captain, officers, and crew, and the steamer has, of course, in addition, its engineers, stokers, &c.

'The speed of the government double steamers varies considerably, those of recent construction being the fastest. With an average cargo and the usual coals on board, the velocity of the slower ones through still water is probably six miles and a half per hour, that of the faster, seven miles and a half per hour. When going with the stream, the velocity of the current is of course to be added, and when going against it, to be deducted from the velocity through still water, thus in a current of four miles an hour it would be eleven miles and a half in one case and three and a half in another. Like the native boats, steamers are obliged to stop running during the dark of night. In the dry season, the average passage up is twenty four days, and down fifteen days. In the rains, the average passage up is twenty days and down eight days. Or during the dry season of fifty miles per day on the upward, and eighty miles per day upon the downward passage, and in the rainy period, of forty miles up and 100 miles down. The number of voyages made annually by each, has been nearly six. In 1844 there were seven government steamers with their accompanying vessels, kept in activity. This number has since been increased by two more, specially adapted for troops.

'The rate for passengers was fixed at 30*l* per cabin passenger for the whole distance, not including provisions, the passenger providing his own bedstead and bedding, according to the custom of India.

'The earnings of the government steamers, it is understood, have paid their cost many times over. They have unquestionably answered well in many respects.

'As to the question of the desirableness of the government keeping up a steam flotilla on the Ganges for the conveyance of troops, military stores, and treasure, it will be at once conceded, that to carry on the general steam traffic is not the proper business of the government. The field is far too extensive for the government to attempt to occupy it.

*Objections to the double vessel system*—'The first is the slowness of the performance of the steamers. Fifteen days taken for doing a distance of 800 miles with the stream, that is eighty miles per day, and twenty-four days against the stream, or fifty miles per day, must appear incredibly slow.

'2 The double vessel or tug system is wasteful of power. The resistance of water to vessels propelled through it is chiefly at the bows and stern, and not much at the sides of a vessel, where it is only that due to simple friction. There is consequently far more resistance than there would be in a single vessel of the capacity of the two. Now as wastefulness of power is the same thing as waste of fuel, and as that is the chief expense in all steamers, and emphatically so in India, this is a weighty objection.

'3 The force of the current in the Ganges, as already observed, varies greatly from place to place, setting down round the points in the bends of the river in a rush of six or eight miles per hour, while below the points the current may be running only two or three miles an hour, or there may even be a counter current or eddy setting upwards. When the double vessels meet these unequal or opposite currents they frequently become



unmanageable in spite of the greatest exertions of the helmsmen and crew of each vessel, fall foul of each other, and are driven at the mercy of the current sometimes a distance of four or five miles down again before they can recover themselves. At some of the 'rushes' of the river round the points during the high-water season, they are unable to pass up without the further aid to the machinery of bullocks and men, tracking along the shore with lines attached to the steamer.

"4. As to the presumed necessity for short vessels in the Soonderbunds, it did not appear to the writer to exist; and the double vessels, owing to the impossibility of steering them with precision in such places, notwithstanding their shortness, frequently strike against the bank in the sharp turns of the Soonderbund channels.

"5. The advantages of the separation of the passenger vessel or 'accommodation-boat' from the steamer, is probably in some measure counterbalanced by its being close behind, and receiving some of the products of combustion from the funnel of the steamer and the heat of the engines.

"6. In the rainy or high-water season, as has been shown, there is plenty of depth in every part of the Ganges, and it would then be very desirable to be able to load a large extra cargo; but the freight vessels in question, from their small size, admit of this to a small extent only.

"7. The expense of maintaining a nearly double personal establishment of captain, officers, and crew, which appears to be necessary upon the double vessel system, is a considerable item.

*New System.*—"Up to 1844, no attempt had been made by private parties to follow the example set by the East India Company. In that year, after Mr. Robinson communicating his views, a company was formed for establishing and running a line of iron steamers upon his plans for conveying freight and passengers between Calcutta and Allahabad or Mirzapore, and to which was given the name of the Ganges Steam Navigation Company.\*

Three steamers afterwards made to fuel on a new plan, for great speed and for the carriage of goods, were built for this Company, of which Mr. Robinson gives the following description of the first steamer, named the *Patna*, as actually constructed, and the second, named the *Benares*, as identical with the *Patna*.

*General Arrangement of Vessel, Engines, and Cabins.*—"The hull below the main deck is appropriated to cargo, with the exception of the space occupied by the boilers, and the condensers and air-pumps of the engines. The main deck projects over the sides all round, tapering in at the bows, forming 'guards' which increase the room on deck. The engine cylinders lie horizontally on the main deck. The saloon and cabins are also placed upon it, 'forward' of the engines and boilers. Over the cabins, and extending nearly to the stern, is a light promenade deck, and the part of it for cabin passengers is covered by an awning.

"The frame and deck beams and paddle-box frames are of iron, and the shell of iron plates; the main deck is of wood; the cabins and the promenade deck over are entirely of wood; the length is, at load water line, 195 feet; the beam or breadth of hull is twenty-eight feet; the extreme breadth over paddles is forty-six feet nine inches; the

\* The agitation of the question about the same time by other parties had the effect of drawing the attention of some of the Calcutta merchants to the subject, who got up another steamboat company, raised a capital, and ordered their steamers from London. It was named the "General Inland Steam Navigation Company," and is perfectly distinct from the association whose steamers form the subject of this paper. This company's steamers are upon the tug system, but differ from those of the government in being of greater power, and being intended to tug or tow two small cargo vessels at once, the passenger cabins being on board the steamer. The names of those which have been put on the line are, the *Sir Herbert Maddock*, the *General McLeod*, and the *Sir Frederick Currie*; the second of these was, however, unfortunately lost in the Hooghly, and the company have recently purchased the Assam Tea Company's steamer, *Assam*.

depth of iron hull is ten feet three inches at the engine-room, and the rest of the hull, seven feet nine inches the bottom or floor is nearly flat, rising on each side only sufficient to throw the bigge water towards the keel, the bows are full, but with a good and fine entrance, the stern is as full as was considered admissible, and is in character with the bows, the mean angle subtended by the bows is thirty-two degrees and by the stern fifty four degrees the 'parallel body,' or midship, without curves, is one-third of the length of the vessel, the tonnage of the hull, exclusive of cabins and upper deck, builders measurement, is 400 tons, the entire cubic contents of the interior of the hull is 38 434 cubic feet the machinery and coals occupy a space of 12,800 cubic feet, leaving for cargo a space of 25,634 cubic feet, or 641 tons measurement. The 'displacement,' or cubic contents of the immersed body or hull, and the weight of water displaced, or carrying power of the vessel, is, at each six inches draught, from two to four and a half feet, as follows —

At 2 feet 0 inches,	12,812 cubic feet	=	305 tons
2 " 6 "	16 625 "	=	266 "
3 " 0 "	20 000 "	=	328 "
3 " 6 "	24 498 "	=	391 "
4 " 0 "	28 437 "	=	455 "
4 " 6 "	32 437 "	=	519 "

"There is no external keel, it is replaced by an internal one, or keelson, formed of a light hollow iron beam, 2 feet deep and nine inches wide and which is riveted to the inner frames of the bottom of the floor. Between this keelson and the iron deck beams, and riveted at their upper and lower ends to both, are light stiff stanchions of iron, which have the effect of both trusses and ties, binding the floor and deck together. The sides of the vessel are vertical, and the iron frames which run up to form them finish at the gunwale in a strong cornice, formed of angle iron and a narrow plate. The heads of the frames, the upper edge of the top strake of plate, and the ends of the iron deck beams are thus all riveted together. The powerful connection by this means, formed between the bottom of floor and the deck, both by the sides of the vessel and the midship trussing, constitute the entire hull into one large hollow iron beam. The sides themselves are, for the third of the vessel's length amidships strengthened by diagonal ties crossing the ribs or frames at an angle of forty-five degrees, and riveted to each rib. All the iron in the frame, flooring, and shell, is of light scantling, but of a quality and make giving the greatest tenacity and strength.

"The paddle boxes are built upon the ends of two light hollow iron beams, which cross the vessel under the deck and project beyond the sides for the purpose, as well as for supporting the engine bearers. The paddle-boxes are framed of angle iron.

"The rudder is twelve feet broad, and is worked from a point at the back, instead of by a tiller.

"The rudder chains lead to a steering wheel placed near the bows upon the upper deck, from which position the helmsman and pilot command a view of the river and of the best course.

"The deck plank and covering of paddle-boxes are of teak wood, the former being only one inch and five eighths thick they are fastened to the deck beams and framing of paddle-boxes by wood screws.

"The entire weight of the vessel with paddle-boxes, and exclusive of machinery, cabins, and stores is 142 tons.

*Steam Engines* — "The engines are medium pressure condensing, unconnected, and of the nominal power of 120 horses.

*Cabins* — "The saloon and cabins for first class passengers occupy an area upon the main deck forward of the engines fifty four feet by thirty-two feet and stand eight feet high the saloon is forty feet by fifteen feet, and is placed lengthwise the end opening towards the bows. There are twelve private passenger cabins, averaging nine feet by seven feet six inches. The promenade deck over the cabins is continued over the engine cylinders, and to near the stern, under it also is the captains' and engineers' cabins, and a large space for light goods or carriages, horses, and deck passengers. The entire weight of the cabins and promenade deck is twelve tons.

"The weight of the vessel and paddle-boxes has been stated to be 142 tons, the engines, boilers, and propelling machinery and engine bearers, 106 tons, and the cabins and upper deck, twelve tons, making a total of 260 tons. In addition there is to be taken into calculation the water in boilers, twenty-one tons; fuel for twelve hours' steaming, ten tons; sundries, furniture, stores, &c., fifteen tons, making the working weight 306 tons. This weight requires an equal displacement, and which is obtained by an immersion of the hull to two feet ten inches. All above this will be the carrying power for cargo. Thus at three feet six inches she carries eighty-five tons; at four feet, 149 tons; and at four feet six inches, 213 tons 'dead weight' of cargo. The carrying power for cargo is of course diminished by the passenger carrying accommodation to the extent of the weight of the cabins and stores, shown above to be twenty-seven tons; and without these the working draught of the steamer would be only a fraction above two feet seven inches.

*Mode of Construction.*—"The iron vessel and the engines, which together form one of these steamers, are both designed in all their details by the same firm, who, being iron ship-builders as well as engineers, were enabled to produce a combination of the nature described. Each vessel and pair of engines were constructed simultaneously at their establishment; and when completed, the engines were fitted on board the vessel on the stocks; every thing was put in place, and the engines worked, to make sure that there would be nothing to fit or do to them abroad. The parts of the engines where they were joined to each other and to the iron vessel were then marked, taken asunder, and packed up for the voyage. The whole work of the vessel was then painted in the inside four different colours, each quarter being of one colour; and the plates of the shell and the ribs, as well as every piece, were marked with paint, and stamped with letters and numbers, to facilitate and insure the correct putting together in India. The vessel was then taken in pieces, and the whole carefully shipped and stowed on board a ship of the ordinary size, bound for Calcutta. Accompanying the parts was sent accurate drawings of the whole, and a model of the vessel, painted and marked exactly like the original. Upon arrival after only a four months' voyage, the parts were landed at the establishment of the 'Ganges Steam Navigation Company,' near Calcutta, the iron vessel put together in a dry dock, decked, and floated out. The work was performed chiefly by native mechanics, under the superintendance of the writer; and the first steamer was put together in *only nine weeks from the day of landing*. The engines were then fitted in, and the cabins put up, of teak wood, to the working drawings. The whole was completely finished and the steamer fitted out and started on the trial trip in a little more than four months.\*

*The "Patna."*—"Upon trying the engines, they were found to work with even more smoothness than was anticipated; the cranks went over the centres freely, and the reversing, stopping, and starting of each engine separately was performed by the link motion with the greatest ease and promptitude. The boilers were found to generate steam enough with the Burdwan coals, and easy firing. There was no perceptible vibration in the vessel from the action of the engines. The time taken for a distance of fifteen miles down the Hooghly, against the flood-tide, was 1 hour 34 minutes, and back again to the place of starting, with the tide, 1 hour 0·3 min.; more than eleven miles an hour. The steamer was by the action of the engines made to turn round in her own length several times. The *steerage* by the rudder was hardly as quick as was anticipated, but this was afterwards remedied.

\* The *Friend of India* newspaper, of July 2, 1846, observes:—"The next day, the *Patna* steamer, the first vessel of the Ganges Steam Navigation Company, was launched without noise or parade. She is the most magnificent river steamer ever launched in India, and has been put together in the short period of two months and five days. The commencement of these improvements in our internal steam communication after a pause of nearly twelve years, during which we have seen the truth of the old adage exemplified, that not to advance is to go back, will form a new era in the history of steam in India. Under the competition of private enterprise, we may now look forward to an increase of speed, and to such a diminution of expense as shall place the luxury of steamers within reach of the community generally, and take up the commercial freight of the country."

"Upon the 28th of September, 1846 the *Patna* took on board upwards of 200 tons of measurement goods, six carriages, and five horses reckoned to weigh 140 tons dead weight, twenty tons of coals, and thirty five passengers,—total dead weight 164 tons. Her mean draught of water was then 4 feet 5 inches—this was a larger cargo than should have been taken upon a first trip with an inexperienced captain, and at a period when the river was falling rapidly. The destination was Mirzapore, 706 miles above Calcutta, and eighty six below Allahabad. The river was then high with a strong current, so that the Soonderbunds were not resorted to and the short passage by the Bhaugruttee was taken. The passage was, with the exception of grounding several times, performed most successfully—the hauling off gear effecting at once the re-floating on every occasion but one, when, through mismanagement, the steamer stuck fast for three days. Notwithstanding this untoward event, the *Patna* reached Mirzapore on the 13th of October or fifteen days from Calcutta passing four government steamers. The average time of the government steamers up, in the month of October is stated officially at twenty two days.

"The downward passage was performed between the 16th and 20th of October, *via* the dreaded Soonderbunds, and the entire voyage thus done within a month.

"The second voyage of the *Patna* was performed both up and down by the Soonderbunds and without any incident beyond occasional grounding\*.

"The *Patna* continued to perform successfully her voyages between Calcutta and Mirzapore, under the command of her first captain but did not attain the expected shortening of the time till the voyage commenced upon the 20th of June, 1847 under a new commander. She then, with a full cargo on board, did the upward passage by the Soonderbunds route in twelve days, and the downward passage by the Bhaugruttee in six days and a half, and was only twenty days and a half absent from Calcutta.

"This performance is recorded by one of the public journals thus —

"We find that we were in error the other day when we assumed that the period of twenty days and a half in which the *Patna* steamer made her last trip to Mirzapore *via* the Soonderbunds and back through the Bhaugruttee, included only the time spent on the actual passage. It included, we are now informed the entire time of the vessel's absence from Calcutta,—voyage, stoppages, detentions, every thing —*Bengal Hurkaru*, July 20, 1847.

"The succeeding voyage of the *Patna* affords evidence to the same effect as it was done in even still shorter time, namely, nineteen days,—it is noticed by another recorder of passing events, as follows —

"The *Patna* steamer has again made one of her usual rapid voyages to and from Mirzapore. The upward voyage occupied eleven days and a half and the downward, excluding half a day's detention, five days. The distance is estimated at 730 miles. Including two days and a half in which she was detained she has left Calcutta and returned to it in nineteen days which is, we believe, the shortest voyage ever made —*Friend of India*, August 12, 1847.

"The second steamer, named the *Benares* was despatched to India in parts, and put together there in the same manner as the *Patna* already described.

"She left Calcutta on her first voyage on the 4th of March, 1847 when the river was at the lowest, and took the Soonderbunds route. Fortunately, the captain was an experienced Ganges navigator. The *Benares*, although a day was lost ground, reached her destination, Mirzapore, on the 16th of March, that is, in twelve days †.

\* Extract from the *Friend of India* December 1846 — "The two trips which the *Patna* has now succeeded in making have served completely to banish the idea that its great length would prevent its making progress through the corkscrew windings of the Soonderbunds. This vessel from the superior arrangement of its cabins not less than from its speed, appears to be a favourite if we may judge from the large batch of passengers who have just gone up in her. During the hot and sultry months of the year, she is sure to have a preference because of the excellent system of ventilation adopted through the vessel and which will tend to keep down the thermometer five or six degrees.

† From the "*Englishman*" March 13 1847 — "The *Benares* left Calcutta on the 4th instant at

"The down trip of the first voyage of the *Benares* by the Soonderbunds was done in nine days or seven less than the average of the government steamers in March."

"During the rest of the dry season, the *Benares* performances were equally satisfactory, making her voyages to and from Mirzapore within a month each.

Upon the return of the wet season (June, 1847) when the direct route by the Bhaugruttie was taken both ways her time was, up to Mirzapore twelve days and a half and down five days and a quarter,—absence from Calcutta, twenty days, including detentions and stoppages to coal, &c.

Both steamers have, since the above period till the date of the latest accounts, been regularly plying on the Ganges, carrying passengers and cargo. They have met with no serious accidents, and their average performances have been such as to justify the conclusion that the success of the principle is complete.

"*The Chunar*—The third steamer is of precisely similar form and dimensions, and consequently of similar displacement also to the *Patna* but is designed for cargo only; there are consequently no cabins but those for the captain and officers. She has non-condensing engines of 140 horse power. Both the vessel and her machinery are lighter than the *Patna*. The weights are as follow:

The vessel 136 tons—the engines and boilers eighty five tons—total 221 tons Dead weight without water in boilers, coals or cargo, two feet one inch and a half.

The '*Mirzapore* and the '*Ghazepore*' the fourth and fifth steamers, being exactly alike in dimensions and power, and nearly alike in other respects, a reference to one will apply with sufficient exactness to both. It will be observed that they are a great deal larger than the *Patna* and the *Benares*.

They are designed for cargo only—cabins for captains and officers, and protection for carriages and horses, and light goods on deck.

The dimensions of the *Mirzapore* are

Length at low water line, 250 feet breadth of beam, thirty-eight feet, breadth over paddle, sixty six feet depth amid hip, ten feet.

It was at Rajmahal on the 9th at 2.20 P.M. We extract from the published notices of our river fleet the time in which this distance has been done on the last upward voyages in January—

<i>Saldie</i> (Government steamer)	11 days
<i>Maddack</i> (Inland Company's steamer)	11
<i>McLeod</i> (ditto)	13
<i>Benares</i> (Ganges Company's steamer)	5 1/2

From the '*Friend of India* March 18 1847—The voyage of the *Benares* steamer is an event in the annals of river steam navigation in the Gangetic valley which deserves more than a mere passing notice in our brief daily epitome.

\* From the '*Benjal Ha karu* July 20 1847 The *Benares* steamer performed the passage to Mirzapore in twelve days and a half left Mirzapore on the 13th of July at 1 P.M. left Dinapore the 13th of July at 6 A.M. arrived at Calcutta the 15th of July at 4 P.M. time occupied in downward trip five days and three hours absent from Calcutta on the voyage, nineteen days and three-quarters including all stoppages.

It is the same (at an hour past)—The *Benares*, which arrived on Sunday left Cossipore (four miles above Calcutta) on the morning of the 29th ult. and returned to town on the afternoon of the 15th. It was on her way on what less than twenty days. It must be remembered however that she went up the Bhaugruttie while the *Patna* went through the Soonderbunds. The downward passage of the *Benares* has been rapid beyond example we believe, being only five days three hours from Mirzapore to Calcutta.

† With '*Friend of India* November 9 1847—The steamer *Benares* on her last trip, performed the distance between Mirzapore and Chunar thirty three miles in an hour and thirty minutes at the maximum speed (with the current) of twenty two miles in hour. During the rainy the splendid vessels generally reach Calcutta before their departure from Mirzapore is announced here.

† A violent accident of a serious nature has frequently happened to the government steamers and the only one that occurred totally lost. The loss of the '*Jellinchee*' is a recent instance. The Inland Company's steamer '*General McLeod*,' was lost soon after being placed upon the river.

"The displacement is at each six inches draught of water as follows

At 2 feet 0 inches	330 tons	At 4 feet 0 inches	745 tons
2 6 "	431 "	4 6 "	863 "
3 0 "	533 "	5 0 "	960 "
3 6 "	639 "		

"The measurement of the hold for cargo is 54,000 cubic feet, clear of every thing or 1350 tons measurement.

"The weight of the vessel alone, including paddle-boxes and deck-houses, without machinery, is 224 tons, the weight of engines, boilers and paddle propellers is 134 tons, consequently the entire steamer complete weighs 358 tons and the light immersion or draught without water in the boilers, or coals is only two feet two inches. These steamers possess great carrying power, immense stowage for cargo, are lighter in proportion to the size than the *Patna* and draw less water.

"The chief difference between the design of the iron vessel and the *Patna* consists in the deck being convex, or curved upwards transversely like the back of a violin, and in the *bracing* or *trussing* between the deck and the bottom or 'floor' of the vessel being in the form of a diagonal lattice work, instead of vertical bars or stanchions, as in the *Patna*. The curvature of the deck was admissible from the absence of passenger accommodation or cabins, and the diagonal framing or 'spine' was admissible from the circumstance of the engines being non-condensing, and entirely above deck.

"These three steamers, after being completely fitted with their machinery in the building-yard in London, were sent out to India in parts, in the same manner as the *Patna* and the *Benares*. They are all except the *Ghazepore*, now (April, 1848) launched on the Ganges.

"The *Mirzapore*, at the public trial which took place on the 24th of January, 1848, proved perfectly manageable, and steered well, notwithstanding her great size the speed was fully equal to that of the *Patna*, and close upon twelve miles per hour.

"She started upon her first voyage on the 3rd of February, when the river was extremely low and unfavourable to navigation, laden with 230 tons weight of cargo and coals, taking the Soonderbunds route. On the 6th of February, she had passed through the Soonderbunds on her upward voyage in the most satisfactory manner, and reached Dinapore or Patna in eleven days from Calcutta. Thus, under all the disadvantages of a first trip, and the bad state of the river, performing this distance in five days less than the average time of the government steamers at that season.

"The new steamers put upon the Ganges up to the present time consist as has been stated, of—two of 120 horses power each for passengers and cargo one of 140 horses' power, for cargo only, two of 250 horses' power each for cargo only.

"The total cost of the whole five steamers completed and started on the Ganges, exclusive of spare boilers, &c., and of interest upon the capital employed prior to the steamers coming into activity, does not exceed the sum of 96,000*l*, which is made up thus —

Steam-engines (880 horse-power)	£
Vessels, cabins, &c.	41 800
	39,086
	-----
Cost in London	81 486
Transportation to India	5 875
Re-construction and equipment	9 199
	-----
Cost on the Ganges	96 560

\* "*Friend of India*" 17th of February 1848 — "The Ganges Company's new boat the *Mirzapore* known as the 'Big Boat the Great Eastern' which we noticed as having started on her first voyage reached Dinapore in eleven days from Calcutta which taking the season of the year into consideration, the lowness of the water the frequency of sandbanks and the want of any regular channel, she has done exceedingly well. She passed through the intricate channels of the Soonderbunds beautifully, removing all doubts and fears that were entertained by many on this head before her starting. The river is worse in many parts this year than has been known for many years."

To which perhaps should be added interest for an average period of eighteen-months upon a part of the sum, say upon 55,000*l.*, and seven and a half per cent per annum, 6187*l.* This would make up a sum of 102,747*l.* No preliminary expenses or charges for the 'direction' were incurred. Be it observed this is no mere estimate, but the actual cost of the thing done.

"The charges of running these steamers are made up of items as nearly as possible like those incurred by steamers in this country; they may be classed under the heads of 1st. fuel; 2nd, the personal establishment (or the salaries and wages of the commander, engineers, officers, and people on board); 3rd, stores and provisions; 4th, repairs; 5th, annual depreciation; 6th, insurance against loss and fire; 7th, management. The experience had upon this subject, not being as yet sufficiently extended, nor the time sufficient to bring the arrangements into that order which results in economy with efficiency, an attempt to exhibit the total charges would be only likely to mislead.

"The item of fuel is at present a heavy one (about 350*l.* each voyage of the *Patna*); there is, however, little doubt that in another year or two coals will be delivered on board at a lower price. The cost of the personal establishment of each steamer is, even at its present high amount (about 148*l.* each voyage of the *Patna*), much less than the steamers on the tug system.\*

**CONCLUDING REMARKS.—Pilot Service on the Ganges Navigation.**—"The unstable nature of the bed of the Ganges, noticed in a preceding page, is a great impediment in the way of obtaining an effective pilot service; but in the Lower Mississippi, although there is a greater depth of water, it is nearly as changeable, and yet we find a river-pilot service of the most efficient kind. Three things combine to produce the difference; on the Mississippi, hundreds of steamers have for many years been plying; the pilots are men of high intelligence and generally of education, and they are regularly trained to their vocation, and do nothing else; whereas on the Ganges, until recently, only five or six steamers have been on the river; the men who act as pilots to them are not even of the most intelligent class of natives, and they have neither been trained to the business nor do they follow it regularly. The consequence is, they are merely pilots in name, and the captain of the steamer is virtually, in most cases obliged to act as pilot himself. Notwithstanding the rapidity of the changes that take place at particular seasons in the bed of the river, good pilotage would be almost invaluable. A higher class of men must be attracted to the service by better pay, and the stimulus applied to keep up attention, of prizes for the greatest amount of good service in each division of the river.

**Improvement of the Navigation.**—"When it is considered that a steamer that can carry only itself at two feet six inches draught, shall carry 200 tons at three feet six inches, 400 tons at 4 feet six inches, it will be perceived that the last foot is worth the other three and a half. A consequence flowing from this is, that with the first-named draught of water, the steamer, if dependent upon freight, could only be run at a loss; with the second would probably pay a profit; and with the third would return a large profit.

"But the advantages which would result to steam navigation from a greater depth of water of one and a half or two feet, in the present shallow parts of the river, do not stop here; a better form might be given to the freight steamers, so that less power would propel them at the same speed; and less power of course implies a lesser weight of machinery and fuel, with a smaller expense of running. The rates of steam freights might be reduced and the sphere of utility enlarged. Passenger steamers of a speed of sixteen or eighteen miles an hour, with spacious and elegant accommodation for a hundred passengers, and which would, with a good pilot service, perform the distance up to Allahabad in from five to seven days, and down in two and a half to four days, according to

\* The personal establishment of a government steam-tug and cargo flat is as follows: two captains, two mates, first and second engineers, one clerk, two serangs, two tuddals, eight seconies, twenty-four Lascars, one tindal of stokers, eight stokers, four cooks, two topazs; and costs, including provisions, about 360*l.* per month, or 2400*l.* per annum, which, divided by even seven voyages per annum, gives 343*l.* per voyage.

the season, might be introduced on the Ganges. The traffic by the native boats, too, would be greatly facilitated.

"The importance of increased depth, thus shown to be so great, naturally leads to the inquiry whether it is practicable to obtain it, and if it be practicable, whether at an expense that could be met.

"It has been already stated that the bed of the river is composed of sand, the exceptions (of which there are few) do not affect the question, because there is abundance of depth over the hard parts of its bed. This sandy formation, which is the cause of the evil of the extreme shallowness, affords facilities for remedying it, and the deepening of the channel where necessary without permanent or costly engineering works, is a task which the author believes to be perfectly practicable. All that is wanted is to aid the slow but certain powers of Nature by the application of scientific skill and practical experience combined with the cheap labour and the simple means and appliances already in existence in India, and with, in some place, the steam-engine applied to machinery afloat.

"The principles upon which these views are based are, 1st, that the water of the Ganges holds in suspension the fine sand with which it forms the shallows, the bars, and the banks, 2nd, that just in the measure that the water is kept in agitation, (whether by the natural action of the current or other means) will it hold more or less of this fine sand in suspension, 3rd, that wherever the agitation exceeds a certain degree at any spot there the water is deepening, and wherever at any spot it is minus this degree of agitation, there the water is shoaling.

"In the month of April (the worst part of the dry season), in 1847 at a place a few miles above Benares, the water had gradually shallowed to 2 feet 6 inches. Upon this shoal several of the government steamers, as well as the new steamer *Benares*, stuck fast and met with much detention before getting over. Being near a military station, the officer in command of it took great interest in the proceedings of getting off the *Benares* and after she had passed down, he in the most spirited manner (acting upon the writer's suggestion, that some good result might be produced by manual interposition) collected a number of natives whom he directed so skilfully to disturb the sand at the bottom of the water with pointed poles or bamboos, that in a few days so much of the sand had been carried away by the current, that a channel through the shoal of four feet and a half deep, and amply wide enough for a steamer, was thus formed. This channel then remained open during the rest of the dry season, and the steamers passed through it without once grounding.

"It is perfectly curious to observe, as the writer has often done, the way in which any slight artificial obstruction, such as even a pole stuck into the bottom, or parts of wrecks of native boats, collects sand about it, and produces a miniature bank or shoal, the effect of which is, of course, to obstruct the passage of the water at the spot, and to force it to run at a greater velocity on one side, and consequently to deepen the channel there.

"The means of effecting the contemplated improvements would not be wanting: they may, indeed be said to exist already in the tolls collected on the boats passing through the *Bhaurutte*, to the amount of 16,000*l*, and through the *Soonderbunds* to the amount of 17,000*l* per annum, and even additional tolls would be readily and freely paid both by the native boat, and the steam traffic for real improvements in the navigation but, as already observed, permanent and costly engineering works are not necessary, and it is believed the outlay required would be very moderate, whilst enormous good to the country would be the result."



STATEMENT of Traffic on the Rivers Ganges and Hooghly, from officially authenticated Government Returns

GOODS TRAFFIC TO CALCUTTA	Tonnage
In the year 1844-5, it appears from the official statement of the collector of tolls at Fungespoore on the Bhagirathi River that boats passed through that branch of the river containing 21,437,750 maunds or taking 2 maunds to the ton the tonnage of the laden cargo boats was	796,413
To such the cargo coming through the rivers of the non-tributaries a toll is imposed on the vessels navigating the Hooghly and the circular Canal at Calcutta. The toll is half a rupee for every hundred maunds of tonnage (boats of less than a hundred maunds not being counted) and in 1844-5 it yielded 177,791 rupees, showing that 3,55,360 maunds of tonnage had passed through it, which at the rate of 27 maunds to the ton gives per annum	1,310,970
Traffic in native boats is therefore	2,112,163
In 1845-6, seven steamers made 39 trips upwards and carried 112,765 measurement feet, and 110,099 lbs weight of cargo. reckoning a cubic foot to weigh 30 lbs we have carried upwards by steamers	2,097,675
The goods carried downwards is about	
TOTAL of Goods carried on the Ganges and Hooghly	2,115,885

## MISCELLANEOUS STATEMENTS

COMMUNICATIONS WITH INDIA.—A fleet of splendid ships, built in the docks of the river Thames, the Tyne, Mersey, and Clyde, belonging to private builders and shipowners, have replaced the East India Company's fleets, and carry on a much greater trade than the latter ever did between the United Kingdom, and countries east of the Cape of Good Hope. Those ships, built with several decks, carry passengers and merchandise of all kinds. (See Tables of Navigation, &c., with Oriental Countries, in a former part of this work.)

STEAM NAVIGATION WITH INDIA.—The enterprise carried forward on a magnificent scale with superb steam ships, by the Oriental and Peninsular Company, from Southampton to Egypt, and from Suez, by the Red Sea, to India, Ceylon, Singapore, and China, has rendered the communication with Asia wonderfully short and certain in regard to time, and there is no doubt that steam communication with all parts of the East, as with every part of the world, will rapidly increase and, great as it now is, will yearly acquire more power and importance. The East India Company's steamboats, which were not at first efficient, have been replaced by steamships of a superior character.

THE RED SEA PASSAGE.—The length of the Red Sea, from the Straits of Bab el Mandeb to Suez, is 1200 miles, its medium breadth about 150 miles, and its direction nearly north north west, and south south east.

Its coasts on either side are fringed with coral reefs, which render it dangerous, in navigating it, to approach near its shores, but otherwise it does not appear to be of more difficult navigation than any other narrow sea. In the southern part of it,—say from the latitude of Jidda to Bab el Mandeb, being about one half of its whole length,—the southerly monsoon predominates nearly two thirds of the year commencing in October, and ending in May or June. The northerly winds then set in, and continue about four months,—say June, July, August, and September.

Outside the Red Sea, in the Gulf of Aden, the wind generally prevails from the eastward for six months, say from October to May, and from the westward during the other part of the year

In the northern part of the sea, from Jidda to Suez, but more particularly near to Suez, the prevailing winds for nine months of the year are northerly, and in the months of June, July, and August, it is very difficult for sailing vessels to beat up to Suez

In this part of the Red Sea, southerly breezes are at all times but of short duration

The best time of sailing from Suez for India, &c., is about the end of August, which will enable vessels to clear the Straits of Bab el-Mandeb in September, before the easterly winds commence in the gulf outside

**RAILWAYS** No country more than India naturally requires, for the development of its resources, the construction of railways. None of those projected have as yet been commenced. We trust that this neglect will not continue long, and that the company or individuals will immediately commence railway operations

**NORTH WEST, AND NEWLY-ACQUIRED TERRITORIES**—These extensive regions ought to afford new openings for commerce, and, under British rule, will no doubt acquire importance as places of trade. The obstacles are those too generally common to India—the difficulties of internal transport. But the new and projected steam vessels, adapted for the navigation of the Ganges and its branches, and even for the Indus and its branches, and the completion of canals and the Bombay railroad, would open thoroughly to our commerce these fertile and splendid regions

**INDIAN STATISTICS**—The Supreme Government of India has turned its attention earnestly to the collection of more correct statistical details regarding the different presidencies and dependences, and the following circular has some time ago been issued to its officers by the Court of Directors, and which we think may be of interest to some of our colonies.—

*Our Governor-General of India in Council.*—1 The great practical importance of statistical inquiries, and the attention which they now receive from the most enlightened European Governments, have induced us to take measures for investigating the statistics of the countries under our administration, and for arranging and preserving in a form convenient for reference the information which may be attainable

"2 With the view of accomplishing these ends, we have formed a statistical department in our home establishment in which the requisite inquiries will be conducted, and the materials thereby obtained classified and compared

3 The voluminous records and documents in our possession contain a vast amount of statistical information, and the labours of the new department will in the first instance be directed to extracting and rendering it available for reference. These duties, which have already commenced, will continue for a long period to claim a large share of the time and attention of the department, but the results will be imperfect unless by the co-operation of our Governments in India in collecting and transmitting statistical information we are enabled to remedy the

defects, correct the inaccuracies, and as the condition and circumstances of all countries are in many respects constantly varying, to note the changes which time or other causes may prove.

"4. We do not doubt that our servants will cheerfully afford their assistance for these purposes; and as the aid which they may render in this respect is not intended, and must not be permitted, to interfere in any degree with their ordinary duties, no detriment will arise to the public service, but on the contrary much advantage may be expected from the transmission home of such information as to local details which so many of our servants cannot fail to possess.

"5. Information will be most desirable on such subjects as the following:—

"*Land.*—Area—Geological structure—Natural aspect—Soil—Atmosphere and Climate—Productions—Modes of cultivation—Prices of principal products—Tenure and occupation—Modes and rate of Assessment—Labour employed, and its remuneration.

"*Water.*—Navigable Rivers—Description of—Length of—How far navigable—Vessels employed on them,

"*Lakes.*—Description and situation.

"*Canals.*—Their purposes—Length and depth—Vessels employed on them—Cost and return on the outlay—Wells and Tanks—Means of irrigation in each district—Harbours, and Shipping frequenting them.

"*Cities.*—Towns and Villages—Situation and general description—Number of houses, and whether Puckha or Kuteha.

"*Population.*—Numbers of people of different descriptions—Employment—Languages—Condition—Health and Disease—Ditto of Troops especially—with presumed causes of healthy or diseased state, and the treatment (not strictly medical) found to be useful.

"*Wealth.*—Education, and method of pursuing it—Charitable Institutions not Educational—State of litigation and of crime—Police, number, remuneration, and efficiency.

"*Commerce.*—Manufactures—Capital employed—Imports and Exports from Official Sources—Exchange—Weights and Measures—Coins—Banking operations—Lending and borrowing—Modes of transit and communication—By Land—By Water—Impediments, and their duration—Fords, Ferries, and Bridges—Postal arrangements—Taxation—Sources of Revenue, and produce of each Tax—Mode of Collection—Number in Sebundy or other Corps, engaged in collecting Revenue—History and Antiquities, facts illustrative of early or more recent history, and of changes, Political or Agricultural—Public Buildings.

"6. We need scarcely observe that in Statistical investigations, the most rigid accuracy as to matters of fact is indispensable. Erroneous information will be worse than none, because it can but tend to mislead.

"7. There may be some objects, especially those relating to physical science, with which our Servants generally may not be minutely acquainted, and no statement on these or any other matters of inquiry will be of any value unless they be both precise and accurate. Where the requisite measure of scientific knowledge is not possessed by others, it may, perhaps, in many cases, be supplied by our Medical Officers, and their aid will, we doubt not, be cheerfully rendered whenever required.

"8. In conclusion, we direct attention to the following general instructions:—

"9. In all cases where practicable, reports should be the result of the personal knowledge of the Officer reporting, and where such is the fact it should be mentioned.

"10. Where from any cause the personal knowledge of the Officer cannot be extended to any object of inquiry, the authority on which the reported facts rest must invariably be stated either in the margin or in the body of the report.

"11. When estimates only can be furnished, the grounds of each estimate must be stated, and the reasons for adopting it.

"12. Where information is orally given it should be committed to writing at the time—in like manner personal observations should be recorded at the moment of making them.

"13. In addition to the names by which places are known among Europeans, it would be desirable that the original names should be given, both in the Devanagari\* and Urdu character, according to the best authorities, especially local and native.

"14. In regard to coins, weights, and measures, care must be taken to preserve uniformity as to valuation, comparison, and conversion, and to insure this, Prinsep's 'Useful Tables' may be taken as a guide.

"15. Where any material variations exist in different parts of any country, or divisions of a country, reported on, the nature and limits of such variations should be precisely pointed out.

"16. It will be observed that the greater part of the instructions above are designed to ensure accuracy, the importance of which we have already adverted to. It is the more necessary to

\* "The Proclamation and State Advertisements in the *Calcutta Gazette* are usually printed in the Devanagari, as well as in Urdu or Arabic character."

dwell upon this point, inasmuch as some previous attempts to afford statistical information are unsatisfactory, because obviously incorrect

17 Thus in a calculation\* made of the population of the North Western Provinces in 1826 (excluding the Ceded Districts on the Nerbudda and those ceded by the Rajah of Berar), founded on an actual enumeration of the villages in those Provinces and a partial enumeration of the houses, the amount is taken at 32,206 806 and the number of square miles occupied by this vast mass, as ascertained by measurement upon a map, is stated to be 66,510. Thus rejecting fractions, it would give a population 484 to the square mile while in an estimate of the population of the principal portion of the Bengal Presidency in 1822 the amount is given at 37,503 365, and the amount in square miles (ascertained as in the North Western Provinces by measurement upon a map) at 1,3802 affording no more than 243 inhabitants to the square mile little more than half the number claimed for the North Western Provinces notwithstanding that the Lower Provinces contain the great Cities of Calcutta Dacca Moorshebad and Patna, and the populous tracts around them

18 But the population of China universally considered one of the most densely peopled countries, is, according to the highest native estimate only 277 to the square mile †

19 Further, in a statement of the Statistics of the North-Western Provinces printed by order of the lieutenant-governor and bearing date the 25th of February 1842 exhibiting a view of the area and population of twenty two districts constituting by far the larger portion of those provinces, we observe particulars which lead us to suspect that this latter document is not trustworthy Algnrk a district without any considerable town is stated to have an agricultural population of 56 679 and a non-agricultural population exceeding it more than eleven times the number given being 648 499 while the district of Benares containing the great and populous city of the same name which with its suburbs has been estimated to contain 200 000 souls is said to have 209 157 agricultural inhabitants, and only 145 940 non-agricultural ‡

20 We notice these extraordinary errors, that we may impress upon those who may be called upon to act upon our present orders the necessity of employing such vigilance and attention as may be sufficient to guard against the transmission hereafter of any statement so deficient in accuracy

21 It should be fully borne in mind that every statement that may be furnished will undergo searching examination at home and we trust that each one will be prepared with such care as may insure our approbation

In the Calcutta Englishman we find that the local authorities are beginning to act upon the foregoing instructions, and the several darogahs have been ordered to ascertain within the shortest period practicable —

1st The number of date-trees in every village, and the approximate quantity of molasses they are likely to produce

2ndly The number of beegahs cultivated in every village with sugar-cane, and also the approximate quantity of molam likely to be obtained

In furtherance of the above gangs of peons have marched out from the thannahs in every direction (with the usual intimation from the darogahs not to forget bringing one rupee nuzzur from each village) to attend to the wastes of the Ozoor and probably we shall in a few days hence, hear the result. You may imagine the strange impression which such inquiries have caused on the narrow minded ryots who already conjecture that the Company is going to establish sugar factories to replace the silk ones they have given up they, in consequence apprehend lots of oppression

Circular Order of the Board — I am directed by the Sndder Board of Revenue to request that you will obtain and submit in the annexed form with the least delay possible for the information of the government of India the particulars therein indicated respecting, the cultivation of sugar, and the manufacture and consumption of sugar and goor in the several districts subordinate to your control

2 The information being immediately required you will be pleased to consider this an urgent call

\* Estimated cultivation of cane in biggahs of feet square each.

† Vide Statements of the extent and population of British India as officially returned by the Searcher of Records of the East India Company in first Appendix to the third Report from the Select Committee of the House of Commons 1831. These statements have been adopted by the Honourable Mr. Elphinstone. Vide his History of India, vol 1 p 5

‡ Census taken in 1812, vide Davis's 'China, p. 418'

§ According to Mr. McCulloch, vide 'Geographical Dictionary' vol 1 p 852 the relative density of the population of France, abounding as it does in capital manufactures, and large towns, is nearly 164 to the square mile

' Estimated produce from cane in maunds of goor of	lbs each
The estimated number of date-trees	
The estimated produce from date in maunds of goor of	lbs each
The estimated consumption of the district whether in sugar khar goor, or the raw cane itself the whole being reduced into their equivalents in goor in maunds of	lbs each
Computed at an average of	per head during the year, on the assumed, or ascertained population
The object sought by the returns is to ascertain the quantity of sugar produced and the quantity consumed in India.	

The form sent is to show the best way of furnishing the information

As the produce is exhibited in different conditions it is desirable to adopt one into which all the others may be converted. In the above form goor has been taken being the denomination of the sugar after the first boiling of the juice expressed, and the equivalents in goor of all the other quantities may be easily ascertained by inquiry. More than an approximation to the actual consumption is not expected. At the close of the heading of the last column is suggested what appears to be the readiest mode of attaining that

## SCINDE

**KURRACHEE** — When this country was subjected to British authority it was divided into three districts of Kurrachee, Hyderabad, and Shikarpore. The first is considered the favourite station, and has the advantage of the sea air, but there is great scarcity of good fresh water. For a small civil station it is well adapted, but not for the head quarters of a province. The buildings that have been erected for the civil and military service are numerous, but few are well built. The barracks are commodious and comfortable buildings, well situated. The horticultural garden does great credit to those who have planted and superintended it. The right bank of the Indus forms the principal boundary line of this division until within a few miles above Sewan.

**HYDRABAD** is a sudder or a collectorate station, far more central than Kurrachee. It was so during the Sikh rule. This large, dirty city is situated on a hill to the north of the fort. When the filthy state of the town is taken into account, it would be considered tolerably healthy, were it but kept in a clean state. The fort and the mud wall tandahs are the residences of Europeans, the latter kind of uncomfortable erections are also dwellings of the natives. The Hyderabad district includes all the country between the left bank of the Indus and the desert, and northward as far as the territories ceded to Ali Morad.

**SHIKARPOR** is not situated on a navigable river. This district extends northward to the boundaries of the independent states on the right and left shores of the Indus.

*Scilicet of the Scindian Provinces* — "Near the banks of the river the soil is in many places of a loose sandy description, but where this does not form the principal characteristic, it consists of a fine loamy rich clay, exceedingly fertile, large tracts of land are impregnated with nitre and of course valueless for agricultural purposes. The hills are composed of sandstone, and therefore barren, still to the distance they form a pleasing back ground to the view and a relief to the eye. Some of the limestone occasionally met with are of a variegated nature, red and green hues. Numerous fossil sea shells have been discovered in these hills, full 200 miles from the sea.

*Irrigation*—“This is principally effected by river and canal water wells are very seldom resorted to During the height of the flow of water, which lasts about two months, little or no exertion is necessary for leading them to an approximate land At other times the Persian wheels are used these are of a most deplorably clumsy construction, generally worked by a camel, whose tall ungainly gait looks most miserable, and even ludicrous, when harnessed to the apparatus blindfolded, and stalking round and round all day the trough that receives the water from the pots on the wheel is so badly constructed, that full a moiety returns from whence it came, thus causing double labour When the rivers get very low, and the waters have to be raised fifty or one hundred feet, it is usual to have a reservoir midway, and in that case two wheels and a double set of camels, or cattle, are required to bring the water to the desired level Canals are constructed in every possible direction, but though necessary, they are the cause of constant expense and vexation The canal clearing season is the annual harvest-home to numerous people, who receive large advances for clearing them of the sand &c, which settle in the beds during the past inundation It is usual with the parties thus engaged to put off all debts and difficulties till this period when they are liquidated instantaneously from the advances received from government It appears a necessary evil, but no doubt, when time will admit, the sarkar will get ten times the labour, and consequently good, done for one-half the present outlay Watercourses are constructed of a considerable length from the different canals these intersect the country in every direction, and greatly impede travelling As rain cannot be depended on, these artificial contrivances are actually necessary When, however, by good chance any heavy rain falls about the end of June, it proves a perfect godsend, as it enables the seed to be sown before the rise of the rivers Such seasons prove plentiful but they are rare indeed

*Cultivation*—“As the natives of Scinde have not yet learnt the value of an export trade, the cultivation of the country is confined to such produce as they require for home consumption Indigo, cotton, tobacco, &c, could be grown to any extent, and prove as productive as in any part of India—but at present these staple articles of trade are neglected except to the extent of local consumption, and will be so till European capital and skill are brought into play In Lower Scinde the staple growth consists of Joar (*Holcus Sorgum*) and Bajree (*H spicatus*) and Dhan This harvest, which is gathered in December and January, is that which is principally depended upon Dhan proves highly productive on well-flooded lands, when the river has risen to its full height, but in some seasons this crop fails, and cannot be depended on as well as the first mentioned grains, which are produced by artificial irrigation The sugar cane thrives well in many parts of Lower Scinde, is capable of vast improvement, and might be greatly extended Indian corn, sweet potato (*Convolvulus batatas*) and various other nutritious productions thrive well, but the cultivation is very limited indeed scarcely enough for local consumption In Upper Scinde, wheat, barley and gram are staple grains under cultivation, and any excess of produce finds its way by easy transit to Lower Scinde, where it is retailed to great advantage, and at a high price

*Jageer and Waste Lands*—“The Jageer lands are far more extensive in Lower than Upper Scinde They comprise more than a fourth of the territories attached to the British rule It was a wise policy, and certainly a just one of Sir Charles, to restore to the Jageerdars their rent-free lands, and his orders, from all I can hear, have been judiciously carried out When lapses by death take place in any of the Jageerdars who have been confirmed in their Jageers by the English government, a fourth of the value or produce of the said rent free lands, viz, the Jageerdar's share, is to revert to government This is a fair provision, as it does not affect the incumbents, and may be looked upon in the light of tribute These parties have undisputed and quiet possession of their lands, and where they derive water for irrigation from canals formed at the expense of government, there they are called upon to pay a certain sum as their share for the benefits derived

“The waste lands are very extensive, principally situated in unfavourable localities for irrigation Such tracts as are impregnated with carbonate of soda, nitre, and muriate

of soda, are of course utterly unproductive, and the extent of such tracts is very great, the waste lands first mentioned are not however completely useless, as the shrubs and jungle found on them serve to feed large herds of camels and cattle.

*Population*—“The Mussulman sect predominate over the Hindoo, it is said, by three to two. A year or two ago an attempt was made to ascertain the extent of the population, both as to number and classes, but the people appeared averse to giving the necessary information and the governor has a too noble and English spirit to ascertain the fact by force—all attempts were therefore withdrawn, and it must be left to some future period to ascertain the fact. It is next to impossible to form a tolerably correct guess—of the large cities and towns a pretty near estimate could be made, but that is of little use. The territory is said to be thinly peopled, and perhaps correctly so, owing to agricultural pursuits being confined to the localities which have the means of irrigation by rivers and canals. If wells were resorted to more generally, as is the case in Upper India, there is no doubt that numbers would be attracted to the province, as the land is very productive when properly attended to. The Scindians are, generally speaking, strong and hardy, many of them tall, with dark complexions. Those who are in comfortable circumstances, and not exposed, are however very fair. This is particularly the case with the women, who are secluded, and may correctly be termed of the fair caste. Very few Rajpoots Brahmans or ladies to be seen. Meat and wine do not come amiss to them. They are a very industrious set, and the most wealthy as the natural consequence. All are addicted to smoking to an alarming extent. A hookah peculiar to this part of India, is in use. The hookah bottom is of earthenware—very large to which a nearly horizontal snake is attached, so adjusted as to enable the smoker to sit at his ease on the floor, and continue his work, smoking at the same time. The snakes are often four or five feet in length. They smoke tobacco, as also ganjah (*Cannabis Indica*) to a great extent, supplied from Candahar Cabul, and the countries between the Indus and Herat. They use and smoke it the same way as the Egyptians. The dress of the people is unlike any other part of India. Their caps are extremely fanciful and pretty but give no shade to the face—they are made of quilted cloth, and of all the colours of the rainbow, some are worked in with gold and silver thread. The turbans worn by the Hindoos are of an immense magnitude, and it puzzles the beholder to know how they can be constructed, these turbans are the repositories of any valuable documents they may have, as well as jewels, or other light property. Nearly all whether Mussulmans or Hindoos, wear beards, which they often dye of a red colour. The women are also fond of dyeing the hair. The better class of Scindians wear a long shirt, of fine or coarse cloth, agreeably to the circumstances of the wearer, which reaches nearly to the ankles and is unconfined by any waistband—also loose drawers underneath. All the poor and working classes have an enormous quantity of superfluous clothes on, generally dyed blue, and they wear them round the waist. Indeed so enveloped are they that had they been inhabitants of a cold region, they could not have required more clothing than is now resorted to. The better class of females follow the practice of the Egyptian women, and when walking abroad are covered with an immense piece of cloth in the shape of an extinguisher, which is gathered together on the crown of the head, reaching to the soles of the feet having small eyelet-holes perforated in front, before the eyes to enable them to see their way, these envelopes are of white cloth and the wearers look like so many walking ghosts. The population suffers greatly occasionally from epidemic disorders, as is the case in all parts of India and therefore must be calculated upon accordingly.

*Revenue Collections*—“The system in vogue during the native administration is still carried on with very trifling modifications, which, under European management, is considered objectionable. The land revenue, I have been informed is with some very trifling exception taken in grain and the average share appropriated to government varies a third and a fourth. The other two portions are immediately and widely spread by the cultivators to satisfy the present wants of themselves and the surrounding population while the government share must be stored until the markets get exhausted, or else dis-

posed of at a very low rate. It also places it in the power of the government to create a monopoly, if such should be wished and which ought not to exist. From casual inquiries I have made, I am led to believe a cash revenue settlement could not be introduced without much trouble, and then at a very low figure, as a preliminary measure. It would also require the aid of well experienced settlement officers to carry out such a plan successfully. The system of taking revenue in kind was not so objectionable during the time the Ameers had the rule, as they paid their troops, public and domestic servants, &c, in grain—thereby finding a vent for the produce, which under the European system of management cannot be resorted to. The farming practice prevails for minor revenue collections in Upper and Lower Scinde, as in the time of the native reigns. Indeed it will be out of the question altering the old system without the aid of experienced revenue officers and even to them it will be a difficult task to persuade the rural population to swerve from old and established customs. A very experienced and well informed Scindian whom I met at Jussulmere, gave me the minutæ of the former and present management of revenue matters, but with actual experience, it would not be correct to give publicity to what he said. The measures and weights by which the revenue is collected have exclusive application to Scinde.

*Climate*—“So much prejudice exists in disfavour of the climate of Scinde, that any individual attempting to speak in its favour has a fair chance of not being credited. In my progress through the country, I have seen as many sturdy, old gray-headed men in the villages, as are to be met with in any portion of the Company's dominions. The great loss of European life amongst the military, must be attributed, in most cases, to provisions, or existing exposure in a newly ceded province. When the troops can command as many comforts and conveniences in Scinde as are to be found in Gangetic India little doubt can exist that it is equally free from disease. I hear that very few casualties have occurred among the European officers, civil and military the last year or two, and such will generally be the case among those who are comfortably sheltered, are temperate and devote themselves to mental and bodily exercise in moderation. Some of the staff and others, have resided in the province from three to seven years, and enjoy as good health as they could have done had they been in any favoured station attached to the Bombay Presidency. In a good house well secured by glazed doors and windows, and with a single tatter, the temperature during May and June will not exceed 83 deg, and without the latter, 86 deg or 88 deg. Good houses are however rare. A few are to be found at Kurrachee one at Hyderabad, and one or two at Sukkur. When commodious and well constructed mansions are as numerous in Scinde as they are in the other provinces of India, we shall hear no more of the hue and cry that it has been the fashion to make without reference to the causes, since the province became a component part of the East India Company's Possessions. During all the hot season, that is from the 15th of April to the end of November, such an occurrence as a hot night is seldom known, on the contrary, the nights are cold and I have heard of officers living in well-situated localities, find it necessary to use more covering at night than they would think it expedient using in England during the summer months. From October to the middle of April the weather is charmingly pleasant, and from the middle of November to the same period in February, the cold is interse morning and evening for India. The extreme heat complained of at Sukkur, can be accounted for by the position of the cantonments. All the barracks and officers houses are situated on barren calcareous formations—they can hardly be designated hills these rocks become so hot at mid day that none can walk on them barefooted with impunity. The heat is retained, more or less the whole night, and the place never becomes cool, except for the few months of cold weather. It is not just to judge of the old province from a residence at this awful station. A far more pleasant and agreeable locality could have been selected for a military station a few miles lower down the stream where the banks of the river are very high and firm and the scenery romantically pretty with the advantage of being 10 deg, or 15 deg cooler. The dust that prevails in Scinde is perhaps, more distressing than any degree of heat. But, by artificial contrivances, and some expense, the European resident is not



inconvenienced. Dust equally prevails in many of the military stations in the North-western Provinces, particularly those on the banks of the Sutledge, but houses with every convenience and comfort have been constructed at any expense, at those stations, to insure comfort from the external enemies, heat and dust. When such is the case in the Scindian province I doubt not we shall hear nothing more of the evils now complained of.

*Rivers*—“The Indus is the only navigable river all the year round from its left bank many small streams, called rivers branch off. These are only of use for irrigation. The Indus after the junction of the Sutledge, or rather the Charra River, with it, has no tributaries in its whole course to the sea. This is one reason why it is so far inferior to its sister stream, the Ganges. Though these two grand rivers take an opposite course to the sea from their source—the Ganges running from west to east and the Indus from north to south (leaving out the varying points of the compass), still the prevailing winds during the inundation of both rivers are adapted for each for the navigation against the stream the prevailing wind in Scinde during that period being south and south-west, and, on the Ganges, east and south east and we may be led truly to exclaim with the immortal poet ‘These are thy wondrous works, Parent of Good’.

*Scenery*—“The traveller who only penetrates a few miles on either side of the Indus, would pronounce Scinde a sterile country, and devoid of all picturesque beauties. Such however is not the case, and though not very rich in forest scenery, still, very handsome groves of trees are to be met with. Some of the views on the banks of the small winding tributary rivers—more particularly at the season of the inundation—are charming to the eye the foliage of the trees along the banks being rich in the extreme. In the neighbourhood of Hydrabad for many miles along the winding Fullaica, this is the case. The river view of Sukkur Bukkur, and Roree with the Rocky Island, is also exceedingly imposing as you approach from the south. It would form a rich painting, if transferred to canvass at the time of the rise of the river. At Khyrpore, the residence of Meer-Ali Moorad, are numerous beautiful gardens, which would be an ornament in any part of the continent. The babool tree (*Mimoso Arabica*, et *Farnesiana*) attains great perfection in Scinde such as is not to be met with in any other part of India. Occasionally the banyan tree (*Ficus Indica*) is to be met with but by no means common. Some inferior specimens of the peepul (*Ficus religiosa*) are to be met with, and are valued according to their scarceness by the Hindoos. The elegant neem tree (*Nelia Azadraughta*) makes up, however, by its richness for the poverty of those just enumerated, and vies with the babool in giving effect to the sylvan views. Many other shrubs too numerous to enumerate, are scattered about, and, in orchards the mango tree thrives remarkably well, and the fruit is as well flavoured as any to be found in this country. The view of the fort and citadel of Hydrabad is also very imposing from a distance—being well elevated on a limestone rock.

*General Observations*—“Numerous articles of export, such as indigo, saltpetre, buffaloes hides, and horns, goat skin, &c. are procurable in large quantities and remunerative prices, between Hydrabad and Mooltan, principally near the latter place, it is to be owned but then at such prices and at such an advantageous weight, that the expense of river carriage will fall very light. The indigo is very fine and the saltpetre very pure. The buffaloes hides are also large, and of the best description. An agency from any influential house in Bombay would find a branch agency in Scinde highly advantageous. I am not well acquainted with the customs duties leviable on export transit goods of this description, but I feel sure the governor would afford every facility in encouraging trade in the province. Funds to a considerable amount, would be available monthly, for good bills on Bombay at a slight premium.

With the exception of the direct road from the city of Hydrabad to Roree, there is nothing worthy of the name in Scinde. Wheeled carriages are unknown, indeed, the face of the country is so cut up by canals and water courses, that no wheeled conveyances could be used. Camels, bullocks, asses, &c. are the only means in use as land carriage. The former are poor weak creatures compared to those in use in the Punjaub and provinces. Mules of an excellent breed, are readily to be had, but at rather high prices. The bazars of the principal towns are generally well stocked, but the prices of all articles

exorbitantly dear, and as nericks are not countenanced, a few wealthy men create monopolies, and keep up prices of every description of goods. At Kurrachee, Hyderabad, Sukkur, and Shikarpore, are well supplied Paisee shops, where almost all descriptions of European goods are to be had and it is a wonder these traders do not look to the advantages they could derive by exporting inland produce to Bombay, instead of making remittances. The only reason that can be assigned is that it is not their profession. At the principal station of Kurrachee it was highly pleasing to hear the eulogiums passed by the native population on the excellent Sir Charles, who, it appears, by their account, lends an attentive ear to every complaint, and permits the poorest persons to approach his residence with any petitions they may have, and that at any hour.

"In the way of natural curiosities, the botanist could readily fill an herbal with choice and nondescript specimens, and the mineralogist and geologist be equally successful. For four months in the year these researches could be followed. Fossil specimens are abundant, of a description to enchant a Cuvier.

"I have almost omitted to say that salt is an untaxed article in Scinde, and to be purchased for eight orten annas per maund. This is a great blessing to the poor. —Notes of a Traveller who has sojourned in the country.

The above extracts, dated Mofussil, appear to be the best sketch which we have yet read of this country.

#### ASSAM—ARACAN—AND TENASSERIM

ASSAM—This inland and well-watered territory is, as yet, little known. Even its boundaries seem to us to be but imperfectly determined. It was divided into Upper, Central, and Lower Assam, inclosing an estimated area of from 18,000 to 20,000 square miles, and a population of from 500,000 to 600,000.

It is well known that the country, generally low, is very fertile, with districts of undulating hills. It is watered by the Bahrampootra and numerous streams, which, during the flood season, inundates all the low grounds. Assam owes its celebrity, likely, to the establishment of the Assam Tea Company, who have succeeded in cultivating several tea plantations, whether profitably or otherwise we have no means of knowing. The following extracts are from a sketch of the country recently written by an officer, who was sent to the district by the Indian government.

He describes the jungle fever as fearful to Europeans, and the ascent in the river craft, he says, is extremely tedious. He was two months ascending in a budgerow, which he exchanged for a canoe forty eight feet long, being a hollowed single tree. Of the latter part of the voyage he says,—

"The solitariness of my position, only enlivened by the song of eighteen merry paddlers pulling from morning to night, at the rate of forty or fifty miles a day, against a rapid stream was perhaps the worst part of the story. The scenery, if not positively devoid of picturesque beauty, wearied me from its monotonous character. Sand-banks, woods, and hills, unvaried by the residence of man or the slightest token of civilisation, constituted its leading features. Occasionally a boat might be encountered, but excepting from the rude salutation of the wild crew, the screaming of wild fowl, and the loud crash of falling banks, prostrating lofty trees into the bosom of the river, not a sound was heard to relieve the pervading solitude.

He reached Burpetah, his station for eight months, he says—

‘The population of Burpetah is estimated at about three thousand souls their huts are built without any regularity on high artificial mounds of earth, in the centre or gardens of betel nut and plantain trees, clumps of bamboos, cane and grass jungle, mango, and other large trees, under the shade of which, impervious to the sun, roads or channels intersect the town in every direction. In the rainy season these channels owing to the inundation of the country, are filled with water many feet in depth. Every house, consequently is provided with one or more canoes in which the inhabitants visit each other & isolated positions and the cattle are brought upon the little eminences at night and housed oftentimes under the same roof with the family, if not in the same room. Daily may the cattle be seen swimming across these street streams in search of a dry spot of land on which to graze. In this manner for four months of each year—June, July, August and September—are the people surrounded by floods but, as if endowed with amphibious natures they seem equally happy in or out of the water, and pass their time on board their boats in trading with other villages throughout Assam.

Burpetah is subject to other visitations besides water —

‘In January, February, March, and April the whole country adjoining Burpetah presents a spectacle seldom seen elsewhere the natives set fire to the jungle to clear the land for cultivation and to open the thoroughfares between the different villages, and the awful roar and rapidity with which the flames spread cannot be conceived. A space of many miles of grass jungle twenty feet high is cleared in a few hours, and the black ashes scattered over the face of the earth after such recent verdure, form one of the most gloomy and desolate landscapes that can well be imagined. But so rapid is vegetation in Assam that a few days suffice to alter the scene the jungle speedily shoots up with greater strength than ever, and at the approach of the heavy rains in June it again attains a height of many feet. On more occasions than one though mounted on an elephant, I have had the greatest difficulty to out-flank a fierce roaring fire, rapidly moving with the wind in a long line over the country. The elephant, of all animals is the most fearful of fire and on hearing the approach of the element he instantly takes to flight, but the rapidity with which the flames spread renders escape most hazardous, especially if the wind is high and right aft. The best plan to adopt if a fire breaks out to windward is to circle round the nearest flank with all expedition, gaining the space burnt by the advancing flames. On foot escape would be almost impossible, the jungle being impenetrable except by a narrow footpath, and this being frequently overgrown with grass if no open spot be near at hand, inevitable destruction must be the fate of any unfortunate traveller to leeward of the fire.

Hunting buffaloes and elephants, deer shooting and hog-shooting are the principal sports. For the short period of six months, twenty cases of men killed by wild elephants and buffaloes are recorded. Great improvement might be expected from the extension of tea plantations, but this is resisted by several of the tribes. This appears to have caused the insurrection of the Singphoos, in 1843 —

‘The real origin of the insurrection was the occupation of the Koojoo tea garden and other tea tracts. The constant detention of the Docaneah slaves and dependents, who are the people chiefly employed in cultivation under the Singphoos, besides the advance of civilization consequent on the establishment of a considerable village at Jey-pore with European residents was the source of much heart burning. The occupation of Mutuck formerly under native management must also have proved distasteful to a savage people possessing a wild country and delighting in extensive hunting grounds.

‘The tea plant is indigenous in Mutuck and the Assam Tea Company have cultivated many gardens, greatly to the benefit of Upper Assam and if the company steadily prosecute the speculation thousands of labourers will, in the course of time, resort thither for employment, and become permanent settlers. Tea, it is believed, may

be grown in sufficient quantity to supply the English market, and afford a handsome remuneration to the speculators. An inconsiderate expenditure of capital placed the Assam Tea Company in great jeopardy, and at one time it was feared the scheme would be abandoned. The number of managers and assistants appointed by the Assam Company to carry on their affairs, and superintend their tea gardens on large salaries, was quite unnecessary. One or two experienced European superintendents to direct the native establishment would have answered every purpose. A vast number of Coolies (or labourers) were induced to proceed to Upper Assam, on high wages, to cultivate the gardens, but bad arrangements having been made to supply them with proper wholesome food, many were seized with sickness. On their arrival at the tea plantations, in the midst of high and dense tea jungle, numbers absconded, and others met an untimely end. The rice served out to the Coolies from the Assam Tea Company's store rooms was so bad as not to be fit to be given to elephants much less to human beings. The loss of these labourers, who had been conveyed to Upper Assam at a great expense, deprived the company of the means of cultivating so great an extent of country as would otherwise have been ensured, for the scanty population of Upper Assam offered no means of replacing the deficiency of hands. Another importation of labourers seems desirable, to facilitate and accomplish an undertaking formed under most auspicious circumstances. Nor was the improvidence of the company in respect to labourers the only instance of their mismanagement. Although the company must have known that they had no real use or necessity for a steamer, a huge vessel was nevertheless purchased, and frequently sent up and down the Bahrampootra river from Calcutta, carrying little else than a few thousand rupees for the payment of their establishment in Upper Assam, which might have been transmitted through native bankers, and have saved the company a most lavish and unprofitable expenditure of capital.

Gold-washing has become so unprofitable in Assam, that it has been almost wholly abandoned. There are, however, products which a people less indolent and less addicted to smoking than the Assamese might turn to profitable account —

"In many parts of the province, coal of a good quality is found, and indeed the soil of Assam generally may be considered extremely rich. It abounds in valuable products, such as rice, sugar-cane, moogah silk, pepper, mustard-seed, and cotton. But the bounty of nature is marred by the indolence and apathy of man. The cultivator seldom looks beyond his immediate wants, and makes no attempt to improve his condition. In fact, in agricultural, commercial, and manufacturing industry this country may be considered at least a century behind Bengal, and there seems little prospect of improvement, excepting by the introduction of a more active and industrious people, who might stimulate the natives to increased exertions."

The marriage customs of the Assamese have many points of similarity to those of the patriarchs of Israel —

"Jacob served Laban as a servant or bondsman many years to obtain in marriage Leah and Rachel, who were sisters, and he was not allowed to marry the younger before the elder. So in Assam a man may marry two sisters, but he must not marry the elder before the younger. It is not uncommon, when a man is poverty-stricken, to engage to live and work for several years for the father of the girl he wishes to marry. He is then called a Chapunea, a kind of bondsman, and is entitled to receive what kupper, food, and clothing but no wages, and at the expiration of the period of servitude, if the girl does not dislike him, the marriage takes place. The man is looked on in the family as a *khanu damad* (or son in law), and is treated kindly. If the girl's father be very wealthy, and he has no sons, he will sometimes select, from some equally respectable family, a husband for his daughter, and bring him up in his own house. The youth so selected is likewise called a Chapunea, and inherits the whole of his father-in-law's property. If a woman's husband dies, though she may be only eighteen or twenty years of age, she can never marry again."

This officer says, of the country of the Garrows,

"An immense quantity of cotton is grown on their hills. This until 1843, was subject to a tax paid by the purchaser to government, at the market where the Garrows bring

down their cotton for sale but, owing to the mal-practices of the native collectors appointed to receive the customs, little profit accrued to government after the expenses of the establishment had been paid. For the encouragement of trade and a freer intercourse with our people the customs have lately been entirely abolished, but it is supposed that a plan for the assessment of the whole of the Garrow cultivation will if possible, shortly be adopted. The climate of the Garrow hills however, offers a serious obstacle to this measure for, according to our present information, no European constitution could endure a lengthened residence amongst them and without the constant presence of a British officer armed with authority to arrange their affairs, neither the advancement of civilisation nor the realisation of a revenue sufficient to defray the expense of retaining and settling the country could be accomplished.

The Garrows are a wild uncivilised race. Disciplined troops would be necessary to protect the cultivators of cotton or other crops from their swords, spears, and poisoned arrows. Their neighbours, the Cosseahs, are an athletic race—who, if disciplined, would be more than a match for the Sepoys. Assam, if properly opened, and if steam navigation were put into regular operation, and if the people of the country were thoroughly subjected to order, would become a most productive and commercial region.

## ARACAN

THIS fertile but unhealthy district is included within the presidency, and extends along the east side of the Bay of Bengal, from Cape Nigras 15 deg 53 min to 21 deg 30 min, and was wrested from the Burmese in 1824, and forms a narrow district, with many good harbours and several small inlets. Its length is about 500 miles, its breadth from forty to eighty five miles. The population was formerly estimated at more than 2,500,000 of inhabitants, at present at not probably 250,000. It is generally an undulated region, but with unhealthy marshes along many parts of the inlets and shores. The rivers are numerous, and mostly navigable for small craft, vessels of about 250 tons enter the Aracan. There are several islands and rocks off the coast. Extensive forests cover a great part of the country. This territory is capable of yielding every tropical product, but on coming into British possession, it was in the most savage state, and the people, under the King of Burmah, in the most degraded condition. Under the Indian government, much in the way of improvement has been effected, but the country, generally, is susceptible of infinitely greater cultivation, and of profitable exploration. Salt is prepared along the salt creeks. Teak and other valuable timber trees are abundant, and, where cultivated, rice, and every other tropical product grow in profusion. Many fruits, as the orange, mango, plantain, and other kinds, grow in natural luxuriance. Elephants abound. Cattle also thrive, and the fowls of the air and the fishes of the sea are said to be plentiful. Rice, paddy, salt, timber, buffalo horns and hides, elephants' teeth, oils, and some sugar, tobacco, silk, cotton, wax, &c, appear among the exports, which latter are included in the tabular accounts of the exports from Bengal. Akyab is the chief port, and Aracan, the capital, is the next in import

ance for trade This country will no doubt become a valuable productive, and consequently commercial district In fact, the whole of the regions, extending from Chittagong to the extremity of Malabar are, with even greater natural resources and products, in comparison to Asia, what all Italy may be considered with respect to Europe—the Asiatic regions having the superiority of great rivers and numerous safe and capacious harbours

#### THE PROVINCES OF TENASSERIM

THE province, or provinces, of Tenasserim were acquired by conquest from the Burmese in 1825 6 Tenasserim is divided from Siam by a high mountain range, and extends west of those mountains along the east coast of the Bay of Bengal, from between 11 deg and 19 deg north lat. The savage regions and people of Burmah separate Tenasserim from the British territory of Aracan, and Lower Siam, which stretches south to the Malay peninsula. Tenasserim is far more healthy than Aracan The rainy and dry seasons nearly divide the year into equal parts The dry has its cold and hot periods Various crops are cultivated, among others, tobacco very generally, sugar canes, cotton, hemp, indigo, various vegetables, long pepper, cardamons, catechu, and various fruits, nuts, &c, grow wild, valuable teak and other useful timber abound in the forests, salt is made along the coasts, minerals are also said to be plentiful, coal and iron have been discovered

The progressive development of the natural resources of Tenasserim has been of great commercial value since the occupation of the country by British authority The teak timber trade, and ship building, have been the prominent occupations

MOULMEIN, the capital, has thriven since its foundation in 1825, by Sir Archibald Campbell, more rapidly than any other European settlement in the East, unless Singapore be excepted The governor resides at Moulmein, and subordinate authorities are established at Tavoy, Mergui, &c Moulmein is in the northern division of Tenasserim, called Martaban, and situated on the river Khan Luen The island of Balu forms a natural breakwater, which completely shelters the harbour The internal river navigation, and its port, with the rich internal country, renders Moulmein one of the best seats for a commercial emporium in the East These advantages account for its flourishing trade and for its prosperity Its direct trade with London commenced in 1837

#### STANDARD OF COINAGE WEIGHTS, AND MEASURES, FOR BRITISH INDIA

A considerable amount of business is transacted according to measures and weights recognised by local usage, which are noticed elsewhere according to the Presidencies in which they prevail but the following having been declared standard throughout the British territories in India are here inserted—See also Calcutta, Madras and Bombay

*Coinage*—The standard coin of British India is the Company's rupee, weighing 180 grains

troy or one tola and containing eleven-twelfths silver and one-twelfth alloy to which the other silver coins viz double half and quarter rupees, and two anna pieces, bear in all respect a due proportion. The value of the Company's rupee is nearly the same as that of the Madras Bombay, Ferukabad, and Sonat, and is equal to fifteen-sixteenths of the late sicca rupee.

The following are subdivisions of the Company's rupee —

3 pie = 1 pusa     }     4 pusa = 1 anna.     }     10 annas = 1 rupee.

*Weights*—The unit of the British Indian ponderary system is called the tola. It weighs 180 grains English troy weight. From it upwards are deriv'd the heavy weights viz chittak, seer and mun (or maund) and by its subdivision the small or jeweller's weights called masha, ruttels and dhans.

4 Dhan = 1 ruttel = 1 875 gr troy     } 5 tollah = 1 chittak = 1 oz 17 dwt 12 gr tr  
 8 ruttels = 1 masha = 15     } 16 chittaks = 1 seer = 2 lbs 6 oz troy  
 12 masha = 1 tola = 7 dwt 12 gr     } 5 seer = 1 pussere  
 8 pussere = 1 mun = 100 lb troy or 82 2-lb avoirdupois

The mun is sometimes called the British India sometimes the new bazar mun or maund. For the conversion of English troy weights into those of India the following scale will suffice —

lb Troy	Ounce	Penny weight	Grain	Tolas and Decimals
1	12	240	5760	78.000
	1	20	450	2.6665 &c
		1	24	0.1333 &c
			1	0.005 &c.

The agreement of the mun weight with the 100 lb troy affords a ready means of ascertaining its relative value in the standards of other countries employed in weighing the precious metals, as tables of the latter are generally expressed in weights troy.

Troy weight being used only for bullion, some rules are necessary for the conversion of Indian into avoirdupois weight, the latter being used exclusively for commercial transactions.

As 3 seers Indian weight are equal to 72 lb avoirdupois the following scale may be adopted for mutual conversion viz to convert Indian into avoirdupois weight multiply the weight in seer by 72 and divide by 36 and the result will be the weight in lb avoirdupois. Or multiply the weight in muns by 36 and divide by 49 and the result will be the weight in cwt avoirdupois.

To convert avoirdupois into Indian weight multiply the weight in lbs by 36 and divide by 72 and the result will be the weight in seers. Or multiply the weight in cwt by 49 and divide by 36 and the result will be the weight in muns or maunds.

To facilitate calculations it may further be observed that 7 muns are equal to 576 lbs 49 muns to 36 cwt and 254 muns to 180 cwt. or 9 tons. or one ton avoirdupois is equal to about 27 1/4 muns.

## PUBLIC LOANS IN INDIA

*India Stock*—Capital 6 000 000l. bearing interest at 104 per cent, which rate is to be maintained during continuance of the charter.

*India Bonds* bearing interest 2 1/2 per cent payable 31st of March and 30th of September.

*New Five per Cent Transfer Convertible Loan*—This loan bears interest at 5 per cent per annum payable half yearly to residents in India in cash and in Europe in bills at twelve months date at the rate of 25 1/2 per sicca rupee. This loan cannot be paid off before the 22nd of April 1854 and not till after fifteen months previous notice. The principal receivable at the option of the holder either in cash at the general treasury at Calcutta or in bills on London at twelve months date at 1/2 per sicca rupee the Court of Directors having the option of postponing payment of the same for one two or three years paying interest at 5 per cent per annum.

Transfers of this loan may be registered at the India House.

*British Loan* Dec 1 31st Dec 1 31 10th Aug 1833 and 1st January 1836—These loans bear interest at 5 per cent, payable half yearly.

## CEYLON

THE island of *Ceylon* is separated from the Tinnevely Coast of India by the *Gulf of Manar*, the gulf is bounded to the north-east by a narrow ridge of sand and rocks, mostly dry it is called *Adam's Bridge*, and it extends nearly east and west nine or ten leagues, the east end joining to the *Island Manar*, which is close to *Ceylon*, in about latitude 9 deg north, and the west end to the *Island of Ramisseram*, situated close to the continent. There is a narrow passage for small country trading boats, drawing about three feet water, between the island and the main, but this bar or reef excludes all other navigation.

*Ceylon* extends from north to south between 5 deg 56 min north, to 9 deg 50 min north latitude. From *Dondra Head* to *Point Pedro*, its length is about 270 miles, and in its greatest breadth about 145.

The Portuguese landed here in 1505, twelve years after which they began to settle factories. They were previously opposed by the Arabs, who apprehended the loss of the trade in *cinnamon*, with which the latter had until then supplied all Europe. The Portuguese were kindly received, and formed a treaty with the King of Candy, who agreed to pay annually 250,000 lbs of *cinnamon*, on condition that the fleets of Portugal should defend his coasts from invasion. The Portuguese then obtained permission to build a fort at *Columbo*. In 1623 the King of Candy made war against them, but being defeated, he was obliged to accept of a peace, on condition of paying the Portuguese a tribute of two elephants annually.

The Dutch landed in *Ceylon* in 1602, and in 1638, in consequence of the alleged cruelties and insolence of the Portuguese, the King of Candy sent an embassy to *Batavia*, to request the assistance of the Dutch against them, and the Dutch sent an army and fleet for that service, "and," says *Milburne*, "by open wars and secret contrivances, they in the course of about fifty years expelled the Portuguese from the island, of which they retained possession till 1796, when the ports belonging to them were taken by the English forces, who continued masters of the sea coasts of the island. It was fully conceded to the British in 1814—15 Wild animals of all kinds, from the elephant downwards, abound."

The principal ports and trading places have been *Aripo*, *Calpenteen*, *Negombo*, *Columbo*, *Matura*, *Point de Galle*, *Batticaloe*, *Trincomalee*, and *Jaffnapatam*. Of these, *Columbo*, *Point de Galle*, and *Trincomalee* were the only ones frequented by large ships. But recent changes have been made. The following sketch of *Ceylon*, drawn by Mr *Cushing*, American minister to China, appears to us the most correct, as it is the most recent —

"This island, the *Taprobane* of the Greeks, the *Serendib* of the Arabs, the *Lanca*



of the Brahmins of India, the Ceylon of Europeans, has a very good name of its own, to wit, Singhala.

"It is inhabited chiefly by a race of men similar in their physical characteristics to the natives of the south of India, but for the most part of the Buddhist, and not of the Brahminical species of the general religion of India; and after having been in part subdued, and for a time occupied, first by the Portuguese and then by the Dutch, it is now wholly conquered and possessed by the British, as a colony in immediate dependence on the metropolitan government.

"Although situated nearer to the equator than is the Indian peninsula, the meteorological position of Ceylon is a more advantageous one, so that its climate is milder and more equable, its surface is better watered, to which also the nature of its geological formation contributes; and in consequence of all this, and of its peculiar political condition, it affords a very favourable specimen of the most fertile and productive of the intertropical regions of Asia.

"Ceylon is egg-shaped, and its coast is very little broken by inlets or other irregularities of outline.

"It presents to the eye the general aspect of a region of irregularly-disposed mountain ranges, several of the peaks being of great height, and the whole surrounded by a wide belt of more champaign country on the sea-coast, intersected by many rivers of extremely circuitous course, and covered with vegetation, including a great variety of fruit and forest trees and shrubs, affording for its principal agricultural productions the cocoa, banana, and areca palms (with arrack, oil, and coir cordage, made from the cocoa-tree), cinnamon, coffee, tobacco, sugar, both of the cane and the cocoa-tree, and rice, which is the principal food of the inhabitants.

"In addition to these agricultural productions, its land or its sea affords to commerce several varieties of building, cabinet, and dye woods, buck-horns, gems, chank shells and pearls.

"It abounds in elephants; but these are of little use in commerce, as they generally afford no ivory, and have ceased to be much in demand for war and labour, and they are slaughtered in great numbers as wild game and to deliver the cultivators from the injury they do to the crops. There is an English officer now in Ceylon who, it is well known there, has killed with his own hand nearly a thousand elephants, simply as objects of chase.

"Ceylon consists, with reservation of parts of the sea-coast and of some few exceptional substances in the interior, wholly of primitive rock, as greenstone, granite, syenite, and especially gneiss; these rocks, in every degree of combination, forming the body of the island, and the soil consisting of its disintegrated or decomposed ingredients, in which felspar and quartz greatly predominate, enriched in some parts, though very slightly, by vegetable accretions, and by natural or artificial irrigation.

"Among the mineral substances exceptional to the general substance of the interior of the island, are nitre caves, plumbago, manganese, and iron ores, and small ledges of dolomite. Gold and quicksilver are spoken of by some authors, but Davy and other careful inquirers positively aver that no such things are to be found in Ceylon.

"The mountains and hills of Ceylon, according to what is usual elsewhere, in the case of rocks of the same family, generally have rounded summits and sides, but with deep valleys and ravines in which the rivers flow. It is a singularity of their structure here, that, with scarcely a marked exception, all the valleys have outlets, and it is very rare to see in the interior a lake or a pond. All the valley bottoms and descending gorges, as well as the levels, are planted with rice; the soil, where the nature of the ground requires it, being trained into terraces one above the other, fronted with small embankments, which retain the water, and afford the means of crossing the overflowed paddy fields.

"In certain parts of the island the earth is capable of being cut up into cubical lumps of a substance called by the natives *esbook*, which is much used in building walls as a substitute for brick. It is a highly felspathic granite rock, in a state of imperfect decomposition. And the great quantity of felspar occurring in parts of the island,

gives to the soil of those tracts a hardish clayey structure, which is very *distinguishable* in the smooth and firm substance of the roadsides in the interior, wherever the disposition of the ground has given occasion for deep cuts

"Calcareous and sand rocks are found in some tracts of the sea-coast, but they are obviously superficial, foreign to the general structure of the island, and formed, according to the best opinions on the subject, by maritime causes, altogether confined to the relation between the coast and the sea, and local even there. Of this description seems to be the reef or isthmus of sand, sand-rock and coral, which almost unites Ceylon to the mainland of India. It is not well settled whether this reef is now in the course of growth or decrease, or whether it has alternate periods of both. Tradition among the people of India assumes that in some former condition of this reef, and of the small islands of *Manar* and *Rameswaram*, by means of it Ceylon once formed part of the Indian peninsula, and the relative configuration of the two coasts seems to support this tradition.

"Such in general are the formation and the most important productions of Ceylon

"Simple is the structure of this island is, the gravest errors on this subject appear in works of well deserved reputation and authority

"Hamilton ('*Eastern Gazetteer*,' *sub voce*) gives a more exact idea of the soil of Ceylon, describing it as 'derived from the decomposition of gneiss, granite, or clay iron-stone, the principal ingredient of the three being quartz, in the form of sand or gravel, and decomposed felspar in the state of clay, combined in different proportions with the oxide of iron.' But Hamilton proceeds to say, 'It seems extraordinary that, in an island the foundations of which are calcareous, there should be so little calcareous matter and so large a proportion of silicious matter in the soil.' When Hamilton saw so plainly that the assumed premises led necessarily to a false conclusion, it is very strange that he did not reject, or at least question, his premises. The assumption that the foundations of the island are calcareous is a gross error, which keeps possession of its place in the books, it is inconceivable why, in the face of the most obvious and circumstantial facts

"Leaving these general topics, it may be acceptable to dwell more at length on some particular ones which are quite special to Ceylon—namely, the cinnamon culture, the cocoa culture, the chank and pearl fishery, the building cabinet, and dye woods, and precious stones

"First, as to cinnamon culture. This production in its perfect state is almost a monopoly of the island of Ceylon and its growth is confined to a very narrow tract of land on the south-west side of the island, chiefly in the neighbourhood of Colombo. This does not seem to be the result of political arrangement merely, but to arise from some inappreciable virtue in the combination of climate, soil and water and their relation to each other, in this island of Ceylon, and in this part of it. Some of these peculiarities it is easy to indicate, without its being so easy to understand why the particular consequence should follow

"The tract of country in which alone the cinnamon grows to perfection, is situated on the sea-coast exposed to the air of the ocean. It is in a climate of equable temperature, which is at once hot and moist—hot from its tropical position and moist from the frequency and plentifulness of rains. The general level of the country is low in the midst of fresh-water lakes, divided from the sea by a narrow riband of land. And the water in the soil of the cinnamon gardens is of extraordinary purity so as to be for that reason much in request in the neighbouring city as a beverage. This exact combination of influences does not occur any where else in the island, at least not in the same degree

"But the crowning fact is the nature of the soil. It is in great part pure quartz sand, of a greyish to a pearly white lustre. A specimen of it being carefully dried by Dr Davy, was found to consist of 98.5 silicious and 0.5 vegetable matter, and 1 water. This circumstance impresses one very strongly on visiting the cinnamon gardens, it seems so strange to see a plain of pure quartz sand whitened in the sun, and yet covered over with a luxuriant growth of trees. In richer soils the aroma is said not to develop itself in the same concentrated form

"These plantations may well suggest a doubt as to the truth of the proposition so unqualifiedly laid down by some authors, that 'earth, destitute of organic matter, cannot sustain vegetation.' Certainly it is not organic matter which supports the cinnamon trees of Colombo. Another case to the same effect is that of Ayun Musa (the sources of Moses), in Arabia where I saw a spot of the most unmix'd and unpromising sand converted into a garden simply by diurnal irrigation.

"Perhaps the name of garden, which is commonly applied to the cinnamon plantations may lead to an erroneous conception of their nature. The cinnamon tree (*Laurus cinnamomum*), in its natural state, grows to the height of about twenty feet; but the bark, which is the only valuable part, is found to lose much of its highly aromatic quality in the mature tree. Accordingly, the trees are cut young, when the stems are only five or six feet long, and less than an inch thick at the largest end. The bark is then stripped or peeled off in long pieces, like willow bark, scraped carefully to remove its cuticle, and laid out to dry, in doing which it curls up in quills, as they are called, and it is then ready for the market, but improves by keeping for a while. The wood is good for nothing but fuel. Owing to this mode of cultivation, the cinnamon garden has very much the appearance of a forest of scrub oak, the rich bright green leaves of the small trees being strikingly in contrast with the white sand of the plain in which they grow.

"It is possible that the fragrance of the cinnamon groves may have been sensible to voyagers along the coast of Ceylon, but I do not believe that it often happens; no such fact was perceived on board the *Brandywine*. There is very little of this fragrance perceptible in the gardens themselves, and the idea of its extending out to sea is laughed at in Colombo.

"Secondly, the *cocoa tree*. In the moist, warm climate of Ceylon, many species of palm flourish, and they constitute a class of objects among the most beautiful in the landscapes of the island. They are of great and various uses in the arts of life and in commerce. The talipot, the areca, the banana, the royal cocoa, and the ordinary cocoa trees are the most conspicuous and interesting of the trees of this class. The cocoa tree, above all, is valuable not only for its esculent nut and its milk, but for the arrack, the sugar, the oil, the cordage, the thatching, and other secondary things which are derived from its trunk, its fruit, or its leaves, in consequence of which every cocoa tree is a precious property, and is the subject of a tax to the government.

"Thirdly, the *chank* and *pearl fisheries*. All the women of India are accustomed to wear a number of rings on their ancles and arms, especially on the latter. These are made sometimes of metal, sometimes of other materials, among which a large shell found in the waters of Ceylon, a species of *buccinum*, is very much in request, and of which a great amount is sent to other parts of British India.

"But the demand for pearls is still more universal in the East; and their adoption as an article of personal ornament in Christendom also, extends the demand to Europe. The pearl oyster beds lie in the Straits of Manaar, between Ceylon and the mainland of India.

"These two fisheries are held by the government and farmed out to individuals under very stringent regulations. The pearl oyster beds, especially, require repose for the renovation and growth of the oyster, without which the whole fishery would soon be exhausted by irregular divers, and thus destroyed. Accordingly, it is only at intervals of several years that pearl-fishing is permitted by the government.

"Fourthly, as to the *building, cabinet, and dye woods*. Of these a great diversity is found in Ceylon, among which the most noticeable are—

"1. Teak wood.—There is said to be but one species of teak-wood, and yet three woods are sold in Ceylon under this name, which closely resemble each other in colour, form, or fibre, and so forth, but differ very materially in closeness of grain and in weight. Whether they are distinct species of the *Tectona*, or varieties of the *Tectona grandis*, or trees of some other genus resembling teak-wood, are questions which I am unable to answer. Either of these things may be quite possible, for on comparing the forest trees of Europe and of the United States, we find many examples of trees scarcely distinguishable by any botanical difference, and yet producing woods of very dissimilar qualities. I have

already, in a previous letter, expressed the opinion, derived from competent judges, the best of the teak timber of India is, on the whole, inferior to the best of the oak timber of the United States. At the same time, however, this on comparison may prove, the teak wood, it is said, is tough and strong—that it requires little seasoning and little care of preservation in any climate is very durable, and being oily is good for iron fastenings, and is undoubtedly the best ship timber of India. One of the avenues of the Pavilion (*Government House in Kandy*) is of young teak trees, but it proves quite unfit to be used as an ornamental timber tree, owing to the extreme deciduousness of its large leaves, which perpetually encumber and defile the grounds.

"2 *Ebony (Diospyros ebenus)*—This wood is one of the staples of Ceylon. The tree is small, and it is only the inner part of the trunk which is valuable, the exterior or sappy layers of it being rejected. Its qualities of extreme hardness, susceptibility of polish, and black tint are well known. It is employed in Ceylon in the fabrication of carved cabinet work, such as chairs and bed posts, which are manufactured at Galle with much taste and beauty.

"3 *Calamander wood*—This wood is very hard, exhibiting when polished a variety of mixed colours, in which black and fine chocolate predominate, with some lines of a fawn colour. It is made into tables, in which it greatly resembles the black walnut of the United States.

"4 *Jack wood (Artocarpus integrifolia)*—This is a light wood, nearly of the colour and grain of the Havana cigar box wood, but approaching more to the tint of the palest varieties of Bay Mahogany.

"5 *Black wood (Dalbergia latifolia)*—This resembles ebony, but is not so dark or so compact and heavy as that.

"6 *Nepair wood*—This wood when polished, presents a surface of which the groundwork is a light brown, and in which are seen large and unequal fibres of black, which though longitudinal, yet remind one of the black lines in graphic granite.

"7 *Satin wood*—This cabinet wood is of a pale yellow, receives a fine polish and is one of the handsomest of the ornamental woods of Ceylon. This wood is abundant and cheap notwithstanding its uses for ornamental purposes. It is the material with which the beautiful bridge over the Maha welle ganga, at Peradenia, near Candy, is constructed.

"8 *Sandal wood (Santalum album)*—This wood has great celebrity throughout the East, being used from India to China, as a choice cabinet wood, and as a perfume in the funeral ceremonies of the Hindoos. It is of close grain, with a colour resembling that of the finest cedar, but a good deal lighter, and, like it, has a peculiar aromatic fragrance—both which qualities cause it to be employed very much for the wood work of fans, as a lining for glove cases, ladies' work boxes, and various other select ornamental manufactures of the same class. The colour of the true sandal wood is a very light red. There is another wood, however, of a redder tint, which has somewhat of the characteristic odour of the true sandal wood, and is used occasionally in cabinet work. Sandal wood constitutes a primary article of commerce on the coast of the Indian Archipelago.

"Some of the foregoing woods are very beautiful, but I do not think they equal in beauty the mahogany, maple, black walnut, curled birch, cherry tree, and others, which are commonly employed for cabinet work in America.

"9 *Sapan wood (Casalpinia sapan)*—This is a dye stuff. Its colour is yellowish like that of Brazil wood, but it does not yield of dye matter either so much in quantity or so good in quality.

"To which let me add, though it be not a forest tree, the dye root called Chay. This is a plant cultivated for the roots alone, which furnish the colouring matter for the durable red, for which the chintzes of India are famous. The wild plant in Ceylon is considered preferable to the cultivated, and the right to dig for it is farmed out. This dye-stuff has been tried in Europe, but not with very advantageous results.

The laws and commercial regulations and the tariff of Ceylon, with almost every form of administration, require a thorough reform.

Some good roads have been made in Ceylon—See the following condensed statements from official returns for 1847.

MISCELLANEOUS STATEMENTS CONDENSED FROM THE OFFICIAL GOVERNMENT  
REPORTS OF CEYLON

*Population*—The returns for 1843 exhibit a total of 1,121,631 and adding a moderate per centage for the natural increase since the census of 1843, the population may be safely taken at one million and a half.

So imperfect is the means of our information that it is said to be even impossible to ascertain the exact proportion of Europeans (exclusive of military), who are now settled in the island nor does any attempt appear at any time to have been made to arrive at an accurate result as to the industrial and vital statistics of the island, the relative numbers employed in each branch of manufactures and other occupations of the people, or the fluctuations occasioned in the several districts by the extension of cultivation and the arrival of European settlers.

Again, as regards the table exhibiting births, marriages and deaths, during the year 1846, its materials profess to be extracted from the current records of the native Thombo holders, or registrars but on examination, it was found to be a mere transcript of the return made for the year 1845 and, in fact, that in every year since 1843, the same figures have been made to serve as the totals in each are repeated without the variation of a unit.

*Religion*—In a despatch which accompanied the 'Blue Book' for 1845, well-merited testimony was borne to the zeal and ability displayed by the Bishop of Colombo, who had just then entered on the discharge of his momentous duties.

Of the reformed religion the most numerous sections amongst the Europeans and their descendants and the wealthier classes of the Cingalese, are those of the church of England the Wesleyan Methodists, the Baptists, and the Presbyterians both of the church of Scotland and the Dutch church. The latter having been the established form of worship during the period when Ceylon was a colony of Holland, the Dutch consistories have still been left in the possession of the churches and the most beneficial impulse has been given to the extension of Christianity amongst the natives by the liberality with which they have at all times given the use of their buildings to the clergy of the church of England. In the central province of the island a large proportion, perhaps the majority, of the Europeans employed in the superintendance of coffee cultivation are Scotchmen and Presbyterians and a most important point would be gained if the places of worship (of which there are lamentably few throughout these districts) to be hereafter erected by aid from the public treasury, could be opened on the principle which obtains in some of the West Indian and Australian colonies, of their joint use by the ministers both of the churches of England and Scotland.

As regards the progress of the church of England three new churches have been sufficiently advanced during the year 1846 to admit of their being opened for the solemnization of Divine worship and one Trinity Church, at Colombo, has lately been consecrated by the bishop. The new church at Kandy is far advanced towards completion, but owing to injudicious management on the part of the committee the cost for architectural display has been much greater than was justified by the demand for church accommodation throughout the colony. A small church has likewise been licensed at Kotmale another has been commenced at Nuwera Eliba, and others are proposed at Badulla, Rambodde and Pullim. Two in the district of Bulatgamme, at Ambagamuwa and Gallinagalla are to be served by Mr. Simons, the recently appointed colonial chaplain, on his arrival jointly with that in Kotmale. In the neighbourhood of Colombo it is probable that several new churches will be built by native Christians. Applications have been made to the bishop for clergymen from several very populous districts, and he hopes through the aid of the two Church Missionary Societies to be enabled to encourage so very unusual and commendable a proposal on the part of the native Cingalese. Within the same period, the ministrations of the church have been carried to many of the out stations. Pullaim, Calpentyne, and Chinlaw are served by one

missionary, Bellegamme, Tangalle, and Hambantotte have been newly attached to the mission at Matura, Batticaloa is visited from Trincomalee, Manaar and Mulletwoe from Jaffna. In the interior, Kornegalle, Matele, Cabragalla, Gampola, and Puselawa, have all been periodically visited by itinerant clergymen, the extent of country being so wide, and the residents so scattered, that in no other way, and by no other means, can they be reached.

"As regards the Church of Scotland, a minister has, within the last year, commenced his duties in Kandy, where ample funds have been raised for the building of a church, which will, I trust, be shortly completed. It is hoped that places of worship will be provided throughout those districts of the Central Province where the majority of the European residents on the coffee estates are Scotch Presbyterians, but are at present entirely deprived of the services of a minister of their own persuasion.

"As regards the advance of conversion amongst the native population, although there is an external appearance of progress there is reason to fear that but little way has been really made in the establishment of a firm conviction of the truths of Christianity. And it is a lamentable fact that multitudes who outwardly profess to be Christians and attend on the ordinances of religion, are equally attached to the superstitions of Buddhism, and resort to its temples and priests upon every emergency.\*

"At the same time the great body of the natives exhibit no antagonism to Christianity, such as prevails amongst the Hindoos and Mahomedans with them the chief difficulty to be contended with being their apathy and indifference to religion of all kinds.

*Education*—"*Estimating the population of this island at a million and a half the portion receiving education from approved sources does not exceed one-eighth of the whole.*

"In all the government schools, in which there are upward of 3000 pupils, and a few of the mission schools English is taught as well as the vernacular languages, and small though the number receiving this the most desirable form of education may be yet there is too good reason to apprehend that at present English education can scarcely be carried with advantage much beyond its present extent. The character of the natives is such, that it is only in localities where there is European superintendence that the duties of a teacher of a language of which the parents of the pupils are ignorant, can be performed with any degree of attention or success.

"Besides government and the missionary bodies, there are a great many village and temple schools conducted by Buddhist priests and others in which the pupils are taught to read and write the vernacular in such numbers that these attainments appear to be as generally possessed by the Cingalese as in the ordinary communities of Europe. The number, therefore, who are in a condition to profit by useful books in the native languages is very different from the small fraction of the population given above as receiving education. But it is a matter of deep regret that the books which form the curriculum in the priests and private schools are wholly of a legendary character, puerile and unprofitable to the last degree and in a language too, very different from the vernacular. It is also a melancholy fact that there are scarcely any good and useful books to be found in the Cingalese language. To the department of translation however, the school commission is now applying more sedulously than formerly, and a sum of 468*l* has been estimated for the service of the year in this department.

"In connexion with vernacular education, the school commission, under the presidency of the Bishop of Colombo, continues to give its services in the cause of education as formerly and it has been agreed that thirty new vernacular schools shall be established this year, if practicable, for which a sum of 1142*l* has been voted. This will be conducted by masters who during the last two years have been under training in the native normal seminary, an institution which is admirably conducted by the Rev. Mr. Kessen. Here forty young men and ten young women, all Cingalese, receive a

\* Roman Catholic chapels many of them large are far more numerous than Protestant places of worship in Ceylon.

suitable education, and adequate subsistence money, at a cost not exceeding 750*l.* per annum.

"At present about one-fifth of the entire sum devoted to educational purposes (*vis.* 12,600*l.*) is apportioned for education in the vernacular.

*Agriculture.*—"In Ceylon, agriculture in all its branches, must be regarded as an art almost unknown. Notwithstanding all its advantages in variety of soil, gradations of temperature, and adaptability of climate, the cultivation of rice may be said to be the only successful tillage of the natives. And yet with the favourable circumstances alluded to, and the expanse of surface to be applied, it is impossible to foresee the extent to which the productions of nearly every other country might be domesticated and extended throughout this island. In the highlands and mountain regions, and particularly in the wooded valleys and open plains which are found at an elevation of from 3000 to 7000 feet, there is an encouraging field for the introduction of most of the grains and vegetable productions of Europe, and from the limited experiments which have been made up to the present time, there is good reason for believing that more extended operations would be attended with very beneficial results to the colony.

"In this conviction, the government has had numerous applications for lands in the hills suitable for the rearing of stock and European crops, for which a ready market would be found in the coffee districts and the towns and villages of the central province; and the intimation of your lordship's readiness to permit the leasing of lands for these purposes is likely to give a rapid extension to such undertakings.

"Under the head of agriculture, however, the most important topic is that of the cultivation of

*Coffee.*—"The extent to which the production of this article has increased within the last ten years is very remarkable. The export to England was—

In 1835	.	.	.	.	.	1,870,148 lbs.
In 1845	.	.	.	.	.	16,657,289 lbs.
And in 1846	.	.	.	.	.	18,350,341 lbs.

"Coffee has at all times been produced in small quantities in Ceylon, off trees planted by the road-side, or round the dwelling-houses of the natives; but it was never systematically raised by them as an article of commerce, nor was its cultivation attempted on a great scale by Europeans till within the last few years.

"*Native Coffee* is still brought to market in small quantities, but during the last year its export has greatly diminished, owing to its indifferent quality and low price in the London market. This is ascribable to the inaptitude of the native character for conducting its cultivation with energy and success.

"A few Cingalese and native headmen in the employment of government have within the last few years, established small coffee plantations, in imitation of the English, but as the situation and soil were not chosen with skill or experience, they have not been eminently successful, a circumstance much to be regretted, as discouragements which would scarcely affect a more energetic race, are all but fatal to enterprise amongst the apathetic natives of this island.

"The quantity of land brought under coffee cultivation by European capitalists since 1834 will probably approach 100,000 acres; but lands intended to be so employed, and now more or less in process of preparation, have been purchased from government to the extent of 400,000 acres.

"In almost every particular the cultivation, even on this extended scale, has been essentially an experiment. The possibility of procuring labour, the means of transport, the quality of the crop, and its favour in the home market, were all points to be ascertained by experience; and in addition to these, the climate itself, the nature of the soil, the geniality of the temperature, the treatment of the plant and its probable duration, have all been matter of uncertainty and speculation; as no other producing country presented a direct analogy either in the character of these requisites or in the proportion of their combination.

"Soils in Ceylon which appeared favourable were attempted, but abandoned after proofs of unsuitability. Apparently luxuriant localities were cleared and planted, but

only led to a similar result, as forest land alone has hitherto been found to answer the purpose, the richest grass land in its immediate vicinity failing to produce a crop of coffee, and even forest land, where it lies over clay or any impermeable basis, has been proved unfavourable to the more delicate plant

Again, rich forests have been cut down in the lower ranges of hills and converted into plantations, but though the coffee tree grew luxuriantly and rapidly, it failed to yield fruit in proportion, and speedily ceased altogether to bear demonstrating the necessity of altitude and its accompaniments of moisture and temperature

“ Observing that native coffee grew best under the shade of other trees, and that in Java and elsewhere plantations are so formed, shade was at first resorted to in Ceylon on the larger plantations, but contrary to calculation and example, the result was unsatisfactory and the trees were removed, frequently to the destruction of the plants beneath them

“ A combination of rich soil, a lofty elevation a warm sun and regular rains have been now ascertained to be the main desiderata, but even when these are apparently combined, the estates on different aspects of the same mountain, though with equal soil, and to all appearance alike in climate and temperature, have been found to exhibit totally different results, those to the north east and south west, having the full advantage of the rains in the two monsoons, whilst those of the opposite extremities are partially deprived of it Again some estates with every favour of altitude and moisture, are swept by untimely winds to the destruction of the trees and in some districts which are affected by only one monsoon, and lose the benefit of the other the coffee, though in external appearance equal in every particular to the best, is found so deficient in solidity, after being cleared of the pulp, as to require one-third more by measurement, to make a given weight, the difference being nevertheless chargeable with a due proportion of every attendant expense

“ Experience alone, sometimes at variance with theory and calculation, has demonstrated that all these, and an infinity of other and minutier particulars, each more or less affecting the cost of production, and the quality and price of the produce are incident to particular localities, and the discovery has naturally led to the total or partial abandonment of ill situated estates, and proportionate extension of those positions ascertained to be more favoured, and as the gross quantity of land, already brought under coffee cultivation, or purchased with a view to it bears but a small proportion to the great extent now demonstrated to be suitable for it, but hitherto unapplied, there is every reason to conclude, not merely that an enhanced value has been given by the experiment to those situations which enjoy the requisite combination of advantages but that these are of so considerable an expanse as to present an ample field for investment, and to supply the fullest demand which is likely to arise in the European market for the coffee of Ceylon

*Projected Ceylon Railroad* — “ The number of bullock carts employed on the Kandy road, although trebled within the last four years, are still found insufficient for the planters wants Even in May, 1847, it is calculated that with all the available means of transport kept constantly at work on the main roads, it will still require a period of four months longer to bring the coffee of 1846 from the interior to Colombo, whereas, looking to the approaching unfavourable weather the whole of it should have long since been in store there, and the greater part already shipped for Europe Many mercantile firms have still to ship two thirds of their crops, and the two-thirds must necessarily be deteriorated by five to ten per cent, in addition to the interest at nine per cent on the value of the produce thus detained, in addition to which, as the season advances, shipping is becoming scarcer, and freight rising day by day

“ It was a foreshadowing of these coming embarrassments which led to the formation in 1845, of a provisional committee, for the purpose of organising a railway company for Ceylon Various lines of road have since been surveyed, and a favourable one selected, along which it is stated by the engineer of the company, that the railway may be carried from the coast at Colombo, to the central capital at Kandy, in the heart of the coffee districts, at a gross outlay of 800,000*l*, including several costly bridges and an



extensive viaduct. It is suggested, however, that the more expensive portion of the work at the Kandy extremity, where the line begins to ascend the hills, should be delayed, and only those portions more easily accomplished finished in the first instance, so as to give about sixty-five out of eighty miles, for an outlay of about 500,000*l.*; the remainder to be completed hereafter, and in the meantime the ordinary vehicles might be employed at both ends of the line.

*Conveyance Company.*—“*This Company is progressing, and with every prospect of success.* Indeed it can scarcely be otherwise, for so large is their interest in coffee estates of most of the shareholders of the Company, that their own produce alone is amply sufficient to employ the establishment of the Company to a considerable profit, even allowing for lower rates arising from their competition with the native carriers. Their intention is to import bullocks from India, build carts of a peculiar construction, and organise a regular line of communication between Kandy and Colombo, the distinguishing feature of the undertaking being to supersede the long and tedious journeys now made by one pair of oxen from end to end of the line, whereas the conveyances of the Company will be expedited from stage to stage, by relays of cattle, thus reducing the time consumed from eight to ten days, to two or three, and securing the coffee from pillage and deterioration during its present tedious detention.

“Simultaneously with these efforts to facilitate the means of carriage, a material reduction has taken place in the outlay on estates for management, salaries, and other incidental expenses; confidence is being gradually restored.

“The character of the Ceylon produce is rising rapidly on the continent, as well as in England; and I have just heard of a considerable order for coffee on French account, now executing in Colombo; the first, I believe, that has yet been shipped from the island for that destination. But unfortunately, as few French vessels touch here, this coffee has to be shipped in the first instance to Pondicherry, and will thus reach France, burdened with extra charges for freight and insurance.

“*Sugar* has been attempted to be cultivated on a considerable scale in Ceylon, but as yet with only problematical success. Between the year 1837, when the first estate was opened, and the present time, some ten or twelve plantations have been attempted, and capital applied, varying in each case from 5000*l.* to 25,000*l.*; but even the most promising of these is still but experimental, and most of the others have been abandoned.

“The estates attempted in the alluvial soils and near the banks of rivers have been hitherto the most promising, and next to them, those in the moist lands which had formerly been employed in the cultivation of rice. The plantations in elevated situations have all been more or less unsuccessful, and even the finest forest land seems speedily to lose its richness after yielding one or two crops of canes. The plant rises with great luxuriance and apparent vigour, but the juice, when expressed, is found to be deficient in saccharine and crystallisable matter.

“Improved treatment, and the use of manures may, perhaps, remedy this defect; but the latter is difficult to procure, owing to the limited use of cattle in agriculture, and the great expense attendant on all artificial substitutes.

“There are still many unattempted soils in the unexplored parts of the island which may exhibit a different result, but up to the present time, sugar has not been an encouraging speculation, and the island is still dependent for its own consumption on the annual supplies from the other British possessions. These are, to some extent, displaced by the native growth, but only in the inferior qualities, and in situations where the cost of carriage places the imported sugar at a disadvantage compared with the price of that grown in the interior.

*The Cocoa-Nut Palm.*—“The cultivation of this tree has, of late years, become as important as an article of commerce and export, as it has always been as an article of food and home consumption to the inhabitants. During the last six years, between 4000 and 5000 acres have been planted by Europeans, and land suitable for this purpose is still in demand. The produce of these 4000 acres may be estimated at 4000 candelies of copperbats,\* capable of yielding 550 tons of oil, and this at a very moderate

\* The fleshy part of the nut dried in the sun preparatory to crushing.

calculation. These new estates lie chiefly in the districts of Negombo, Jaffna, and Batticaloa, and when the addition thus made within so short a period is taken into consideration along with the prodigious extent of native plantations previously existing, which extend in a belt along the western coast of the island almost from south to north, and on the east as low down as Batticaloa, an idea may be formed of the prodigious capabilities of Ceylon in this one article now rising into so much demand in Europe. Large establishments for crushing the oil by steam have been opened at Colombo, where it is shipped to England for the manufacture of candles by compression.

“By the recent improvements in cultivation introduced by the English speculators, the trees are now beginning to yield fruit in the fifth year, whereas native plantations seldom bear before the ninth or tenth. Unfortunately the years 1845 and 1846 have been characterised by unusual drought in the low countries, and the cocoa nut crops have been so deficient in consequence that the export of native oil has seriously declined, but is certain to revive. The consumption of the nuts for food has likewise greatly increased, owing to the influx of Malabar coolies, and as the demand for this purpose must always be steady, the cultivation of this important tree may be looked on as one of the safest investments in Ceylon.

“The export of *Cour* (the fibre which lines the husk of the cocoa nut), and its manufacture into ropes and cordage, have simultaneously increased. But the rudeness of the process, and the want of proper machinery, must always be a check on its improvement and extension. The subjoined return shows the export of cocoa-nut oil and *cour* for each year since 1837, and under the former head exhibits the diminution I have alluded to as occasioned by the recent droughts.

STATEMENT of Cocoa nut Oil and *Cour* exported from Ceylon in the ten Years ended 1846

YEARS	COCOA NUT OIL						COIR												
	Quantity		Value		Duty		Quantity		Value		Duty								
	gallons	casks	£	s	d	£	s	d	cwt	qr	lb	£	s	d	£	s	d		
1837	638 777	8 776	39	334	7 11	108	7	2	37	737	3	4	8	140	17	2	203	10	6
1838	242,000	285	15	453	6 1	416	6	6	24	95	3	14	2,250	10	11	728	5	4	
1839	35	543	26	30	36 3	664	18	6	22	163	1	0	7,741	13	11	163	11	0	
1840	4	742	32	182	16 4	812	1	6	23	440	3	4	7,519	1	9	194	19	7	
1841	921	961	21	051	16 4	601	11	0	31	643	1	2	7,130	15	0	178	5	6	
1842	475,567		31	242	14 7	856	1	4	36	120	3	36	16,162	1	7	254	1	1	
1843	726	200	42	8	7 17 9	1096	17	0	22,187	1	7	9,118	16	10	27	19	0		
1844	441	301	24	066	15 9	601	13	6	25	977	0	25	9	04	6	0	242	12	8
1845	262	186	12,745	1	10	308	12	7	19	40	2	0	8,255	8	0	206	7	9	
1846	122	351	592	6	7	168	0	8	23	197	2	19	8,724	13	10	218	-	4	

*Cotton*—“The cultivation of this article has hitherto been very limited, and confined almost exclusively to the northern parts of the island, where there is reason to fear that the most suitable soils were not selected, nor the most approved details of cultivation adopted. But now that the success of the great cotton experiment of the East India Company has been pretty well established in several parts of their possessions, and when the consumers of cotton in England are looking to the east for a more certain supply than that which foreign countries afford the cultivation in Ceylon offers a fair field for agricultural industry. Dr Gardner, the able superintendent of the Ceylon Botanical Gardens (who has seen much of cotton cultivation both in the northern provinces of Brazil and in different parts of India) and who lately visited the northern and eastern portions of Ceylon, has stated in some remarks which he has published on the subject, that there are large tracts in that part of the island called the Wann, which he believes to be admirably adapted to the production of cotton.”

TRINCOMALEE is one of the finest harbours in the world. This was the opinion of Nelson. It is strongly fortified.

COLOMBO, the capital, is situated on the west side of the island. It is also

strongly fortified The harbour is far from being good Population above 30,000

POINT DE GALLE has a good harbour, at the south end of the island, and is strongly fortified The Peninsular and Oriental Mail Steam Ships stop here on their way to and from Calcutta, and a branch line proceeds from Ceylon, Singapore, and China

Ceylon has always been famous for its cinnamon and its pearl fisheries

THE population of Ceylon in 1835 comprised the following numbers —

DESCRIPTION	Males number	Females number	TOTAL number
Whites	4 510	3 663	121
Free Blacks	720 41	568 017	11 114 482
Slaves	14 104	18 289	2 3
Aliens and resident strangers			1 25
<b>TOTAL</b>	<b>616 069</b>	<b>584,211</b>	<b>1 241 285</b>

It is supposed that this number has increased to about 1,500,000 The native population consists of Beddahs or Veddahs, the aboriginal inhabitants, who live without clothes or houses, in the great forests, their food consisting of wild fruits and the produce of hunting, &c Cingalese, descended from the Rajpoots of India, occupy Candy and the south-west and south coasts of the island Malabars are settled on the north and east coasts, and the Mussulman descendants of the people of Upper India,—the last are dispersed over the island There are also Chinese, Javanese, Malays, Caffres, Parsee traders, half-caste descendants from native mothers and European fathers, and Portuguese, Dutch, and English The Cingalese are in religion Buddhists, and the Malabars are Hindoos

GOVERNMENT—For some years after its capture, Ceylon was under the control of the East India Company, but from the beginning of 1802 it became entirely a royal government, and was placed under the immediate direction of his majesty's ministers, who now regulate the affairs of its settlements The executive council is composed of the governor, the chief justice, the commander of the forces, who is also lieutenant governor, and the secretary to government There is also a legislative council, which includes the members of the executive council, and thirteen other members The other civil officers are assistant colonial secretary, treasurer, auditor, collector of customs, and several subordinate officers There is a military establishment with a commander-in-chief of the forces In 1802 a supreme court of judicature was established consisting of a chief justice and a puisne judge, annexed to it are his majesty's advocate, registrar, sheriff, and other officers The chief justice takes precedence of all his majesty's subjects on the island excepting the governor, the commander of the forces ranks next, and after him the puisne and district judges

The following is an Account of the Revenues and Disbursements of Ceylon during the period it was under the control of the East India Company —

Y E A R S	R E V E N U E S		D I S B U R S E M E N T S	
	Pagodas		Pagodas	
Nov 1795 to April 1796	numb	6 14 35½	numb	7 07 616
May 1796	1797	7 02 013	1797	6 9 15
1797	1798	6 06 632	1798	5 76 5 7
1798	1799	7 28 237	1799	5 12 043
1799	1800	5 83 148	1800	8 27 8 6
1800	1801	7 30 000	1801	50 000
1801 to Dec 1801	1801	8 43 627	1801	6 21 5 0
TOTAL		50 05 569		47 37 867

The receipts include the revenues of the island, and the remittances from the governments in India, or disbursements made there on account of Ceylon. The disbursements contained the general charges of the island, but it is apprehended that only the extra allowances to the troops were inserted, and that the regular pay is included in the accounts of Madras, &c.

After the island had been in the hands of government until 1813, the disbursements are stated to have amounted to 330,000*l*, and the revenues to about 230,000*l* per annum. In this statement of the revenue, the produce of every source is included, allowing 40,000*l* as the average gain by the pearl fisheries, and the 60,000*l* the East India Company pay yearly for cinnamon, the rest of the revenue is derived from rents of land, markets, and fisheries, taxes of various kinds, and duties on imports and exports — *Milburne*

#### NETT Revenue and Expenditure of Ceylon for Fourteen Years

Y E A R S	Revenue	Expenditure	Excess of Expenditure	Y E A R S	Revenue	Expenditure	Excess of Expenditure
	£	£	£		£	£	£
1811	201 738	411 949	109 491	1816	344 846	450 502	105 656
1812	271 210	370 491	99 091	1817	440 080	414 491	76 4 1
1813	310 806	491 770	170 070	1818	350 506	434 436	91 601
1814	312 416	409 269	97 053	1819	342 375	475 440	133 065
1815	376 737	511 434	134 697	1820	404 122	476 603	72 481

Yet the excess of expenditure in the latter years of the finances of the colony, as stated in the Ceylon almanac for 1833, gives the revenue and expenditure from 1821 to 1833 as follows —

Y E A R S	Revenue	Expenditure	Excess of Revenue	Excess of Expenditure	Y E A R S	Revenue	Expenditure	Excess of Revenue	Excess of Expenditure
	£	£	£	£		£	£	£	£
1821	450 699	481 854		22 155	1827	561 45	411 644	149 801	110 113
1822	475 662	450 796	15 368		1828	505 12	33 516	471 606	26 604
1823	35 401	470 242		1 0 835	1829	1 3 544	314 5	1 3 549	417 7
1824	387 749	441 592		54 333	1830	403 475	34 629	368 846	146
1825	335 320	493 329		148 009	1831	120 170	3 6 366	118 156	
1826	377 366	534 2 1		157 370					

COMPARATIVE Yearly Statement of the Revenue of Ceylon, from 1833 to 1836

SEPARATE TAX OR DUTY	1833	1834	1835	1836
	£	£	£	£
<b>REVENUE OF FORMER YEARS</b>				
Revenue balance outstanding recovered	5,263	4,910	5,719	4,413
Cinnamon and cinnamon oil (balance of sales in England)	105,211	65,470	21,900	
<b>REVENUE OF THE CURRENT YEAR</b>				
Sea customs (duty on imports and exports exclusive of cinnamon)	64,419	103,080	66,578	65,418
Export duty on cinnamon			47,810	74,631
Sale of cinnamon	25,59	4,079	13,929	52,584
1 day farms, rented and unrented	32,306	41,414	32,546	32,181
Fine grain farms ditto ditto	2,34	3,190	2,798	4,734
Common farms ditto ditto	1,503	315	407	856
Salt farms ditto ditto	29,144	21,542	32,407	31,972
Arrack and toddy farms ditto	31,08	25,050	31,599	32,755
Fish farms	6,450	5,467	6,83	7,412
Chank farms	1,3	1,909	1,211	
Ferry, dog canal and lock tolls	5,760	5,964	5,492	5,06
Duty on arrack stills	1,634	2,459	1,750	2,205
Post office	25,043		40,247	25,816
Salt stills at mp	3,141	2,35	2,710	2,856
Sale of judicial stamps	10,172	10,46	10,509	10,84
Collectors' postage	1,828	1,85	2,484	2,567
Profit and loss premium on sale of bills interest on arrears of rent &c	5,371	1,632	3,770	3,872
Revenue on the lands and fisheries	817	17	4,830	6,984
Customs on colonial stores and provisions &c	23,107	37,131	39,205	2,58
Miscellaneous	20,074	15,610	20,457	7,15
<b>TOTAL</b>	<b>432,296</b>	<b>3,570,000</b>	<b>568,188</b>	<b>400,503</b>

The accounts of the expenditures for these years, and until later years, appear too confused for us to introduce the same, and we consider the following statements sufficient in order to understand the present fiscal state of Ceylon

*Abstract from the Official Account of the Revenue and Expenditure of Ceylon, for the Year 1846*

Compared with the revenue of 1845, the receipts of 1846 exhibit a decrease, under particular heads, amounting to 51,089*l* and, after deducting from this a simultaneous increase on others to the extent of 13,347*l*, the returns still show a diminution of income equal to 37,742*l*

The main sources of income—the sea customs, the salt sales, and the stamps and excise, exhibit no tendency to decline; those in which a fluctuation has been perceptible, are rather the casual than the permanent sources of income

	£	s	d
The revenue and receipts of 1845 were	4,114,6	6	6
Those of 1846	4,164,03	13	24
<b>Decrease</b>	<b>37,742</b>	<b>11</b>	<b>34</b>

The falling off in the proceeds from the sale of government lands, accounts for 24,892*l* 9*s* 9*d* of this sum

Another item which enters into the decrease of 1846 is 6,479*l* 1*s* 9*d* arising from the sale of a residue of the old stock of government cinnamon but this may properly be regarded as a casualty that source of income having ceased with the abolition of the government monopoly

In the tax upon paddy and fine grain farms there was a falling off of 4,092*l* 1*s* 10*d* owing to a diminished production, occasioned by the untoward drought of the season

On arrack and toddy farms there was also a decrease of 2,768*l* but as these are always sold by public competition, their sale is liable to be affected by external and often capricious causes otherwise inexplicable

After deducting the increased heads from the gross deficiency of the year, the net diminution of income, 37,742*l* will be exhibited as follows—

	£	s	d	£	s	d
<b>Decrease on sale of leads</b>				24,892	9	9
on sale of ammoniac				64	9	1
on customs (principally in the northern province)				4,730	5	8½
on paddy and five grain farms				4,092	14	10½
on arack and toddy farms.				2,704	1	1½
on tolls				1,504	10	4½
on judicial stamps				1,138	18	1
on sale of coals				1	75	9
on commissariat stores and provisions				811	13	24
on other heads of revenue and judicial receipts				3,132	6	3
<b>Deduct Increase on the following Heads —</b>				51,080	19	6½
<b>On arrears of revenue of former years recovered</b>						
salt	1844	13	2½			
blank stamps	1,792	19	9			
assessment tax on houses	116½	10	8½			
freight and passage per steamer "Seaforth"	1700	13	2½			
subsidies of salaries of the civil service	73	0	1½			
surcharges recovered	64	5	3			
other heads of receipts	2281	18	7½			
	2,303	0	10½			
				1374	1	3
<b>Nett decrease</b>				37,742	11	3½

"The increase of the income of salt has arisen, not merely from an increased activity in the trade in that article in the interior of the island, but likewise from an increased exportation to Bengal, and the Straits settlement. The recent great reductions of duty on Indian salt in India, will occasion the export from Ceylon to elsewhere.

**Expenditure** — "As compared with the expenditure of 1845, that of 1846 exhibits an increase of nearly 70,000*l*. Expenditure, 1846, 498,205*l* 8*s* 10*d*. 1845, 448,232*l* 11*s* 10*d*. Increase, 1846, 49,972*l* 17*s*. And as compared with the receipts within the year, the outlay exceeds it by upwards of 80,000*l*.

#### REVENUE and Expenditure of 1846

	£	s	d	£	s	d	
<b>Revenues and receipts in the colony</b>	415,923	5	7½				
<b>Receipts by the agent in England</b>	1,810	9	7	416,403	25	2½	
<b>Expenditure in the colony</b>	464,445	10	10				
<b>Expenditure by the agent in England</b>	33,659	18	0	498,205	9	10	
<b>Excess of Expenditure</b>					41,801	13	4

"As compared with the expenditure of 1845, the increase in that of 1846 is accounted for under the following heads —

	£	s	d
<b>Increase in civil expenditure</b>	2,129	3	8½
<b>Ditto military ditto</b>	1,590	3	7½
<b>Ditto commissariat ditto</b>	9,036	19	8½
	50,176	6	9
<b>Deduct decrease on the expenditure of agent in England</b>	53	1	9
<b>Nett increase</b>	49,972	17	0

**Public Works** — "In the department of Public Works, valuable progress has been made during the past year, the advantages of which will be immediate and permanent.

"During the early part of 1846, extensive surveys were made of the cinnamon plantations which extend on all sides around Colombo.

"In the central province a map of one district, embracing 30,000 acres has been nearly completed and simultaneously with the scientific advantage thus secured, allotments of crown lands, to the extent of 2600 acres, have been defined and partly disposed of.

"In the town of Badulla, several new streets have been opened along which allotments have been surveyed and sold, and plans have been prepared for the purpose of enabling the government to issue grants in perpetuity to persons who have occupied land in that town upon temporary certificates, or who claim prescription.

"In addition to surveys of ninety tracts of land, containing 4770 acres, were executed during the same year for various purposes; either for sale, for the arrangement of contending claims, or for special reports to government.

"In the eastern province, seventeen allotments, containing 5425 acres, have been surveyed for sale; and in the northern province, upwards of 1000 acres. Some progress has also been made with a minute survey of the town, and gravets of Jaffna.

*Roads.*—"The extent of roads in Ceylon in 1841 (including the entire coast line from Putlam through Jaffna, Trincomalee, and Batticaloa to Hambantotte), was 15,722 miles; at the end of 1846 it was 2358 miles; 786 miles having been opened during the five years.

"It is necessary, however, to explain that along the 538 miles of coast above-mentioned from Putlam to Jaffna, and thence down the entire eastern coast to Hambantotte the road consists of nothing more than a time-worn track, for the most part over arid sandy flats.

"But the 786 miles opened are through all varieties of country, and differ in their state of completion, from that resulting from an expenditure of 20*l.* a mile in the low flat countries, to that of nearly 500*l.* a mile in some of the mountain districts. The following is a statement (fractions excluded) of expenditure on roads, and amount of tolls from 1842 to 1846:—

DESCRIPTION.	1842	1843	1844	1845	1846	TOTAL.
Expenditure .....	£ 22,147	£ 24,855	£ 25,431	£ 27,168	£ 61,692	£ 201,691
Tolls .....	16,088	16,569	15,323	27,298	27,627	107,065
DIFFERENCE.....	12,159	8,273	10,048	29,873	38,195	94,535

*Civil Engineer's Department.*—"Of the public buildings in progress under the Civil Engineer's Department during the year, the prisons are the most important. The new criminal goal at Wellicadde, two miles from the Fort of Colombo, has had an addition of sixty separate chambers or cells in one range of two stories divided by a corridor. Two wings have been commenced containing each twenty chambers, and these are to be connected with the main range by an observatory, on the Panoptikon system. A wall sixteen feet high encloses the premises; 200 criminals are confined, and being taught, under the instructions of the Civil Engineers' Department, to work as artificers, &c.; they have been extensively employed in the buildings now in progress at the prison. Outside the walls a guard-house, store-room, and cottages for overseers, and other works have been constructed. The whole will be finished at a cost of 4400*l.* and will, when completed, be the best arranged and most secure public prison in the East.

"At Hulsdorp, in the immediate vicinity of the supreme and district court houses, a prison has been built at a cost of 3800*l.*; it has eight wards for the confinement of ninety-six civil prisoners and women, and twenty-six chambers of twelve by eight feet for persons under trial for criminal offences.

"Extensive alterations have been made at the goal at Kandy, at an outlay of 1000*l.* A lock-up house at Matele has been enlarged at a charge of 200*l.*, and another at Kaigalle, on which 290*l.* has been expended.

"A lunatic asylum is far advanced towards completion at Colombo, at a cost of 4200*l.*, with accommodation calculated for 120 patients, and residences for their attendants and medical officer.

"The supreme and district court house at Jaffna has been thoroughly repaired, at a cost of 350*l.* A residence is now in course of preparation at Jaffna for the judges on circuit, which, when completed, will cost 800*l.* At Kandy a commodious police-station house has been constructed for 680*l.*, and another at Kaigalle for 540*l.*

"At Peradenia, near Kandy, a new residence for the superintendent of the Royal Botanic Garden has been erected at a cost of 800*l.*; and at Colombo, a range of public offices, with accommodation for the civil engineer, the surveyor-general, and the commissioner of roads, have been nearly completed by private contractors for the sum of 3800*l.*, voted by the Legislative Council.

"An addition has also been made, at a cost of 780*l*, to the government printing-office, to give room for the bookbinding establishment and records and a record room and other additions have been made to the Colombo cutcherry, and its offices, at a cost of 840*l*. There is still, however, not sufficient room for the numerous records of this office.

"At Kandy, an office has been created for the Civil Engineer's Department, at a cost of 340*l*, and at Nuwera Eelia a commissariat store-house is in progress on an estimate for 1570*l*, superintended by the Royal Engineer Department.

"In the Fort of Colombo, a large upper-roomed building with offices has been erected at a cost of 1890*l*, as a rest-house, and let to an hotel keeper at an annual rent of 100*l*.

"At Kurnegalle, a rest house and offices have been built at a cost of 500*l*, and at Matele, sixteen miles from Kandy, on the Trincomalee road, a rest house and offices have also been built at a cost of 760*l*.

"Five masonry bridges, of from ten to thirty feet span, have been erected at Colombo, Cotta, Paratara, Negombo and Trincomalee, at an expense of 852*l*. A fine bridge of two arches, each thirty five feet span, has been thrown across a dangerous river, the Talata Ova about four miles from Kandy on the Trincomalee road, at a cost of 1900*l*, and 2700*l* have been voted by the legislative council for the repairs of the great wooden bridge across the Mahawella ganga at Peradenia.

"Important improvements have likewise been made, at a serious cost, in the town of Kandy and the unfortunate frequency of the visits of cholera during the last year and its ravages amongst the European troops will render further expenditure indispensable for the completion of the sewerage, and the improvement of the artificial lake to whose noxious exhalations much of the prevailing disease has been, with too much apparent justice, ascribed."

Notwithstanding the glowing accounts given of the revenue and expenditure of Ceylon, both appear to us as requiring great revision.

*Cinnamon*.—"The best cinnamon is known by the following properties, it is thin, and rather pliable, it ought to be about the substance of royal paper or somewhat thicker. It is of a light colour, and rather inclining to yellow, bordering but little upon the brown. It possesses a sweetish taste at the same time is not stronger than can be borne without pain, and is not succeeded by any after taste. The more cinnamon departs from these characteristics, the coarser and less serviceable it is esteemed, and should be rejected if it be hard, and thick as a half crown piece, if it be very dark-coloured or brown, if it be very pungent and hot upon the tongue, with a taste bordering upon that of cloves, so that it cannot be suffered without pain, and so that the mucus upon the tongue is consumed by it when several trials are made of it or if it has any after taste, such as to be harsh, bitter, and mucilaginous. Particular care should be taken that it is not false packed, or mixed with cinnamon of a common sort.

"This spice was known to the ancients long before nutmegs or cloves. In 1621 no mention is made of cinnamon as an article of import from India. The Portuguese being in possession of Ceylon, it was to be procured only at Lisbon. In 1686 the Dutch imported from the island 170,000lbs of cinnamon which is stated to have been rather less in quantity than in some preceding years. It would be difficult if not impossible, to trace the quantities brought into Europe at this early period. In 1730 it appears the Dutch imported in ten ships 640,000lbs. In 1776 the King of Candy agreed to deliver to the Dutch all the cinnamon which grew in his territories at five pagodas per bale of 88lbs. In the five years, 1775 to 1779 inclusive, the amount sold on an average was 380,000lbs per annum.

"The following is an account of the quantities of cinnamon sold at the Dutch East India sales in the years 1785 to 1791 inclusive, together with the sale amount in each year.

YEARS	Quantity	Value	YEARS	Quantity	Value
	lbs	£		lbs	£
1785	300 040	159 470	1789	403 400	22 95
1786	483 920	260 005	1790	3 590	205 945
1787	144 000	82 470	1791	183 766	100 235
1788	485 600	253 765			



"In 1795, on the capture of Ceylon by the English, the East India Company paid 180,000*l.* to the captors as the value of the cinnamon found in the various storehouses on the island.

"The following is an account of the quantities of cinnamon belonging to the East India Company, sold at their sales, in the years 1808 to 1810 inclusive, with the sale amount thereof, likewise the quantities retained for home consumption, and the nett revenue collected thereon.

Y E A R S.	March Sale.		September Sale.		TOTAL.		Retained.	Revenue nett.
	lbs.	£	lbs.	£	lbs.	£		
1808	198,673	37,403	158,594	26,101	357,267	63,594	8,752	676
1809	158,501	34,599	109,182	44,150	267,683	78,659	9,830	2084
1805	58,438	6,586	171,580	32,572	330,018	22,565	5,673	1405
1806	151,195	29,111	146,601	23,053	297,796	61,216	10,889	3513
1807	168,072	49,587	198,674	67,914	366,746	116,291	7,974	2482
1808	167,817	37,374	164,814	37,600	332,631	114,974	13,146	3619
1809	250,969	72,854	302,555	80,772	553,524	151,620	10,967	3487
1810	180,134	75,425	122,820	20,132	302,954	125,538	11,964	2818

"The following is a statement of the cinnamon exported from Ceylon, in the year ending 31st of December, 1844:—First sort, 32,856½ lbs.; second sort, 210,354½ lbs.; third sort, 100,788 lbs.; quality unknown, 697,321 lbs.; total, 1,041,320 lbs.

MEMORANDUM of Government assorted Cinnamon in the Warehouse at Colombo, on the 31st of December, 1844.

DESCRIPTION.	1st Sort. 2d Sort. 3d Sort. TOTAL.			
	bls.	bls.	bls.	bls.
Cinnamon of 1833.....	..	1	..	1
" 1839.....	..	1	..	1
" 1840.....	..	2	..	2
" 1841.....	5	7	1	13
" 1842.....	24	161	61	246
Total.....	29	173	63	265

"The production of the present year is likely to be but small, many gardens having been quite neglected, owing to the indifferent prospects of the trade. A few properties only have been carefully attended to, and kept in good order, and in these the produce will probably be large, and of good quality. But the wild or jungle cinnamon has ceased to be peeled for the last two years, nor is it likely to be resumed so long as the duty remains at its present high amount. In fact, although the government monopoly of sales was abolished, and the gardens sold by public sale, the monstrous export duties have nearly ruined the cinnamon planters."

*Other Spices.*—"Hitherto the cultivation of spices, except cinnamon, has been scarcely attended to, though both the soil and climate appear, from the little which has been done, to be admirably adapted to their more extended production. Within the last few years, a few small plantations of cloves and nutmegs have been established from plants and seeds supplied from the botanical gardens at Peradenia, and the result is looked forward to with great interest. Cardamoms and ginger might also be successfully cultivated to any extent, and would be a profitable occupation for the natives were they as industrious as those of the Malabar country, where both these articles are extensively cultivated. The same observations apply to different kinds of plants which are valuable as dye-stuffs, such for example as the choya-root and the indigo, both of which are indigenous to the soil."

*Chocolate.*—"Chocolate is another production which might be extensively cultivated here, particularly in the hot and humid parts of the low country, which Dr. Gardner states to be very similar to those parts of South America in which the tree is so extensively cultivated. There is a small plantation in the botanical gardens, but at that elevation, nearly 2000 feet, the tree does not grow freely. A considerable quantity of

seed is, however, now produced annually, from which plantations could be established without difficulty."

*Tea* — "The tea plant has lately been cultivated to some extent by the Messrs Worms, the most enterprising planters in the island, at their estate at Pesalawa. The climate of that district, which is about 3000 feet above the level of the sea, seems well adapted for the growth of the plant, but the very great difference between the price of labour in Ceylon and China will, it is feared, prevent its profitable cultivation."

*Timber* — "The forests, especially in the interior, and on the eastern side of the island, abound in magnificent trees, many of which are well known to be valuable, not merely for economical purposes, but from their extreme beauty and suitability for cabinet work. As yet, less attention has been directed to the productions of the forests of the interior than to those of the coast, and ebony is the only export, and even this to a trifling amount."

*Rice* — "In former times, rice was much more extensively produced in Ceylon than it now is, more especially in the northern parts of the island, the decrease being obviously connected with the decrease of the Tamil population in that quarter from political causes. All that appears to be requisite for the extension of the cultivation of this essential article of food, is the re-introduction of that industrious people, and the restoration of the tanks which have fallen into decay, for the purpose of irrigation."

"Ceylon has this year however (1847), exhibited the unusual circumstance of an export of rice to Great Britain. This has arisen from the extraordinary demand, and the high price of bread stuffs at home, and advantage has been taken of the favourable state of freights as compared with Bengal, to re-export to England grain which had been imported for consumption in the colony."

*The Ceylon Botanic Garden* — "The attention of its superintendent, Dr Gardner, has been directed not merely to scientific investigation, but to the introduction from other countries, and the acclimatised cultivation of such exotic plants, as are likely to add to the agricultural wealth of the island."

"Previously to the arrival of the present superintendent, who was selected by Sir W. Hooker, the garden had been so neglected as to be almost valueless to the colony. By Dr Gardner's attention and exertions, it is now one of the most flourishing and useful institutions in India, large nurseries have been established for the propagation and distribution of useful plants, which are sold at a trifling price to the public, and numbers of foreign trees and vegetables have been successfully introduced. The result has been that hundreds of thousands of trees and plants of all descriptions, have been dispersed throughout the island, at a very moderate cost to the Government. Dr Gardner is likewise engaged in the preparation of a 'Flora Ceylonica,' a work which will contain descriptions of all the plants indigenous to the island, so far as he can obtain them and thus make known to the scientific world the history and uses of the vegetable productions of a region, of which less is known to the botanists of Europe, than any other portion of India of equal extent."

*Minerals* — "With the exception of a very brief sketch in Davy's 'Ceylon,' nothing has been published, and little is known of the geology or mineral productions of the island. The formations are essentially primitive, and present but few features of novelty, gneiss being the principal rock. Dolomite is found in isolated positions in the interior and is the source of the lime used by the natives in that part of the country burnt coral being in general use in the north, and along the coasts."

"Coal is not likely to be discovered in any great quantity, although the unusual circumstances under which it has lately been found in Northern India, render any doubt on this subject hazardous."

"Iron ore is frequent, and has been worked from time immemorial by the natives, but it is questionable, whether the richness of the veins is sufficient to justify any extensive operations."

"Tin has been found in the Saffragam district by Dr Gygax, a Swiss mineralogist of some eminence, and it is not unlikely that it may yet be opened in considerable quantity, as it is principally in metamorphic rocks like those of Ceylon that mineral

veins are found to exist, and generally in mountainous districts or their immediate vicinity

*Copper ore* has also been discovered in the south and in the immediate vicinity of water carriage. But without more satisfactory examination and evidence engagements for working it cannot safely be entered into

*Quackiver* has lately been procured at Cottah, in the immediate neighbourhood of Colombo, but only in small quantities. It had been discovered in the same spot in 1799

"In the Gallic district *ksolin*, or decomposed feldspar, of a fine white quality and even texture, has been recently found in great abundance. It is well adapted for the manufacture of the finer kinds of pottery and paving tiles, but the art of pottery and brick-making is here in the very rudest state, and much good would result from introducing some simple improvements in this branch of industry

*Anthracite* coal has lately been turned up in Safragam

*Plumbago* is at present the only mineral which is exported on a large scale. It is found at the depth of eight or ten yards in pretty rich streams in the neighbourhood of Caltura. The trade in it, during the last seven years, is exhibited by the following return —

YEARS	Quantity	Value	Duty
	cwt qrs lbs	£ s d	£ s d
1840	951 0 0	132 10 1	8 1 4
1841	2 02 2 7	208 9 4	0 14 3
1842	7 25 0 3	1 31 14 4	30 16 0
1843	3 07 8 20	522 17 4	13 2 0
1844	5 14 3 22	1204 12 10	20 7 4
1845	19 245 0 15	2151 19 7	61 6 0
1846	25 037 3 7	3036 2 5	75 16 1

VALUE of Imports and Exports

I M P O R T S				E X P O R T S	
YEARS	Merchandise	Treasure	TOTAL	YEARS	TOTAL
	£	£	£		£
1845	722 147	174 311	794 58	1841	463 445
1846	72 1145	311 1 1	1 0 1 22	1842	4 1 053
1844	815 243	517 705	1 456 037	1843	571 86
18	1 0 5 0	441 1 7	1 49 127	1844	503 1 40
1843	8 4	391 42	1 3 2 04	1845	41 3 456

"These inferences and observations, however apply almost exclusively to the operations of Europeans and the results and success of foreign investments and the speculations of others, than the natives of Ceylon. It is a remarkable circumstance, but one easily accounted for, that all the activity and energy now so busily manifested throughout every district of the island, and applied to every encouraging department of commercial enterprise, is confined to strangers and immigrants alone and that the Cingese themselves take no apparent interest, and show no evidence of being participants in the general prosperity

"Though seldom in want of the first necessities of life, and although the great mass of the population is very much elevated above that which constitutes poverty in other countries, it is a singular fact, and somewhat discouraging that *there is not a single native capitalist in Ceylon* though some are proprietors of land to a considerable extent and enjoy a corresponding rank and influence in their localities

"Under their former rulers, the low country was in the hands of the Dutch, who asserted their monopoly over all commerce under capital penalties. The population of the high lands and mountains of the interior, were in like manner prohibited by their rulers from all trade or even intercourse with foreigners. Money was unknown amongst them inasmuch as there was nothing on which to expend or in which to invest it. The king was the absolute owner of all lands, and never permitted their alienation to private parties, merely permitting their temporary cultivation as the reward of public services,

and thus property in land being unattainable and commerce prohibited, the accumulation of money was never thought of by the natives, and rank and the power of oppression became the sole objects of ambition

"This spirit, though checked in its manifestation, still lives in its results, and to the present day the upper classes have neither the means nor the inclination to embark in active pursuits, and the lower classes universally refuse to labour, or to enter into the service of any but their immediate chiefs

"Even the few headmen who have recently ventured to undertake plantations of coffee and cinnamon, employ not Cingalese but Malabar labourers

"No Cingalese is the owner of a vessel larger than a fishing-boat and no Cingalese is a merchant at Colombo, or any seaport in the island, the small craft by which the coasting trade, and the intercourse with India is carried on being exclusively the property of Moormen, Parsees, and Malabar Chetties, from the Coromandel coast A few Dutchmen navigate square-rigged vessels, but there are very few

"The craft generally in use consist of brigs, schooners, and dhoneys, varying in size from 1 to 150 tons, the latter are badly built, cannot beat against the wind, and, consequently, are chiefly employed only during the north-east monsoon, from November to April, and laid up for the rest of the year Their brigs and schooners run round the island, and visit both the Coromandel and Malabar coasts, chiefly for grain They sail also, during some part of the south-west monsoon, but are not generally considered very seaworthy They are all manned by Lascars, and, in almost every case, are commanded by Portuguese or Dutch

"The registered tonnage of the Colombo district is 15,000 tons, and of the rest of the island about 20,000 tons This description of property is evidently on the increase, and as the demand for timber and cattle from the eastern side of the island increases and the large tracts of land planted with cocoa-nuts in the northern and eastern districts become productive, there will be a much greater demand for tonnage of this description

"Most of the dhoneys are built at Ceylon, but the schooners and large vessels are nearly all built at Cochin, on the Malabar coast

"The native Cingalese are equally unconnected with the internal commerce of the island all of which is conducted by Moormen, Malabars, Parsees, and strangers, many of whom only come over from the coast of India for a season, and return again to their wives and families All the business of the country is carried on with the capital of these men, and that of the British merchants and planters, and the Cingalese themselves see these operations going on from day to day for the advantage of foreigners without an effort to participate, either as employers or labourers, in the general benefits which are increasing around them

*Foreign Shipping* — "The amount of shipping inwards and outwards, during the year 1846, exceeds that of the former or any previous year, being,

Inwards	211 946 tons
Outwards	211 424 tons

"Freights formerly ruled higher in Ceylon than in the presidencies of India But owing to the late advances in the price of cotton, and the demand for bread-stuffs in Great Britain, freights in Bombay and Calcutta are considerably higher than at Galle or Colombo, and another circumstance which has considerable influence in keeping down the rates, is that Ceylon is more resorted to than formerly by seeking ships, as well as by vessels arriving with coal for the steam vessels, and which, of course, look to obtain a homeward freight in return

*Banks, Interest, and Exchange* — "There are two banks, both formed by a proprietary almost unconnected with Ceylon The bank of Ceylon was incorporated by royal charter in 1840, and its operations are confined exclusively to this colony The Oriental Bank is a branch of more considerable establishment, with a board of directors in London and another in Bombay, where its operations are considerable, as well as at Calcutta, Madras, Canton, Hong Kong, and Singapore

"The capital of either establishments, as applied to this island, is not considerable, being about 100,000*l* to 125,000*l* each The circulation of either is proportionally

limited, that of the *Oriental Bank* being about 15,000*l.*, in 1846, and that of the other 27,487*l.*

"The operations of both are principally confined to the receipt of deposits, the sale of bills on England and the presidencies of India, and to local discounts to merchants and traders. The latter mainly comprise purchases made by the Chetties from importers, chiefly of British produce, and the acceptances of the Moormen retailers, whose paper is for smaller amounts, proportionate to their minor transactions.

"As regards deposits and the usual business of banking, the transactions of the year 1846 show a considerable increase over that of 1845, the payments made by parties keeping accounts being in the latter year about one million and a half; whilst those of 1846 are considerably above two millions. So far as I can collect opinions, the nature of the business at present carried on by the merchants of Ceylon generally, is of a sound and steady description, and partakes little of a speculative character; whilst the statements given above afford a fair view of the increasing value and importance of their operations."

*Moneys*.—"Mercantile accounts are kept in British currency, but the following moneys also circulate in the island, viz. :—

3 chollies = 1 pice.  
4 pice = 1 fanam = 1*4d.*  
12 fanams = 1 rix dollar = 1*s. 6d.*

The Company's rupee is current at 2*s.*, and the Spanish and American dollar at 4*s. 2d.*

RATES OF AGENCY AND COMMISSION.

	per cent.
On all sales, purchases, and shipments .....	5
With the following exceptions :—	
On all purchases of cinnamon, on purchase-money, and duty included .....	2½
On the returns made with the proceeds of goods on which commission has been previously charged, if in coffee or cocoa-nut oil .....	5
In every other description of produce .....	2½
On diamonds, pearls, precious stones, and jewellery .....	2½
On treasure and bullion .....	1
On all property withdrawn, shipped, or delivered to order .....	2½
On guaranteeing sales, bills, bonds, contracts, or other engagements .....	2½
On ship's disbursements .....	5
On advertising for freights and passengers on the amount of freight or passage money, whether the same pass through agent's hands or not .....	5
On effecting or writing orders for insurance .....	0½
On settling losses, partial, or general, and returns of premium .....	1
On procuring money on <i>respondentis</i> .....	2½
On attending the delivery of contract goods, or receiving and delivering private commissions of merchandise .....	2½
On total sum of debit or credit side of an account at the option of the agent, excepting items on which a commission of 3 per cent is chargeable .....	1
On effecting remittances, or purchasing, or selling, or negotiating bills of exchange .....	1½
On letters of credit granted .....	2½
On the management of estates as executors, administrators, or attorneys .....	5
On debts where process at law or arbitration is required .....	2½
And if recovered by such means .....	5
On bills of exchange, notes, &c., dishonoured .....	1
On over-due debts collected for absentees .....	5

TARIFF.—INWARDS.

	s. d.		s. d.
Ale and all other malt liquors in casks per gallon .....	0 2½	Rice, per bushel .....	0 7
Do. in bottles, per doz. ....	0 6	Spirits and liqueurs, per gallon .....	4 6
Books, bullion, pearls, and precious stones, coal, copperah, garden seeds and plants, cattle, instruments, machinery, and implements for agriculture and manufacture, army clothing, &c., and timber .....	free.	Tea, per lb. ....	0 6
Opium, per lb. ....	1 0	Wine in bottles, per gallon .....	2 0
Gunpowder, per lb. ....	0 3	do. not in bottles .....	1 0
Paddy, per bushel .....	3 0	do. the produce of the British possessions .....	0 6
		Goods, wares, and merchandise not otherwise charged with duty, being the produce of the United Kingdom or British possessions, on the market value, per cent .....	5 0
		Do. of foreign states .....	10 0

*Prohibited.*—Arms and gunpowder (except by special authority from the governor), cinnamon do oil, cassia, do buds, coffee (except for warehousing) rum rum shrub or sugar (except for warehousing) the produce of any foreign country or British possession into which foreign sugar can legally be imported

## OUTWARDS

Books, bullion coin pearls, precious stones, cattle iron tanks casks staves, headings and hoops	free	Cinnamon oil per oz	0 4
Cinnamon per lb	1 0	Goods wares and merchandise the produce of Ceylon not being subject to other duty on the value	per cent 0 2½

“The interest on money at all times high in Ceylon, has been especially so during the last year, on mortgage of landed property and other undoubted securities seven and eight per cent could have been obtained during 1843, 1844, and 1845, but in 1846 similar accommodations have cost nine and ten per cent habitually, and even so high as twelve and fourteen. In some instances, so much as eighteen per cent has been given on the security of houses and ground in Colombo, and as this was paid in advance, the charge may fairly be taken as an equivalent to twenty-two per cent per annum.”

*Gold.*—“The quantity of gold imported during 1846 has been very considerable. It would, however, be impracticable, to ascertain the amount, as large sums are daily brought into the island by private individuals, who of course never enter such at the custom house. The high price maintained for the precious metal is very surprising, the average may be quoted at 11 2s 6d per sovereign.”

*Pearl Fishery.*—“The result of an inquiry led to the appointment, as resident-supervisor of the pearl banks, of an old naval officer, well informed in his own line, but entirely destitute of that local experience so necessary in such a position. This measure, so far as the pearl-fishery was concerned, appears to have been not only useless but unfortunate. ‘We cannot say with respect to this absurd government monopoly, observes the *Colombo Observer*, ‘that on this score we feel any great regret. Indeed, notwithstanding the recent legislation on the subject, we cannot help hazarding the supposition that it would be well if no more measures were taken and no more anxiety felt respecting the pearl-fishery. Would it not be far better to throw an extensive range of coast open to the untrammelled exertions of industrious fishermen than to resort to stringent enactments to secure at best a very uncertain revenue from a product that adds nothing to the comfort and happiness of ‘the many how much soever it may be valued by the idle, the rich, and the luxurious? The recurrence of a pearl fishery would once more bring a stream of living beings to line and animate the coast extending from the village of Arripo to that of Silawatoire.—Asiatics would be there to speculate and Europeans would once more look curiously on, and fancy their appetites improved by the vapours of putrefaction—supplies of all kinds (not forgetting coffins) would pour in, and ‘the revenue would be fattened with the rich result.’ But at what cost would this ‘rich result be obtained? At that of the morals and happiness of immense numbers, for drunkenness debauchery, and gambling of the worst kinds are the inevitable concomitants of a pearl-fishery.’

“Perhaps the protection of the banks costs more than has been realised these guineas are not therefore to be valued like common guineas, and we dare say the prize-holders in the *pearl lottery* think their pearls as valuable as in the days of Cleopatra.

“The most productive pearl-banks, are situated off Condratchy extending thirty miles from N to S and twenty miles from E to W. The fishery commences in March, when the calm weather permits the boats to go out and return daily.

“Kilecarre is most probably the Colchi mentioned in the Periplus of the Erythraean sea as the site of these fisheries and they are carried on in the same manner as described by travellers several centuries ago. The ancient towns of Mantotte and Patlan probably derived much of their importance from their vicinity. In 1803, 1250 divers were employed, of whom 1100 were volunteers from the opposite coast. The share of profits gave each individual 5s 9d per day for the time he was employed, the price of ordinary labour being 6d per day. But each bank being available only for one period, of about twenty days in every seven years, sometimes the fishery is smaller, and sometimes there

is none at all ; and in no season does it last for more than thirty or thirty-five days, commencing with the calm weather about the 5th of March. The divers in six or seven fathoms of water, remain immersed from fifty to fifty-five seconds—very rarely longer. A reward being offered to him who should remain the longest under water, it was gained by one who remained eighty-seven seconds. The diver's sack is not fastened round his neck, but is attached to a cord held by the man in the boat above : and it is pulled up when full, at the signal of the diver, who, if he choose, is drawn up with it. So far from the occupation being unhealthy, it is the belief of the natives that divers live longer than other labourers ; and its short season is hailed as a gainful holiday by the divers themselves, who at other times are engaged in ordinary labour. If the oyster is taken before seven years old, its pearls are imperfectly developed ; vigilance is therefore necessary to prevent indiscriminate fishing, which would destroy the banks, or at least render them quite unproductive. The pearls are sold by the government to the highest bidder.

“ About seven years is the maximum age of the pearl oyster ; but after six years they are apt to die suddenly in vast quantities. The nearer to seven years that they are fished the richer is the harvest ; if they live beyond that period the pearl loses its rich lustre.

“ From 1799 to 1820, there were eleven fisheries which produced 297,103*l.* 10*s.* 3*d.*, and from 1820 to 1837 there were nine fisheries, producing 227,131*l.* 13*s.* 6*d.* Thus twenty fisheries realised upwards of half a million of net revenue.

“ The time for inspecting the banks is in the lulls between the monsoons in October and November, and the fishery always takes place at the change in March and April. A fishery used to create the utmost excitement along the whole coast of India, and as many as 4000 or 5000 people have congregated about the barren shores of Aripo, which means *a sieve*, and which appears to derive its name from the sifting and sorting the pearls through a succession of ten or twelve brass cullenders of the size of a large saucer. The largest holes are in the one at the top, and the lower the pearl falls the less is its value.

“ The days for fishing are not only limited but the hours as well as the number of boats and divers. They fish up every thing they come across, and there is little time to discriminate, as their time is so valuable ; it has sometimes been at the average of 6*l.* sterling a minute ! The most suitable depth of waters appears to be from six to seven fathoms, and the diver seldom remains below so long as a minute ; although for payment, or as a trial of strength, some of them have remained much longer, and they bring up about fifty oysters at a time.

“ Among the numerous frequenters and officials at a fishery, a shark charmer is an indispensable attendant, though accidents from sharks are unknown. The office has been hereditary for several generations. He gets 9*d.* a day from government to assure the divers that he has secured the mouths of the sharks and driven them from the banks.

“ The total value of the exports of jewellery and precious stones from Ceylon to Great Britain in the following five years has been as follows, but we are not able to state the precise amount of pearls comprised in these returns :

1839 .... £4458	1842 .... £2889
1840 ..... 6177	1843 ..... 3919
1841 ..... 2071	

“ Some valuable gems are found in Ceylon ; among those the ruby and cat-eye are the best ; topaz, sapphire, and crystal are also obtained. Iron is diffused over the greater part of the island ; black oxide of manganese is found ; and plumbago (carbonate of iron) is obtained in considerable quantity, and exported. Weaving gives employment to many persons. The articles made are handkerchiefs, table-cloths, napkins, towels, sail-cloth, and a coarse kind of cloth used for their dress by the natives. There are also many oil-mills in operation, chiefly for pressing the cocoa-nut kernels. The island contains extensive forests, in which, besides the more ordinary descriptions of timber, the growth of those latitudes, there is a great variety and profusion of beautiful woods, well adapted for the use of the cabinet-maker.

“ Among the animals of Ceylon, most of those found on the opposite continent are native to the island. Elephants are numerous, and sometimes do great injury to the

growing crops Under the kings of Candy these animals were trained to perform the office of public executioners

"The trade of the United Kingdom with Ceylon is not distinguished in the custom-house accounts from that to the continent of India A trade is carried on with Bengal, to which presidency it exports betel-nuts, chank shells, cordage cocoa cuts, and various minor articles, while it imports from that quarter cotton piece goods sugar, rice, wheat, and gunny bags"

*Post and Mail Communication*—"Ceylon is at the present moment, the centre of operations for the mails from China, the Straits' settlements, Bengal, and Madras, as well as the French, Spanish, and Dutch possessions at Pondicherry, Java, Manila, and elsewhere Even these communications are still but in embryo as regards future development, and when in addition to them, regular postal intercourse shall have been opened by means of steam with our Australian colonies and probably with Mauritius from all of which lines must converge at Ceylon, the future importance of this island cannot fail to be apparent And concurrently with this, will arise the grave question of the sufficiency accessibility, and safety of the present station at Point de Galle as compared with the unrivalled harbour and facilities of Trincomalee The superiority of accommodation at the latter for ships of war, its convenience for expediting communications between the Admiralty and the naval force in the eastern seas, and its fine commercial situation fronting the Bay of Bengal, and presenting a centre whence all the lines of postal communication must diverge, mark it strongly as the point towards which attention must ultimately be directed with a view to these objects in preference to the imperfect harbour of Point de Galle For packets on their way to China, Trincomalee would be an addition of twenty-four hours' steaming, but for the mails to Bengal and Madras, there would be a correspondent advance on their voyage in that direction

"As regards the mercantile interests of the colony there can be little doubt that Trincomalee would eventually present advantages to the commerce and trade of the island, infinitely superior to Colombo, where there is no harbour, and only an open roadstead with imperfect holding-ground, which is any thing but favourably regarded by shipping, both from its inconvenience and insecurity The producing districts of the interior lie nearly midway between the two places and the few miles of additional road to be traversed from Kandy to Trincomalee will be more than compensated by avoiding the three formidable mountain passes between Kandy and Colombo

"The principal obstacle would naturally be the reluctance of the merchants to abandon their present buildings at Colombo and transfer their establishments to Trincomalee But there can be little doubt that the only consideration which ever influenced the Dutch to establish the seat of government at Colombo in preference to Trincomalee, when they had their choice of both, was that the cinnamon plantations from which they chiefly derived their revenue, lie in the vicinity of Colombo

"There is daily communication (Sundays excepted) between Colombo and all parts of the island and, with one or two exceptions, between all the main stations one with the other This communication is carried on from Colombo to Kandy in the central province, and from Colombo to Point de Galle in the southern, each a distance of seventy two miles, which is travelled in 10½ hours by means of mail coaches established by private parties, and under contract to government for the conveyance of the mails From Kandy the mails are conveyed by foot-messengers to Trincomalee and all other places in the eastern province, as soon after their being received as possible From Galle, a private coach, under contract with government, conveys the mails to Matura, twenty eight miles further in the southern province, whence they are taken by foot-messengers to Tangalle and Hambantotte, which latter place is the furthest limit of the southern province where a government officer is stationed

"The distance from Colombo to the utmost northern limit of Jaffna is 270 miles and between those two places are the intermediate stations of Negombo, Chilaw Putlam (the chief town of the north western province), and Manaar Excepting the government des-patches, the correspondence between the western, and north-western, and northern provinces, is unimportant, especially when it is compared with that which daily



takes place between Colombo and the Kandyan provinces. The obstructions caused by wild animals, deep streams, and absence of local European superintendence in parts of the northern and north-western provinces are so great, that it is matter of surprise that the communication is so extremely regularly maintained, as it is very seldom that a day's mail is due between the two places. The communication, however, is by no means rapid; it occupies four days.

"The mails between Ceylon and the continent of India by land, are conveyed for eight months of the year through Jaffna and Point Pedro, whence they are taken in catamarans to Point Calymare on the opposite coast; and for the other four months through Mannar and Talamanar, whence they are passed over in hired boats to Ramiseram. By these means letters from Colombo may reach Madras in eight to ten days, and Calcutta and Bombay in seventeen to twenty days; the variation depending on the nature of the weather at the two extremities of this island. Letters taken by the steamers from Point de Galle reach Madras in three days and Calcutta in nine; whilst those taken in the *Seaforth* steam-packet to Bombay generally arrive in less than six days.

"The communication between Ceylon and the Straits of Malacca, China, Java, and Manilla, is, of course, now efficiently carried on monthly by means of the contract steamers from Point de Galle; other opportunities are very rare and uncertain. Letters are frequently received from Australia by way of Calcutta, occupying about three months in the transit; but a direct opportunity scarcely presents itself of sending letters to Australia: one hardly occurs once in a twelvemonth. From Mauritius letters arrive almost monthly by vessels coming thence to Ceylon in search of freight; but direct opportunities of sending letters thither are unrequent.

"Homeward-bound vessels take letters, at irregular periods, from Ceylon to the Cape of Good Hope and St. Helena."

*Crown Lands.*—"The crown land purchased by individuals from May, 1833, to 1843, without including lots under fifty acres, amounts to 170,080 acres. The one society issues circulars to obtain a return of the extent of estates, and the extent in bearing, which, as far as they have received answers, enables them to show that there are in bearing 2917 acres; in progress, 8125; total extent of coffee estates, 47,368 in 1843. These returns are understood not to be complete. Very many applications have been lately made for land about Negombo for sugar cultivation; whether advisedly or not, remains to be seen. Experience has shown that coffee planting is a certainty. As to whether the soil in the maritime provinces of Ceylon will grow canes for such a length of time as will be equally profitable, is a problem which time alone can solve. Even if land gives two tons of sugar per acre, deduct duty and expenses, and coffee land affording only ten hundred weight (sold even so low as 3*l.* 10*s.*) per acre, will be a more certain speculation."

"Twelve years ago Ceylon was not known in England, and even in London but in the light of a valuable military key to India. The only part of Ceylon that seemed to draw forth any admiration was Trincomalee, on account solely of its harbour being the finest in the Eastern hemisphere, and being the only place of refuge for weather-driven vessels from the Bay of Bengal and the Coromandel coast, but chiefly, we believe, as a valuable naval station. After this, a new era began to dawn on Ceylon; the resources of the island began to attract the attention of the wealthy capitalists of England. From that day to this thousands upon thousands of pounds have been expended on the soil of both the maritime and interior provinces of the island; and, although it is natural there should be some failures, still it is surprising in how many a hundred-fold the money laid out has been returned. Coffee is the staple production at present of Ceylon, and not a few have already (1844) made fortunes, and others are in the fair way. Sugar has been tried, but we are sorry to add that the spirited growers have not hitherto succeeded as they had anticipated. True, one or two have succeeded, but it is only those who have. Want of the proper experience, we firmly think, has been the principal cause of the unsuccessful results. We have very little doubt on our mind as to this island being ultimately a sugar colony, and that to a greater extent than many people are inclined to believe. Ceylon is yet in its infancy. Hundreds

\* A correspondent, who had vacated the sugar estates, Negombo, writes:—"I never saw any thing in Java superior to the canes here, and not often any thing to equal them; I will stake my reputation as a sugar-planter, that the canes will last as long as any in any other part of the world."

upon hundreds of acres of suitable land, which have never yet been explored, will be in a few years more all under cultivation. Ceylon is favourably situated with regard to England, the climate of two-thirds of the island, we may safely say, is not ill adapted for the European constitution. The natives of the country are well disposed towards the Europeans.

"Ceylon is emphatically the half way house between England and China. When the resources of that vast empire become fairly open to British enterprise and capital, it will be hard to say of what real importance this island may be to England. It is invaluable and will always be so as a coaling station to the steamers outwards and homewards bound. It is approachable in as short, if not a shorter time from England than Bombay is, and who can foresee what a valuable acquisition Ceylon must then prove to Britain, if it ever happen to be made the centre of all her operations, in her wide and far-spreading Eastern dominions, which is far from being an unlikely case if the Company's charter is even renewed in 1854, and, consequently the government of the day take the affairs of India into their own hands. Ceylon, in that case, then would be the focus from whence would issue 'through steam the right arm of England,' all the home instructions destined for our princely dominions in India, our territory in China, our possessions in its seas, as also those of the Indian Ocean, Australia, Van Diemen's Land, and New Zealand, with our various islands in the South Pacific."—*Ceylon Herald*

*Planting in the North*—"The cultivation of tobacco, with which the planters began, is almost totally abandoned. Experiments are being made in regard to exotics, and Maryland is expected to succeed. The tobacco indigenous to the country is rather coarse and strong for cigars. Cotton and cocoa-nuts will, I think succeed. The planters have succeeded in raising almost every valuable variety of cottons. Sea-Island, Upland Georgia, Bourbon, Pernambuco, Nankeen cotton, &c. Of all these the Bourbon is the favourite and the most extensively cultivated. It will, I think ultimately be the staple cotton, not of Ceylon only, but of continental India. The cotton estates now look most luxuriant, presenting the appearance of extensive groves of black currant bushes. The trees are almost constantly putting forth *boles* they are at present covered with flowers, which will be beaten off by the heavy rains. The proper gathering seasons are February, March, August, and September. Such is the effect of our fine climate, that every variety of cotton is here perennial. The cotton trees may be expected to last five or six years, until the cocoa-nuts placed amongst them come into bearing, by which time it is hoped all expenses will be more than paid.\* Cocoa-nuts possess a local value of from 1s to 1s 6d per annum for the produce of a tree in full bearing. Brittonia is the place for cocoa-nuts. Fine soil and fresh water within three feet of the surface, the soil here is a perfect paradox. Generally speaking, it is most unpromising and sterile in appearance, but, with a little manure, and plenty of irrigation, wonders of vegetation are produced from it. Dr Divy has said, that the richest soil taken from the mountain forests of the interior contains no more than 2½ per cent of vegetable matter. Here we have no forest, only low jungle, and I do not suppose our richest soil contains one-half per cent of vegetable matter. The most general is calcareous sand in some places clayey in others, as at Point Pedro highly ferruginous, presenting the most extraordinary contrast to the snow-white coral limestone on which it rests. There can be little doubt that the secrets of the fertility of the soil of the Jaffna Peninsula lies in the presence of muriate of lime."

*Slavery*—"In 1816, the greater number of proprietors of slaves in the maritime provinces made a voluntary offer to the crown of the children who should be born of their slaves after the 12th day of August, 1816. The offer was accepted, and, in 1816, an ordinance was passed, securing their perfect freedom, and providing for their support. At the same time it was enacted, that all proprietors of slaves in the maritime provinces should have them registered in the district courts, under forfeiture of all right or claim.

\* It appears that grapes of delicious flavour ripen in abundance at Jaffna. Alluding to wild animals, the following appears in a recent Ceylon paper—"A very proper wholesale war has been waged with the monarchs of the forest by native hunters. No less than 150 elephants were lately killed in the district of Wannay a reward of 10s being paid for every elephant destroyed. A large number of them were killed also in the district of Mannar lately. In the district of Patchelappally, the elephant hunters are paid 3l 10s for every animal government paying 15s only and the rest contributed by the planters. The tails of the elephants (in proof of the animals having been actually killed) are sent to the Cutcherry at Jaffna, where they are cut into pieces and buried!"—*Ceylon Herald*.

to them; and, in the event of omitting to comply with the provisions of the act, they were declared to be absolutely free. All joint property in slaves was also declared to be illegal, and every slave was to be registered by one proprietor. In Jaffnapatam and Trincomalee, where such a tenure chiefly prevails, distinct provisions were made for settling such claims to slaves. It was enacted, that no claim to a slave less than one sixteenth could be recognised! In order to fix to whom they belonged, he or she was to be put up to auction, and the proceeds divided amongst the claimants, while, of course, the slave went to the highest bidder. By the act of 1837, the registration system was extended to the Kandian Provinces. Every birth or change of proprietorship had to be registered, or the owner forfeited his claim to be considered such, and the slave was declared to be absolutely and *ipso facto* free. The first registration was to be made before the 1st of July, 1838, and the certificate of registry had to be renewed triennially. The judges were directed to take extraordinary precautions that no addition to the register should be allowed after that date, and of course until the lapse of the first three years, it could not be ascertained what the decrease amounted to. We have stated that at the first examination, in 1841, instead of there being 1287 on the record, there were only 379 in the whole of the Kandian Provinces; and, as we proved at some length, there is not another in the whole of the island! The registration system was very much neglected all over the maritime provinces, particularly in the northern division, where the proprietors had not resigned their rights, and had neglected altogether to register. In order, however, that no objection might be taken to the authorities acting on the old ordinance of 1818, the ordinance No. 7 of 1842 was passed, making registration imperative; in fact, re-enacting the provisions of the old act, with this clause, that if any slave was not registered before the 1st of January, 1843, absolute freedom was the consequence. Not a single slave was registered; and, on the morning of the 1st of January, 1843, the sun rose on nearly 23,500 freemen, who were nominally slaves the day before.\*

The resources of this colony, if its affairs shall be properly managed, would be of the greatest productive value; hitherto the imports value, for a long period, have exceeded those of exports, and from the absurd and unjust export duty on cinnamon the growers of that spice have been nearly, if not, ruined. The ports of Ceylon should, like Singapore, be made *free ports*.

THE Number and Tonnage of Ships entering the Ports of Ceylon in 1828, may give an idea of the maritime trade which has since increased.

C O U N T R I E S.	Ships.	
	number.	tonnage.
Great Britain.....	23	8,765
India and China.....	1137	41,689
Foreign States.....	154	9,531
<b>TOTAL.....</b>	<b>1314</b>	<b>60,975</b>

NOTE.—Manned by 14,794 men.

IMPORTS and EXPORTS of Ceylon.

IMPORTS, 1828.		Value.	EXPORTS, 1828.		Value.
		£		lbs.	£
Cotton Cloths, Indian.....	137,941	138,833	Cinnamon, first sort.....	96,000	82,343
"    British.....	6,400		"    second sort.....	238,000	87,563
Grain, Indian.....	96,111	108,820	"    third sort.....	180,000	76,437
"    Various.....	12,128		<b>TOTAL.....</b>	<b>500,000</b>	<b>138,343</b>
<b>TOTAL Grain and Cloths.....</b>	<b>346,580</b>	346,301	Exports subject to Duty.....		59,927
Other articles.....	99,709		Ditto not ditto.....		39,108
<b>TOTAL.....</b>	<b>346,301</b>		Add deficient in value of Cinnamon.....		42,000
			<b>TOTAL.....</b>		<b>141,035</b>
1831.			1831		
From Great Britain, valued in sterling money.....	48,777		To Great Britain, valued in sterling money.....		168,076
From British Colonies ditto.....	27,476		To British Colonies ditto.....		60,675
From Foreign States ditto.....	34,228		To Foreign States ditto.....		1,326
<b>TOTAL value of Imports ditto.....</b>	<b>349,481</b>		<b>TOTAL value of Exports ditto.....</b>		<b>250,077</b>

† This quantity was sold, the value given exported is £180,000.

\* We have examined various documents respecting the abolition of slavery in Ceylon, and we are bound to attribute a great share of the merit of that successful measure to Mr. Anstruther, the then secretary of that colony.

## IMPORTS and Shipping of Ceylon for the following Years.

YEARS.	Great Britain.			North America.			United States.			Foreign States.			Totals.			
	Value.	No.	Tons.	Value.	No.	Tons.	Value.	No.	Tons.	Value.	No.	Tons.	Value.	No.	Tons.	Men.
1828	£ 50,984	23	8754	£ 1137	41	626	£ ..	..	..	£ 21,431	134	9,631	£ 323,320	1844	66,070	14,794
1829	50,590	17	4657	938	56	826	..	..	..	28,256	156	8,229	340,301	1137	60,919	13,061
1830	40,777	11	3911	878	60	157	..	..	..	34,478	199	12,992	340,352	1038	77,030	14,266
1831	38,559	7	2647	1044	48	339	..	..	..	27,278	171	12,847	262,988	1222	63,833	11,578
1832	47,792	13	4603	1160	47	591	1975	1	279	38,742	211	13,303	351,234	1411	56,096	13,329
1833	60,812	21	7083	1168	54	554	875	1	279	39,373	113	6,734	320,332	1227	60,168	18,009
1834	71,075	13	4015	1185	63	824	150	1	274	31,660	237	11,051	372,725	1496	60,897	14,429
1835	69,997	16	4999	1209	55	330	103	2	454	30,098	180	13,377	374,076	1404	13,130	17,012
1836	58,237	30	6959	1163	55	010	..	..	..	34,437	148	8,363	411,169	1331	71,139	13,309

NOTE.—Imports from all other places, \* value, 1828, 109,018; 1829, 272,651; 1830, 271,572; 1831, 227,150; 1832, 263,372; 1833, 229,932; 1834, 269,833; 1835, 231,844; 1836, 253,472.

\* Under the head of "Other Places," the continent of India is principally alluded to, and under that of "Foreign States," the French settlements in India, the ports of China, the island of Madras, and the dominions of the Indian princes, in alliance with the East India Company are included.

## EXPORTS and Shipping of Ceylon.

YEARS.	Great Britain.			North America.			United States.			Foreign States.			TOTAL.			
	Value.	No.	Tons.	Value.	No.	Tons.	Value.	No.	Tons.	Value.	No.	Tons.	Value.	No.	Tons.	Men.
1828	£ 140,561	9	3531	£ 1048	41	890	£ ..	..	..	£ 1,631	38	3185	£ 215,373	1005	48,896	14,327
1829	158,558	13	4869	1098	56	938	..	..	..	1,330	36	2561	280,145	1147	64,820	13,060
1830	168,576	11	3769	1176	63	494	..	..	..	1,376	47	2624	260,798	1231	69,285	12,743
1831	30,903	7	2329	1040	53	149	..	..	..	749	28	2256	191,146	1075	37,534	18,128
1832	59,526	14	4768	1259	60	732	2639	1	279	559	31	1338	156,094	1305	72,317	13,734
1833	49,403	19	5286	1184	37	260	1702	1	279	1,264	69	2148	196,478	1202	65,293	13,799
1834	76,068	10	3923	1189	65	657	..	..	..	6,384	41	3803	143,883	1259	71,543	13,769
1835	79,008	18	3677	1208	63	431	400	1	274	15,293	54	3868	156,941	1211	74,076	18,358
1836	228,601	26	7856	1100	60	238	8188	1	274	8,890	73	4035	308,704	1290	95,463	21,564

NOTE.—To other places, value, 1828, 61,182; 1829, 88,562; 1830, 60,673; 1831, 60,653; 1832, 54,102; 1833, 85,103; 1834, 68,404; 1835, 63,632; 1836, 66,122.

## IMPORTS and Exports from 1839 to 1843, with the Value of leading Exports.

YEARS.	Imports.		Exports.		Aracca Nuts.		Cinnamon.		Coffee.		Cocoa-nut Oil.	
	£	Men.	£	Men.	£	Men.	£	Men.	£	Men.	£	Men.
1839	601,970	..	375,608	..	29,556	..	84,016	..	130,597	..	24,597	..
1840	738,512	..	409,947	..	93,007	..	39,383	..	214,529	..	32,463	..
1841	743,321	..	398,663	..	22,478	..	24,857	..	176,945	..	24,042	..
1842	831,311	..	458,143	..	29,223	..	16,207	..	269,763	..	34,248	..
1843	..	..	422,424	..	37,028	..	66,270	..	192,891	..	43,714	..

## STATEMENT of Articles Exported in 1845, from the Island of Ceylon, producing more than 100l. Duty.

NAME OF ARTICLE EXPORTED.	PROVINCE OF CEYLON.			PROVINCE OF COLUMBO.			PROVINCE OF GALLE.			ALL OTHER PORTS AND PLACES.		
	Value.	Amount of Duty.	£ s. d.	Value.	Amount of Duty.	£ s. d.	Value.	Amount of Duty.	£ s. d.	Value.	Amount of Duty.	£ s. d.
Aracca	£ 5,641	9 11	141 1 0	..	..	..	..	..	..	..	..	..
Aracca-nuts	31,838	1 8	787 19 4	23,325	6 3	596 10 11	..	..	..	..	..	..
Cinnamon	40,821	2 0	20,310 11 0	40,827	12 6	39,314 16 0	..	..	..	..	..	..
Coffee	368,359	11 3	9,081 16 8	358,592	19 8	8,909 2 7	7340	5 7	181 0 6	..	..	..
Cocoa-nuts	6,117	12 8	150 16 0	..	..	..	..	..	..	..	..	..
Coar Popo	8,955	5 1	216 10 3	..	..	..	..	..	..	..	..	..
Oil, cocoa-nut	13,546	1 10	298 11 0	13,574	3 4	332 0 0	..	..	..	..	..	..
Tobacco and cigars	16,845	17 8	420 14 4	..	..	..	..	..	..	17,197	4 10	490 14 5
Wood	14,928	0 0	337 11 2	..	..	..	..	..	..	4,428	10 3	140 16 2
Total	508,091	10 3	21,298 7 1	433,729	11 8	30,142 10 1	7,240	5 7	141 0 5	21,615	16 2	540 9 0

STATEMENT of Articles Imported into the Island of Ceylon in 1845 producing more than 100*l* Duty

NAME OF ARTICLE IMPORTED	PROVINCE OF CEYLON		PROVINCE OF COLOMBO		PROVINCE OF CALLE		ALL OTHER PORTS AND PLACES	
	Value	Amount of Duty	Value	Amount of Duty	Value	Amount of Duty	Value	Amount of Duty
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
Aspar 1 weeing	3 3 0 11	139 6 11	2,370 4 5	16 11 11 1/2				
At 1 An								
C n and postle	3 1 10 0	164 0 7	3 030 10 0	1 0 0 1 1/2				
Cu n d r	1 5 1 0	399 10 7	1 33 8 7	398 7 1 1/2				
C n d r and preserres	4 32 8	204 14 11	2 250 11 1/2	114 12 0 1/2				
C n d r	231 4 10	12,422 4 3	216 038 17 5	11 340 7 5	7 730 4 0	484 17 5	11 506 13 1 1/2	604 7 0
C n t ad	3 11 14 0	173 16 4						
C n r t d	121 6 5	2 3 6 1	3 408 18 7	182 14 0				
C n s 11 rdware	11 75 2 1	6 0 11 1	11 051 0 5	251 11 1/2				
l theus	7 32 0 0	593 14 6	14 4 2	289 9 2	1 543 3 1	134 4 0 1/2		
F h	16 10 8 10	1 4 5 11 4	9 241 8 8	831 3 1 1/2	0 029 11 0	607 13 7 1/2		
F n r ture	2 1 1 2	1 6 12 8	1 901 14 0	164 7 5 1/2				
C n s	4 0 1 15 0	244 15 0	3 370 8 11	160 3 7				
C n s r m	40 1 8	9 4 11 3	5 581 12 0	8 2 8 1				
p 115	10 0 0 7	11 803 11 5	8 229 16 11	1 280 11 3 1/2	4 016 9 0 1/2		0 952 7 8 1/2	9 500 4 4
p as	1 81 0 11	267 7 4	1 146 18 0	45 1 3 1/2				
s e	380 0 12 14 4	62 208 0 5	263 588 0 5	43 943 0 8	37 881 4 10	0 813 13 4 1/2	8 035 3 2 1/2	13 012 3 1 1/2
sl at	0 0 0 8	0 12 17 6	5 481 17 0	0 1 15 7 1/2				
C n s and twi e	0 7 1 11	4 1 12 3	4 123 4 11	1 124 2 8 1/2				
H b e shary and millers	0 54 1 5	1 37 3 11	21 299 7 5	1 931 17 0	1 412 6 1	102 8 0 1/2		
H l t liquor	17 1 14 10	1 132 14 11	15 503 13 11	1 106 2 4 1/2				
Manur	1 410 0 8	137 1	1 177 6 5	17 14 4 1/2				
M n s t o r s	2 54 14 4	142 5 5	2 27 14 9	134 2 4 1/2				
Med c nes	3 4 9 0	2 10 4	2 337 11 10	173 17 0				
M t l wrought and unwrought —								
Iron	0 50 15 1	3 40 4 0	4 3 5 11 9	241 7 8 1/2				
Copper	7 10 1 3	3 92 16 4	6 111 18 7	3 2 1 1 1/2				
Iron	8 42 19 4	5 29 1 0	5 349 1 2	300 12 11				
P l t e and Jewellery	2 35 8 11	143 19 8						
O l n a sterc	3 26 7 1	189 3 11	3 117 4 0	175 17 8 1/2				
l pper and spices	1 791 4 5	121 12 11						
P r o i n s	1 297 10 10	110 11 2						
S addity and h n ess	6 059 7 10	304 9 2	4 447 4 11	226 3 4				
S l f p r o s 1 e	2 115 11 8	176 9 4	2 298 8 3	165 12 0				
S e d s	2 075 2 7	142 10 11						
S l l t tortoise	1 01 4 0	181 0 6			1 397 4 0	138 14 6		
S l t p o d s	6 047 10 0	463 16 10	2 418 12 0	149 8 2 1/2	4 453 5 9	2 58 15 11		
S p r n s andy	5 106 7 0	2 503 10 2	5 151 18 0	2 897 10 1 1/2	281 16 0	168 11 4 1/2		
l t	1 818 9 0	1 024 4 0	1 499 3 0	818 4 7				
whisk y	1 40 8 8	107 2 6	1 389 4 8	106 8 8 1/2				
S al t o n e r	2 868 7 11	1 17 4	2 958 10 6	163 5 8 1/2				
S g a r s d t	4 4 15 10	223 16 5	3 26 14 0	163 5 4 1/2				
T e	3 4 4 6 5	441 14 3	2 791 19 0	798 17 0				
T o t a c e o and cigars	5 101 3 11	4 78 0 9	2 144 14 10	15 10 6 1/2	2 546 4 8	240 4 2	17 187 4 10 1/2	459 14 5 1/2
U n t s l l a	2 047 11 7	169 12 8	2 144 14 8	138 8 7 1/2				
W n e s F r n h	5 008 0 0	523 4 8	5 471 10 0	404 14 8				
----- M a d e r a	4 4 0 3 0	512 17 0	4 412 5 0	205 11 0				
----- P o r t u g a l	2 226 17 6	3 9 11 6	3 063 17 6	345 16 10				
----- S p a n i s h	12 771 0 9	1 694 5 4	13 656 2 6	16 5 7 0				
----- F r o e n c h	1 485 5 0	301 15 0	1 485 5 0	201 15 0				
W o o l e n s	2 655 18 6	137 14 6	2 602 13 8	134 12 0 1/2				
TOTAL	526 233 7 4	110 028 7 8	674 840 14 6	74 922 9 6	67 321 7 5 1/2	9 137 10 9 1/2	164 691 8 11 1/2	23 532 6 11 1/2

## SUMMARY

NAMES OF PORTS	IMPORTS 1945						
	Value of Imports producing more than 1000 <sup>00</sup> Duty	Amount of the Duty	Value of Imports producing less than 1000 <sup>00</sup> Duty	Amount of the Duty	Value of Articles imported Duty Free	TOTAL VALUE of all Imports	TOTAL Amount of Duty
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ r d.
<b>WESTERN PROVINCE</b>							
Colombo	674 610 14 8	74 922 9 0	34 559 5 0	2 121 0 6 <sup>1</sup>	479 618 14 11	155,418 14 7	7,053 10 0 <sup>1</sup>
Puttara	9 755 18 10	1 628 1 <sup>0</sup> 9 <sup>1</sup>	638 1 7	55 4 2 <sup>1</sup>		10 375 0 5	1 678 1 0
Caltura	8 128 12 3 <sup>1</sup>	1,354 16 6	472 17 1 <sup>1</sup>	44 0 5 <sup>1</sup>		8 61 9 4	1 899 11 11 <sup>1</sup>
Barberya	14 803 15 4	2,467 5 4	237 2 4	65 16 4		1 329 18 8	2 14 2 8
Negombo	13,204 5 1 <sup>1</sup>	2 213 4 6 <sup>1</sup>	764 12 3	36 15 4		14 069 17 4 <sup>1</sup>	2 270 0 0 <sup>1</sup>
Calpenny	51 6 0 6	862 13 4	1 005 8 8	112 15 7		6 181 7 2	9 8 11
<b>SOUTHERN PROVINCE</b>							
Galle	67 221 7 0 <sup>1</sup>	9 137 10 9 <sup>1</sup>	11 953 15 1 <sup>1</sup>	934 4 1		72 225 2 7 <sup>1</sup>	1 071 14 10 <sup>1</sup>
Balleptiyamodra	4,501 11 0	779 10 11	285 18 10	29 5 0 <sup>1</sup>		5 187 0 10	729 16 2 <sup>1</sup>
Dodanduwa	3 15 1 6	610 10 11	49 16 0	16 5 11		4 808 0 6	630 2 10
Bellegam	1 738 8 0	289 5 10	49 16 0	4 0 2		1 785 8 0	253 10 9
Gandurath	797 15 5	122 18 10 <sup>1</sup>	27 19 11	3 10 8 <sup>1</sup>		625 13 4	136 13 7 <sup>1</sup>
<b>NORTHERN PROVINCE</b>							
Jaffna	47 380 15 10 <sup>1</sup>	6 911 2 6 <sup>1</sup>	7 024 11 3	484 8 4 <sup>1</sup>	3 5 8 3 <sup>1</sup>	57 880 16 2 <sup>1</sup>	7 295 10 11
Mannar	3 45 8 0	602 10 7	2,613 6 3 <sup>1</sup>	-10 13 7	-4,809 5 0	31 127 14 2 <sup>1</sup>	813 4 1
Point Pedro	16,456 17 5	2 747 14 10 <sup>1</sup>	2 481 0 7 <sup>1</sup>	164 11 3	642 18 0	13 263 2 0 <sup>1</sup>	2 918 6 2 <sup>1</sup>
<b>EASTERN PROVINCE</b>							
Trincomalee	15,716 5 1 <sup>1</sup>	2 482 12 9	3,268 5 6	295 6 5	38 8 6	59 031 12 1 <sup>1</sup>	9,797 10 5
Batticaloa	632 17 9	154 3 8	1 200 6 6	99 14 4 <sup>1</sup>		2 133 4 3	533 17 0 <sup>1</sup>
<b>TOTAL</b>	<b>880,596 6 2</b>	<b>107 180 1 5<sup>1</sup></b>	<b>67 021 9 6<sup>1</sup></b>	<b>4 660 15 2</b>	<b>508 163 0 8<sup>1</sup></b>	<b>1 464 787 6 5<sup>1</sup></b>	<b>111,861 12 11<sup>1</sup></b>

NAMES OF PORTS	EXPORTS 1945						
	Value of Exports producing more than 1000 <sup>00</sup> Duty	Amount of the Duty	Value of Exports producing less than 1000 <sup>00</sup> Duty	Amount of the Duty	Value of Imports Re-exported and of Articles from the Warehouse	TOTAL VALUE of all Exports	TOTAL Amount of Duty
	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d	£ s d
<b>WESTERN PROVINCE</b>							
Colombo	433 729 11 8	20 142 10 1	15,709 12 0	421 12 5 <sup>1</sup>	41 887 19 11	491 0 <sup>1</sup> 16 7	30 564 2 6 <sup>1</sup>
Puttara			1 459 28 6	28 9 10 <sup>1</sup>		1 459 28 6	28 9 10 <sup>1</sup>
Caltura			2,531 8 10	63 8 2 <sup>1</sup>		2,531 8 10	63 8 2 <sup>1</sup>
Barberya			4 107 17 4	108 14 10 <sup>1</sup>		4 107 17 4	102 14 10 <sup>1</sup>
Negombo			2,014 17 4 <sup>1</sup>	50 8 10 <sup>1</sup>		2 014 17 4 <sup>1</sup>	60 8 10 <sup>1</sup>
Calpenny			2 192 5 3	84 17 9		2 192 5 3	84 17 9
<b>SOUTHERN PROVINCE</b>							
Galle	7 240 8 7	181 0 5 <sup>1</sup>	18,422 17 0	560 10 6		25 563 2 7	741 10 11 <sup>1</sup>
Balleptiyamodra			926 3 3	22 4 11		926 3 3	22 4 11
Dodanduwa			868 4 3	21 14 4 <sup>1</sup>		868 4 3	21 14 4 <sup>1</sup>
Bellegam			1 849 16 4	40 7 6		1 849 16 4	45 7 6
Gandurath			1 117 18 7	27 19 5		1 117 18 7	27 19 5
<b>NORTHERN PROVINCE</b>							
Jaffna	17 187 4 10 <sup>1</sup>	429 14 9 <sup>1</sup>	4 608 17 7	115 13 8 <sup>1</sup>	2 015 4 5	23,801 7 2 <sup>1</sup>	545 8 2 <sup>1</sup>
Mannar			10 12 11	18 10 10	830 0 0	1 570 12 11	18 10 10
Point Pedro	4 428 10 3 <sup>1</sup>	110 15 3 <sup>1</sup>	3 892 10 2 <sup>1</sup>	97 10 5 <sup>1</sup>	67 19 0	8 389 19 7	208 5 9
<b>EASTERN PROVINCE</b>							
Trincomalee			2 157 17 6 <sup>1</sup>	62 19 11 <sup>1</sup>	3,265 12 5 <sup>1</sup>	4,383 10 2	53 19 11 <sup>1</sup>
Batticaloa			107 15 9	2 14 3	2 16 0	110 11 9	2 14 3
<b>TOTAL</b>	<b>467 285 12 5<sup>1</sup></b>	<b>30,864 0 2<sup>1</sup></b>	<b>62 713 8 1<sup>1</sup></b>	<b>1 097 17 2<sup>1</sup></b>	<b>46 09 5 1<sup>1</sup></b>	<b>572 008 5 8</b>	<b>32 561 17 6</b>

<sup>1</sup> Expenses of the Customs' Establishment — Fixed salaries, 7728<sup>1</sup> 14<sup>0</sup> 0<sup>1</sup>, unfixed salaries, 6281 0<sup>1</sup> 4<sup>1</sup> and incidental expenses, 9004 0<sup>1</sup> 4<sup>1</sup> Total 9,256<sup>1</sup> 14<sup>8</sup> 8<sup>1</sup> d.

BRITISH SETTLEMENTS IN THE STRAITS OF MALACCA—MOLACCA, PULO PENANG,  
PROVINCE WELLESLEY, AND SINGAPORE

THE British possessions in the Straits of Malacca consist of three settlements, viz, Pulo Penang, or Pinang, or Prince of Wales Island, embracing a dependence of it, the province of Wellesley—Singapore, and Malacca. Penang and Singapore are islands, but province Wellesley and Malacca are situated on the Malayan peninsula. The settlements are separated by a long country coast, extending along the sea, in the occupation of Malay princes, all of which, with very trifling exceptions, is covered with a dense mass of forests, indented here and there by small streams and noble rivers. Singapore is in latitude 2 deg 14 min north, and Penang in latitude 5 deg 14 min north.

PULO PENANG (or Betel Nut), or PRINCE OF WALES' ISLAND, is situated in the Straits of Malacca, near the Malayan Peninsula, from which it is separated by an arm of the sea, between Lat 5 deg 15 min and 5 deg 29 min north, and Long 100 deg 25 min east. From north to south it is about sixteen miles long, and eleven broad at the northern extremity, but at the south it is in some places not more than six miles. Its area is estimated at 160 square miles. Probably two thirds of the island are mountainous, the remaining consists of valleys and plains. The former consists of two ranges, which run north and south, and are of very unequal height and length, the highest about 2800 feet above the sea. The west range stretches from one end to the other of the island, but has a low division across it, near to its centre, the east or lesser range extends from nearly opposite to the low part of the west range, from which it extends southward to near the centre of the southern part of the west range. The low parts of the island consist of several distinct parts, the greater number and chief of which are situated on the east side of the mountains. The only road of communication between the plains on the east and west is through the low parts across the west range, known as Captain Low's route. When first known to Europeans, Penang appeared uninhabited and covered with forests.

The mountains and the smaller hills are composed of fine gray granite, excepting some heights near the coast formed of laterite, as is also Saddle Island on the south west angle of Penang. A tin mine was worked some years ago, and it is said valuable minerals exist in the mountains.

The soil is generally a light dark mould mixed with gravelly clay, in some parts there is a rich vegetable soil, formed by the decayed leaves of the forests, with which the island had for ages been covered, the coast soil is light sandy, but rather fertile.

*Climate*—January and February constitute the dry and hot seasons, November and December the rainy, however, the island is seldom long without refreshing showers. The thermometer on Flag-staff Hill (2248 feet high) never rises beyond 78 deg Fah (seldom to 74 deg) and falls to 66 deg, on the plain it ranges from 76 deg to 90 deg. Penang is considered remarkably healthy.

In 1785, Penang was granted to Francis Light, captain of a country ship, by the King of Queda, as a marriage portion with his daughter. Light transferred his grant to the East India Company, and was by them appointed first governor of the island. From the appearance of the interior, and the number of tombs discovered there soon after the colony was formed, the tradition of its having been formerly inhabited, is no doubt true, when taken possession of there were only a few miserable fishermen living along the sea coast. When placed under proper authority, it was resorted to by British, Dutch, Portuguese, Americans, Malays, Arabs, Parsees, Chinese, Chuhahs, Burmans, Siamese, Javanese, &c, &c

In 1805, the colony having acquired importance, the Company determined to constitute it a government only subordinate to the Governor general of India. The enormous expense incurred by the establishment, led, in 1830, to its being reduced to a residency, under the Bengal government. There is a resident (a governor nominally) over the three settlements, and a deputy resident, or resident counsellor, at each place. There is a court of judicature, and a recorder, for the whole, consequently the judge must go on circuit at stated times, to each settlement. The population of Penang, according to the last census, ending 1833, amounted to 40,322 souls, and on the opposite shore, or Wellesley province, to 45,953.

When the Company's Establishment was formed at Penang in 1786, the only inhabitants were a few miserable fishermen on the sea coast. In consequence of the disturbances in the Malayan principalities, and the encouragement given to settlers by the East India Company, a native population of various descriptions arose. The population of the settlement has been stated as follows —

YEARS	Population	YEARS	Population
	number		number
1821	25 07	1826	55,116
1822	31 07	1827	57 06
1824	2 060	1828	60 153

The following official return from the East India House, shows the races of Penang —



CENSUS of the Population of Penang, or Prince of Wales' Island, Province Wellesley, and adjacent Isles, up to the 31st of December, 1828.

DISTRICTS.	Malay and Bugis.		Achinese.	Battak.	Chinese.	Chulha.	Bengalia.	Buruse Siamce.	Araba.	American.	Parsee.	Native Christians.		Confess.	TOTAL.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.		
<b>PENANG.</b>															
George Town.....	3,274	86	399	2,987	3,713	295	57	118	17	19	10	656	7	12,593	
Teluk Ayer Raja.....	5,558	164	173	1,410	13,074	843	653	7	..	..	..	545	39	24,471	
Jelutang.....	2,196	34	168	1,956	727	319	72	85	..	..	..	33	18	5,318	
Chigere.....	533	6	99	479	161	1	13	5	..	..	..	9	35	1,734	
Sungei Kluang.....	2,078	103	199	1,933	89	4	7	..	..	..	..	..	..	3,119	
Western District.....	677	24	169	839	11	..	..	..	..	..	..	..	..	1,728	
Pulo Lantja, Isle.....	112	..	7	..	..	..	..	..	..	..	..	..	..	122	
Pulo Reman, Isle.....	87	..	..	..	..	..	..	..	..	..	..	..	..	97	
<b>TOTAL.....</b>	<b>13,294</b>	<b>347</b>	<b>1,180</b>	<b>8,269</b>	<b>6,075</b>	<b>1,253</b>	<b>699</b>	<b>104</b>	<b>19</b>	<b>18</b>	<b>1333</b>	<b>114</b>	<b>..</b>	<b>33,569</b>	
<b>WELLESLEY PROVINCE.</b>															
Qualla Muda.....	5,605	..	..	153	55	154	269	..	..	..	..	..	..	7,325	
Teluk Ayer Tawar.....	7,692	6	16	164	70	268	48	4	..	..	..	..	..	8,357	
Quin Frye.....	3,081	..	10	323	16	6	..	..	..	..	..	..	..	3,296	
Juru.....	1,548	..	17	59	..	6	4	..	..	..	..	..	..	1,637	
Batu Kawan.....	1,248	..	38	520	27	9	..	..	..	..	..	..	..	1,838	
<b>TOTAL.....</b>	<b>23,409</b>	<b>351</b>	<b>1291</b>	<b>10,546</b>	<b>6270</b>	<b>1,090</b>	<b>1,117</b>	<b>158</b>	<b>19</b>	<b>19</b>	<b>1333</b>	<b>114</b>	<b>..</b>	<b>27,599</b>	

European (40) and Native Military and Followers (1100), and convicts (1800), about..... 3,500  
 Europeans, and their descendants, about..... 500  
 Miscellaneous of various classification..... 1,000

General Total..... 60,153

The present population is estimated at not less than..... 100,000

The civil establishment of the British Straits' settlement consists of a governor, a resident councillor at Penang, ditto ditto at Singapore, ditto ditto at Malacca; three other councillors are usually on furlough, and an assistant to the resident at Penang. In the Recorder's Court there are the recorder, registrar, sheriff, deputy-sheriff at Penang, ditto at Malacca, coroner at Penang, ditto at Singapore.

*Monies.*—Accounts are kept in dollars and cents, the coins chiefly in circulation being Spanish dollars and Dutch doits, or English copper of like value.

*Weights and Measures.*—The weights generally in use are those of China. The pecul, of 103 catties, equal to 133 1-3 avoirdupois. Rice from the Archipelago and salt are sold by the cojan of forty peculs; gold-dust by the bancal, weighing 832 grains troy, equal to two Spanish dollars. Grain from India, per bag of two Bengal maunds, or 164½ lbs. avoirdupois. Piece goods, &c., by the corg or score. English weights and measures are frequently adopted for European commodities.

The eastern part of Penang, owing to its moisture, is covered with rice fields. The south and west valleys, though partly cultivated for the same purpose, are chiefly laid out in pepper and spice plantations. Close along the coast there are extensive belts of cocoa-nut trees, and scattered over the island in various groups appear groves of the graceful areca palm (or penang), from which the isle takes its Malay name. The hills and low grounds, where not cultivated, are thickly covered with wood. Vegetation is splendidly luxuriant, and for miles and miles the eye rests on one dense mass of mountain forest. Besides Georgetown (the

capital), there is only one other town, *Jamestown*, situated on the sea-shore, four miles to the south of the capital, amidst a grove of palms. The hill called the "*Highlands of Scotland*" is 1428 feet above the sea, the situation and climate of which (and of the other stations), are delightful. Numerous small villages and Malay topes are scattered over the island (especially on the south side), often beautifully and romantically situated near the coast, or amidst spice groves in the vales.

The harbour of George Town is capacious, with good anchorage and well defended. It is formed by a strait about two miles wide, that separates Penang from the opposite coast of *Quedah* on the Malay peninsula. Penang was ceded to the East India Company about a century ago, and soon became a place of commercial importance, which character it maintained until the establishment of Singapore. Valuable plantations of nutmegs, cloves, and pepper, were established by Europeans, which, all but the last, still form the chief wealth of the colony. It carried on a brisk and profitable trade with the neighbouring Malayan states, Sumatra, India, and China. The ships belonging to the East India Company, on their voyage from England to China, *via* India, made Penang a calling place, where large amounts of spices, gums, tin, and other products of the Straits, were purchased or taken in exchange for cotton cloths, iron, &c., &c. The junks from China also exchanged their *ladings* of tea, rhubarb, silks, camphor, &c., for *beche-de-mer*, sea-weed, opium, and other products of Europe or of the country.

Some years afterwards, the country now known as *Province Wellesley* was annexed to Penang, and the rice-fields, which were soon cultivated, supplied Penang. Nutmeg plantations were also laid out by Europeans and Chinese settlers. But a far greater enterprise was undertaken, and now further encouraged by the late reduction in the British sugar duties, which has induced the outlay of large capital in sugar manufacturing establishments. Within the last three years, much of the jungle which overspread the whole of that district has been cleared off, and that useless thicket is now succeeded by plantations of thriving sugar canes, for the cultivation of which the immense plains of this province are found well adapted. From the drooping condition to which Penang, including *Province Wellesley*, was reduced after the establishment of Singapore, it has now greatly recovered, with every prospect of a permanent increase of prosperity. The population consists, for the greater part, of Malays and Chinese labourers. There are many *Chuliahs* or *Khngs*, native dealers from the Madras provinces, about *Georgetown*. Commercial affairs on a large scale, are in the hands of the Europeans.

Penang has been a spice island from the period nearly of its first settlement. Pepper engrossed the consideration of capitalists for many years, until the price fell so low, that the returns no more than repaid the outlay. But previous to this check, another source of gain opened, by the introduction to the island of the nutmeg and clove tree.

"The cultivation of the true nutmeg and clove tree, began nearly about the same time at Bencoolen and Penang, and the greater success which attended it at the former settlement than at the latter, was no doubt owing to the fact of Penang having been then a mercantile, rather than a cultivating community

"In 1818, the bearing nutmeg trees on the island were estimated to be 6900 Since that period, spices have been more extensively cultivated, there are now upwards of thirty spice plantations at this settlement, including Province Wellesley

"The gross annual produce from the plantations may be roughly estimated at 130,000 lbs, but young trees are yearly coming into bearing to swell this quantity, should the cultivation meet with no serious interruption it may perhaps, in time, supply the whole of the English market with spices

"Since 1831, the cultivation of the clove has rapidly advanced, an additional number of about 50,000 having been planted

"In 1829, the quantity of nutmegs retained for home consumption, was 113,273½ lbs or nearly 855 piculs The cloves entered for home consumption at present in Great Britain, amount to 60,000 lbs or about 460 piculs a year, of which a part comes from Cayenne

NUMBER of Nutmeg Trees and Plants growing on Prince of Wales Island, the Amount and Gross Value of Produce derived therefrom, and Quantity of Ground under Cultivation, drawn up in October, 1843

PLANTATIONS	Bearing Trees	Males	Not bearing	Total planted out	Plants in Nurseries	Quantity of Ground under cultivation
	number	number	number	number	number	or
Total of forty three large plantations in Penang	22,310	21,800	70,084	161,204	39,310	181½
Total of 111 small do with in the Pang lossup of Ayer Riah	792	1,000	5,109	7,401	5,000	77
31 do do do do of J. Hutong	600	1,100	3,437	5,137	1,000	64
44 do do do do of J. Lor	1,211	503	8,190	12,004	3,000	190
67 do do do do of See Ghy Kuan	1,000	00	0 00	8 000	1,000	80
104 do do do do of Bahk Pul w	2,000	2,000	8 100	15,600	3,000	190
13 plantations omitted	100	100	1,823	2,023	0	50
Total number of nutmeg trees in Prince of Wales Island	14,560	34,204	104,982	208,008	52,510	228½

TABLE—(continued)

PLANTATIONS	PRODUCE					Gross Value of Produce in 1843	Estimated Number of Nuts in 1843	Estimated Number of Nuts for 1844	
	Number of Good Nuts in 1843	Number of nuts for 1844	Total Produce in 1843	Quantity of Nuts in 1844	Quantity of Nuts at present				
	piculs	cat	dra	pic	dra				
Total of forty three large plantations in Penang	14,636,201	1,461,225	10,117,620	2	74	6,013	14	11,768,762	23,579,000
Total of 111 small do with in the Pang lossup of Ayer Riah	30,000		30,000					60,000	300,000
Total of 34 do do do of Jull reng	12,000		10,000		1,000			12,000	300,000
1 do do do of J. Lor	14,000		14,000		30			40	300,000
67 do do do of See Ghy Kuan	55,000		55,000		2,13			100,000	300,000
104 do do do of Bahk Pul w	2,111		2,111		1250			3,000	600,000
13 plantations omitted	10,000		10,000		0			20,000	50,000
Total number of nutmeg trees in Prince of Wales Island	15,110,701	1,611,225	10,277,200	246,150	71,644		14	12,458,762	25,479,000

NUMBER of Clove Trees, &amp;c, growing in Penang up to October, 1943

P L A N T A T I O N S	Bearing Trees	Not Bearing	Total planted out	Plants in Nursery	Quantity of Crop under Cultivation
	number	number	number	number	number
Total of 13 large plantations in Penang	25,972	64,432	61,452	30,000	406
Total of 22 small do Pangukship of Ayer Rajah	542	2,588	3,300	2,000	20
do 6 do do Jullintong	1,340	350	1,900	600	13
do 10 do do Gigung	100	1,500	1,200	500	3
do 27 do do Sengay Kluan	85	44	327	1,000	3
do 10 do do Balik Pulow	600	1,000	1,600	200	12
Total number of clove trees in Prince of Wales Island	28,739	44,040	22,779	25,160	462

TABLE — (continued)

P L A N T A T I O N S	No. of Piculs of Cloves in Season 1943		Gross Value of Cloves and Pepper under Cultivation for season 1943		Estimated produce of Clove Crop for 1943	Estimated produce of Pepper Crop for 1943
	piculs	cats	dollars	cents	piculs	piculs
Total of 13 large plantations in Penang	79	50	3039	20	415	71
Total of 22 small do Pangukship of Ayer Rajah	9		360		50	
do 6 do do Jullintong						
do 10 do do Gigung						
do 27 do do Sengay Kluan						
do 10 do do Balik Pulow						
Total number of clove trees in Prince of Wales Island	87	50	3399	20	469	71

NUMBER of Clove Trees, &amp;c, growing in Province Wellesley up to October, 1943

P L A N T A T I O N S	Bearing Tree	Bearing	Total planted out	Plants in Nursery	Quantity of Crop under Cultivation
	number	number	number	number	number
Total number of clove trees in Province Wellesley	1,073	4,556	7,030	2,630	54
do of Prince of Wales Island brought down	26,300	44,040	74,770	25,160	463
Total of Prince of Wales Island and Province Wellesley 26 piculs	29,812	59,606	80,418	25,161	517

TABLE — (continued)

P L A N T A T I O N S	No. of Piculs of Cloves in Season 1943		Gross Value of Cloves and Pepper under Cultivation for Season 1943		Estimated produce of Clove Crop for 1943	Estimated produce of Pepper Crop for 1943
	piculs	cats	dollars	cents	piculs	piculs
Total number of clove trees in Province Wellesley	1	12	45	29	8	20
do of Prince of Wales Island brought down	87	50	3399	20	460	71
Total of Prince of Wales Island and Province Wellesley 26 piculs	88	62	3444	49	477	71

A TABLE showing the Number of Nutmeg, Peppercorns and Plants growing in Province Wellesley the Amount and Gross Value of Produce derived therefrom and Quantity of Ground under Cultivation, drawn up in October 1843

P L A N T A T I O N S	Bearing Trees		M Ma		N & B Bearing		Total planted out		Plants in Nursery		Quantity of ground under Cultivation	P R O D U C E					Gross value of produce in 1843		Estimated Number of Nuts for 1848	Estimated Number of Nuts for 1844
	number	number	number	number	number	number	or	Number of foot trees in 1843	Number of Nuts in 1843	Total Yield in 1843		Quantity of Nuts in 1843	number	pic	cents	dollars	cents			
																		C d Nuts at different prices per 1000		
Total number of nutmeg trees in Province Wellesley	10,599	8,005	707	45,600			247	1,000,010	18,044	1,084,101								1,080,000	2,948,000	
Total of Prince of Wales Island	61,112	30,109	103,984	208,813		5,510	2,382	1,115,551	1,461,491	1,653,780		2,6	96	76,944	14			12,438,762	25,400,000	
Total of Prince of Wales' Island and Province Wellesley comprised in 423 Plantations	75,014	47,704	111,248	223,705		10,101	540	17,666,710	1,480,021	1,836,561		300	501	86,810	107			14,136,622	28,370,000	

QUANTITY of Nutmegs, Mace, and Cloves exported from Prince of Wales Island, for Ten Years, commencing with the Year 1832—33 Extracted from the Books of the Registry of Imports and Exports Office

E X P O R T S	1832-33			1833-34			1834-35			1835-36			1836-37															
	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves													
England	114																											
Calcutta	80	10	30	23	43	63	32	27	506	10	43	5	2	26	222	40	133	36	17	24	231	6	48	10	102	33		
Madrass	0			9	53	2	11	2	40	5	6	55	4		4	65	1	1	85			1	62		4	10		
Bombay				20		2	60	1	50	1	1	50	1	1	1	79	7	91				1	4	4	24	41	75	
China				2	5	2	264	48	27	20	4	114										134	1	23	18	3	62	44
All other countries	143	18	116	50		33	0	305	63	233	06	57	35	139	30	62	23	92	77	142			21	8	71	2		
TOTAL	237	58	745	404	161	116	30	636	88	570	70	117	20	274	92	479	38	301	60	509	63	539	73	157	6	261	44	

  

E X P O R T S	1838-39			1839-40			1840-41			1841-42																				
	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves	Nutmeg	Mace	Cloves																		
England	80	33	21	114	46	133	78	70	108	32	60	10	33	50	71	10	103	75	54	13	194	1	182	10	94	14	62	70		
Calcutta	103	2	1	30	68	324	60	72	40	1	303	68	78	23	11	24	301	11	71	9	3	80	424	14	118	11	12	75		
Madrass	7	7	2	80	1	5	37	10	48	1	3	5	4	58		23	67	85	18	2	3	13	141	23	67	12	56	65		
Bombay	40	2	6	76	2	22	47	87	10	63																				
China	60			116		90	40				666	60	30	1	98	10	5	25	63	2			91	99				249		
All other countries	210	50	30	39	143	12	192	30	50	68	217	2	192	36	38	38	149	6	166	86	30	31	104	83	08	62	35	59	455	79
TOTAL	637	94	158	4	413	71	810	84	31	29	1063	89	608	31	150	49	254	20	80	50	180	80	309	61	966	59	234	60	826	60

## TRADE OF PENANG

The value of imports and exports, not including treasure, nor that portion exempt from duty, nor that large portion which only sailed through the port, but such goods alone as paid duties, is stated as follows in the custom-house returns for the following years —

VALUE OF MERCHANDISE WHICH PAID DUTIES		
YEARS	Value	Value
1816—17	Sp dollars	Sp dollars
1817—18		2,298,014
1828—29		22,1499
	\$,306,472	
Add value of piece goods, Siam trade, and opium which is included in the former years but the duties on which have been remitted since July 1820		
	1,243,219	
		3,49,691

The Trade of Penang, in 1828—29, was as follows —

I M P O R T S		E X P O R T S	
C O U N T R I E S	Value.	C O U N T R I E S	Value
From Calcutta	Sa. Rs. 10,94,586	To Calcutta	Sa. Rs. 3,57,130
Madras	16,53,850	Madras	2,36,765
" Bombay	2,65,300	Bombay	2,31,185
" England.	1,67,670	England	30,628
China	2,18,440	China	9,53,334
Siam	1,77,510	Siam	95,125
Teasserim	1,77,010	" Teasserim.	1,43,152
" Acheen	8,08,513	" Acheen	10,7,442
Delhi	2,04,066	Delhi Sumatra	1,38,30
" Quedah	2,31,100	Quedah	1,35,30
" Other places.	1,92,356	Other places	1,36,114
Total merchandise	52,23,872	Total merchandise	35,90,000
treasure	8,34,252	treasure	7,19,676
Total imports Sa. Rs.	60,58,124	Total exports Sa. Rs.	43,10,676

QUANTITY of Straits Produce exported by the Company's and Country Ships from Penang for China, as reported at the Office of the Registrar of Exports and Imports, 1833

PRODUCE	Quantity	PRODUCE	Quantity
Black pepper	piculs. 24,843	Ret. Inot	piculs 3,331
White ditto	405	Hofans	3,871
Tin	4,048		

COMPARATIVE Abstract Statement of the Trade of Penang with the undermentioned Places for the last Three Years.

COUNTRIES.	IMPORTS.			COUNTRIES.	EXPORTS.		
	1843-43	1843-44	1844-45		1843-43	1844-44	1844-45
	Co.'s Rs.	Co.'s Rs.	Co.'s Rs.		Co.'s Rs.	Co.'s Rs.	Co.'s Rs.
From Great Britain.....	59,917	451,959	250,509	To Great Britain.....	120,431	323,370	514,721
" Foreign Europe.....	55,608	71,724	47,437	" Foreign Europe.....	178,769	983,930	62,787
" America.....	..	58,078	81,773	" America.....	..	65,320	233,433
" Mauritius.....	5,269	31,074	6,307	" Mauritius.....	57,809	27,359	39,363
" Bourbon.....	35,330	18,535	26,343	" Bourbon.....	10,744	10,700	8,316
" Calcutta, &c.....	924,252	1,256,913	1,279,569	" Calcutta, &c.....	552,429	775,930	542,367
" Madras and Coast.....	732,652	426,638	507,131	" Madras and Coast.....	369,367	185,986	243,963
" Bombay.....	228,011	220,802	14,160	" Bombay.....	112,094	321,621	41,261
" Ceylon.....	25,347	54,094	26,919	" Ceylon.....	20,884	35,977	10,379
" Moulmein, &c.....	201,012	182,438	221,581	" Moulmein, &c.....	303,625	329,222	371,973
" Achem.....	493,069	504,694	508,297	" Achem.....	595,685	694,015	943,749
" Arzha.....	..	..	36,310	" Arzha.....	..	..	18,401
" China.....	208,539	198,284	147,353	" China.....	629,461	367,614	428,594
" Siam and Pungah.....	372,091	481,560	624,135	" Siam and Pungah.....	163,679	220,963	224,459
" Quedah.....	44,123	17,053	71,159	" Quedah.....	68,028	72,873	74,206
" Delle.....	224,436	373,068	387,799	" Delle.....	247,761	201,296	233,637
" Other Native Ports.....	115,612	131,728	165,035	" Other Native Ports.....	70,616	21,028	100,914
Total.....	3,583,920	4,377,242	3,286,058	Total.....	4,040,844	3,245,937	4,035,427
Total Specie.....	847,248	602,073	1,239,341	Total Specie.....	1,044,561	1,049,348	1,133,732
GRAND TOTAL.....	4,411,168	5,079,314	4,515,509	GRAND TOTAL.....	5,085,201	4,294,205	5,169,159
Total amount of Imports in 1844-45, as above.....	4,385,608			Total amount of Exports in 1844-45, as above.....	4,033,427		
" " " " from Singapore.....	1,125,659			" " " " to Singapore.....	1,222,221		
" " " " from Malacca.....	16,630			" " " " to Malacca.....	77,261		
Total Company's Receipts.....	3,541,340			Total Company's Receipts.....	3,233,959		

NUMBER and Tonnage of Square-rigged Vessels which have Imported and Exported into Penang during the following Years :-

COUNTRIES.	IMPORTS.					
	1842-43		1843-44		1844-45	
	number.	tons.	number.	tons.	number.	tons.
Great Britain.....	3	1,045	3	803	5	1,817
Cape of Good Hope.....	..	..	..	..	1	121
New South Wales.....	8	2,154	..	..	1	194
Foreign Europe.....	7	2,378	7	2,659	3	1,083
America.....	3	620	1	426	3	1,833
Mauritius.....	..	..	8	1,718	7	1,605
Bourbon.....	..	..	..	..	7	1,018
Calcutta, &c.....	48	10,484	83	17,294	77	16,704
Madras and Coast.....	41	8,309	77	2,271	29	3,448
Bombay.....	12	3,531	15	4,276	5	2,074
Ceylon.....	1	183	3	315	4	525
Moulmein, &c.....	30	2,745	32	3,723	14	1,343
Achem.....	94	4,479	90	3,191	26	3,567
Arzha.....	1	1,455	7	3,303	6	2,019
Malacca.....	6	718	..	..	8	1,316
Singapore.....	144	39,846	150	37,783	162	39,591
Staravia.....	..	..	2	610	1	309
China.....	12	11,441	15	6,609	19	7,688
Siam and Pungah.....	..	..	3	243	..	..
Quedah.....	..	..	..	..	1	80
Dalle.....	4	487	6	698	2	1,044
TOTAL.....	369	78,327	378	28,666	379	75,366
Total in 1842-43.....	Number of Vessels 369	Number of Tons 78,327				
" in 1843-44.....	" 378	" 28,666				
" in 1844-45.....	" 379	" 75,466				

NUMBER and Tonnage of Square-rigged Vessels, which have Imported and Exported into Penang, &c.—(continued.)

C O U N T R I E S.	E X P O R T S.					
	1842-43		1843-44		1844-45	
	number.	tons.	number.	tons.	number.	tons.
Great Britain.....	1	1,918	3	1,973	6	1,741
Foreign Europe.....	6	1,868	6	2,767	3	624
America.....	..	..	1	473	2	54
Mauritius.....	5	1,583	3	612	8	1,316
Bourbon.....	..	..	..	..	1	182
Calcutta, &c.....	53	12,308	64	16,643	90	21,727
Bombay and Coast.....	30	16,740	33	6,190	41	7,409
Penang.....	12	6,792	12	3,947	7	2,487
Ceylon.....	1	108	3	251	..	..
Moulmein, &c.....	41	7,692	97	3,682	97	4,146
Acheen.....	34	4,355	24	2,450	27	3,040
Arabia.....	4	804	9	2,310	9	3,291
Malacca.....	..	..	..	..	1	181
Singapore.....	110	22,507	123	22,928	144	22,838
Batavia.....	..	..	1	80	..	..
Canton.....	32	7,321	17	6,425	12	4,027
Siam and Pungah.....	3	4,074	3	873	..	..
Quedah.....	1	47	..	..	1	60
Belle.....	4	487	5	711	9	1,284
TOTAL.....	360	78,624	362	74,861	394	75,996
TOTAL in 1842-43.....	Number of Vessels 360		Number of Tons 78,624			
.. in 1843-44.....	.. 362		.. 74,861			
.. in 1844-45.....	.. 394		.. 75,996			

NUMBER and Tonnage of Native Vessels, Pralus, and Junks, which have Imported into and Exported from Penang during the following Years.

C O U N T R I E S.	I M P O R T S.					
	1842-43		1843-44		1844-45	
	number.	tons.	number.	tons.	number.	tons.
Singapore.....	22	1517	25	2410	62	4973
Malacca.....	17	484	13	338	12	309
Moulmein, &c.....	40	422	47	4045	45	4443
Acheen.....	264	2463	330	6616	269	3625
Siam and Pungah.....	73	7231	73	3130	153	3415
Delive.....	181	3078	160	1788	104	2969
Quedah.....	239	1415	170	2705	264	1733
Other native ports.....	146	674	211	1093	376	1175
TOTAL.....	984	16,036	1123	20,145	1331	21,782

STATEMENT.—(continued.)

C O U N T R I E S.	E X P O R T S.					
	1842-43		1843-44		1844-45	
	number.	tons.	number.	tons.	number.	tons.
Singapore.....	83	2,310	97	2,023	50	3,677
Malacca.....	..	..	28	1,505	21	250
Moulmein, &c.....	33	2,883	26	4,172	15	3,398
Acheen.....	210	4,301	412	5,699	219	4,030
Siam and Pungah.....	90	2,175	155	2,388	183	10,825
Delive.....	180	3,380	161	3,055	483	3,148
Quedah.....	420	2,184	261	1,652	284	11,028
Other Native Ports.....	722	3,300	317	1,213	403	1,123
TOTAL.....	1240	20,918	1563	22,708	1513	38,374

ABSTRACT of the Number and Tonnage of Native Vessels which have Imported into Penang during the following Years.

Y E A R S.	Vessels.	Tons.
1842-43.....	number. 984	number. 16,036
1843-44.....	1123	20,145
1844-45.....	1331	21,782



STATEMENT of the Number and Tonnage of Native Vessels which have Exported from Penang during the following Years

YEARS	Vessels	Tonnage
	number	tons
1842—43	1946	26 918
1843—44	1862	22 708
1844—45	15 5	28 5 4

## MALACCA AND THE EASTERN ARCHIPELAGO

PERHAPS there are few, if any, of the regions of the earth more highly favoured by nature than the peninsula stretching south from the British possession of Aracan. In none have men done less, and few are so thinly inhabited, or by a less enterprising or less thrifty race than the Malays, or even those who occupy that part of the peninsula included within the kingdom of Siam. The Burmese are a far more powerful, strong, and brave race, but, we believe, not more industrious.

Malacca is undoubtedly, in its natural resources, a very rich country, abounding in useful woods, minerals, and fertile soils, with many good harbours, and, thus Italian like in form peninsula, with the numerous, and almost uncultivated islands, in the straits and of the coasts of Malacca,—and with Sumatra, as a gigantic Scilly of the Indian Sea, and Java, as it were an Oriental Crete, with Borneo and the other great and small and fertile islands of the Eastern Archipelago, have already opened the most ample fields for trade and navigation, which must rapidly be developed by the genius, skill, and intelligence of commercial enterprise, and by the speedy communications which have been extended by steam to those seas and islands.

In the Eastern Archipelago the inhabitants are remarkably varied both in character and employments. They consist of diversities both of agricultural and commercial classes, from the wildest tribes, who seek a precarious subsistence in their woods and forests, to the Javanese, who cultivates the fertile soil of that island, from the petty trader, who collects the scattered produce of the interior, to the Chinese capitalist, who receives it from him, and disperses it again to more distant regions, situated between the continent of China on the one hand, and of India on the other, and furnishing to Europe the means of an extensive commerce.

By means of the variety of its tribes, their intermixture and connexion with each other, and the accessible nature of the coasts, washed by the smoothest seas in the world, while large and navigable rivers open communication with the interior, the stimulus of this commerce is propagated in successive waves through the whole, may be, to an extent that could not otherwise have been obtained. Thus the savage and intractable Batta collects and furnishes the camphor and benjamin, the spontaneous produce of his woods, the equally barbarous Dyak and wild Haraifura ransack the bowels of the earth for its

gold and its diamonds, the inhabitant of the Soolo, seeks for the pearl beneath the waters that surround him, and others traverse the shores for the *tripang* or sea slug or descend into its rocky caverns for the Chinese luxury of birds' nests. Ascending from these, we find the more civilised Sumatran, whose agriculture is yet rude, employed in the raising of pepper, the native of *Moluccas* in the culture of the nutmeg and the clove, the still higher Javan and Siamese, besides their abundant harvests of rice, supplying Europe with their coffee and sugar, and all impelled and set in motion by the spirit of commerce. Not less varied are the people who collect this produce from all these different quarters, till it is finally shipped for Europe, India, and China, from the petty bartering trader, who brings it from the interior to the ports and mouths of the river, the Malay, who conveys it from port to port, the more adventurous Bugguese, who sweeps the remote shores to concentrate their produce at the emporia, to the Chinese merchant, who sends his junks laden with this accumulated produce, to be dispersed through the empire of China and furnishes Europeans with the cargoes of their ships. Through the same diverging channels are again circulated the manufactures of India and Europe and thus a constant intercourse and circulation is maintained through the whole. How much this intercourse is facilitated by the nature of the countries, broken into innumerable islands, may be readily conceived, and the vastness of the field may be inferred, from the extent to which its commerce has actually been carried under every disadvantage of monopolising policy, and of insecurity of person and property, by which the condition of the people has been depressed, and their increase prevented. When we consider that they are placed at the very threshold of China, a country overflowing with an enterprising and industrious population, anxious and eager to settle wherever security and protection are afforded, that it is this people who have chiefly contributed to maintain and support the energies of the native population, and have diffused the stimulus of their own activity wherever they have settled, and that protection against despots and pirates only is wanted to accumulate them in any numbers, to create, it may be said, a second China, the resources and means of this extraordinary archipelago, will appear without limits.

*"Borneo and the Eastern Islands may become to China what America is already to the nations of Europe. The superabundant and overflowing population of China affords an almost inexhaustible source of colonisation, while the new and fertile soil of these islands offers the means of immediate and plentiful subsistence to any numbers who may settle in them. How rapidly, under such circumstances, these colonies may increase in population, where the climate is at least as congenial to the Chinese as that of America to Europeans, may be readily conceived from the experience which the latter has afforded. The wealth of their mines, and the extent of their own native population, added to the greater proximity of China, are advantages which were not enjoyed by America and must contribute to accelerate the progress of colonisation."*—From a number of the *Calcutta Journal*

The above extract, written some years ago at Calcutta, applies with equal force to the present condition of the straits' settlements, and islands, and of the Eastern Archipelago. The future of those regions must be great. The Malayan peninsula is in length about 770 miles, with an average breadth of about 120 miles. The British settlement of Malacca extends about forty miles along the shore of the Straits, and about thirty miles inland. Its area is about 900 square miles, bounded on the north by Solangore, on the south by Johore at the river Moara, on the east by the Rumbou country. The sea coast is rocky. The interior is in some parts mountainous. It has several picturesque valleys. Mount Ophir, in the rear, rises about 4000 feet above the sea.

Although the great majority of the inhabitants of the peninsula are Malays, it is not the original country of that people. They are said to have emi-

grated, from Palembang in Sumatra, about A. D. 1252, and founded the city of Malacca. The aborigines of the country were oriental negroes, like the Africans, with woolly hair, jet black skin, thick lips, and flat nose, and of diminutive stature, were driven inland to the mountains, where some of their posterity are still living.

Milburne says of the city of Malacca, in 1813 :—

“ It is situated at the head of a small bay, in 2 deg. 12 min. north latitude, and 102 deg. 10 min. east longitude, and has a very neat and beautiful appearance from the sea. The city is large: many of the houses are of stone and well built; and several of the streets are spacious and handsome. The fort is on the south side of a small river, over which is a bridge of several arches. The church stands upon a hill, and being always kept white, is conspicuous at a great distance.

“ Large ships anchor with the church bearing east 27 deg. north, in ten fathoms, about 1½ mile from the town. Ships' boats may proceed into the river at about three-quarters flood. In going in, keep the fort well open to the starboard, till the river is open between the fort and the houses; then steer directly in for the river, that being the deepest channel; the landing-place is on the larboard side, as soon as you enter the river, about two stones' throw from the bridge.

“ Malacca was first visited by the Portuguese, under Sequeira, in 1508, and they experienced a friendly reception from the king; but great jealousy arose among the commercial people of the different nations frequenting the place, especially the Arabs, which they so effectually instilled into the prince, as soon to destroy the good understanding between him and the Portuguese, whom he did not dare attack by open force, but used every species of treachery to destroy. Finding his plots detected, he ordered the massacre of all the Europeans who were in his power. Numbers were slain, but a few were kept as hostages, to prevent the revenge of the admiral. Albuquerque, who was then the Portuguese governor-general, taking advantage of this quarrel, sailed from Goa in 1511, and appearing before the port of Malacca, demanded the release of his countrymen. This demand was at first refused; but after some hostilities, the king was so terrified as to send the surviving Portuguese, and offered to make peace with them upon their own terms. Those prescribed by Albuquerque were very high; he demanded leave to build a fort where he thought fit; reparation of all damages done to the Portuguese; and a sum of money equivalent to the expense of the expedition. The king absolutely refused to yield to them; whereupon hostilities recommenced on both sides, which ended in Albuquerque's attacking the city by sea and land with great fury. After an obstinate resistance, it was taken by storm, given to the pillage of the troops, and the plunder was very considerable. The Portuguese immediately erected a strong fort, and put a good garrison into it: in a very short time it became famous all over India and Europe, and from its situation, commanded the trade of the neighbouring countries.

“ In 1605 the Dutch attacked and destroyed a fleet of Portuguese vessels, consisting of thirty-four sail, in the roads, and made an attempt upon the place, but were repulsed. In 1640 the Dutch, knowing the importance of the place, and the vast advantages accruing to the Portuguese from the possession of it, fitted out a large fleet from Batavia with a great body of land forces, and at the same time concluded an alliance with the King of Johore, who invested the place by land, while the Dutch blocked it up by sea. It was taken after a gallant defence of six months against a very superior force.

“ The Dutch retained possession of it till the breaking out of the war with Great Britain, to whom it was surrendered on the 17th of August, 1795, since which period the establishment of Pulo Penang, having superseded the necessity of maintaining it, the Company came to the resolution in 1805, of withdrawing the garrison and stores from Malacca and its dependencies; and, previous to the abandonment of the place, the fortifications and public works of all descriptions were completely demolished, so as to render it of the least possible value to the enemy, in case it should ever again come into

his possession. Many of the inhabitants, with their families and effects, repaired to Prince of Wales' Island, and established themselves under the Company's protection."

The following sketches, condensed from recent accounts, afford further information respecting this settlement, which may become yet a great central point of trade.

The American consul at Singapore reported some time ago,—

"Malacca, formerly a great place of commerce, became extinct when Penang by cession to the East India Company, was made a British port. At present the trade of Malacca consists of imports of rice from Aracan, and of various articles from China, for the consumption of its Chinese and Malay inhabitants. The articles of export are some twenty thousand piculs of tin, of good quality, and the walking-sticks which bear its name. The tin is smelted from stream ore, in and out of the British jurisdiction, principally by Chinese, who yearly resort to that port from China, and Singapore. This operation is attended with great risk to the undertakers and their labourers, for not unfrequently they fall victims to the cupidity of the Malay chiefs, who, too indolent themselves to undertake any task of continuous labour, seize the first opportunity of appropriating to themselves a rich booty. Hence the limited quantity of tin exported from a region so rich in this metal. Considerable quantities of gold dust are also sent from Malacca, but here again the enterprising adventurer is met, not only by treacherous Malays, but also by tigers."

Alluding to the mineral riches, another practical writer observes recently,

"The re-discovery of Malacca by Europeans (for such in reality was the recent movement) appears to have awakened a new spirit of enterprise. The Chinese miners, as if already feeling the presence of their great rivals from the west, and foreseeing that their monopoly must fall before their skill and combination, are eagerly extending their works. Four new mines have been opened within the last three months, and unless English capitalists bestir themselves in time they may find all the stanniferous valleys pre-occupied. An American gentleman lately visited all the mines in Malacca and in the Malayan states to the north and south, and as his report upon some of the localities where tin is now worked is very favourable, it cannot be doubted that the information which he has obtained will be duly appreciated by his enterprising countrymen, whose habit it is to plunge in *medias res* whilst we sit weighing the *pros* and *cons*. It may give our Cornish readers some idea of the metallic fertility of Malacca if we state that in one valley there are at this moment thirty-nine mines in operation. Can it be doubted that the granitic hills at the heads of this valley, the waters from which have strewn its whole length with tin sand, hold numerous rich veins? In one locality where the ground was first broken so recently as October last (1845), there are now 1200 Chinese employed, and recent visitors state the ore to be so abundant that the miners have not yet had occasion to dig six feet below the surface. The Chinese capitalists who have farmed the right of working mines in this locality from government, have hired a considerable number of Chinese emigrants, who lately arrived at Malacca."

ASPECT AND PRODUCTS OF MALACCA.—"Those who may be deterred from coming to Malacca from the associations connected with tropical jungles, and the difficulties of new settlements, must at once rid their minds of such impressions, and picture to themselves a great tropical garden, in which plains and valleys are surrounded and intersected by hills covered with an assemblage of fruit-bearing trees, and in front of this and stretching along a mediterranean sea, a long dark green zone formed of similar trees and a vast abundance of coco-nuts, beneath which thousands of cottages and houses are scattered, and a country blessed with a pure atmosphere, and refreshing and salubrious breezes."

"Six centuries have passed over Malacca since it was found a jungle by the Hindoo Malay emigrants. Malayan civilisation during the succeeding two centuries and a half flourished and advanced under a strong government, and while the country behind gra-

dually assumed the aspect of antiquity, the coast for many miles was converted into one continuous market place, where a trading population of nearly 200,000 persons were established, and to which vessels resorted from India, Arabia, China, and all parts of the Indian Archipelago. During the next 130 years Portugal, in its palmiest time, impressed an European character on Malacca; and then, for a still longer period, a more kindred nation, the Dutch, prepared it for the reception of English residents. This successive infusion of new ideas and new habits has given to Malacca a very peculiar and very attractive character. At this day all the races who have one after another predominated, as well as many others who, without possessing authority, have played the most important parts in its history, exist not only distinct, but co-mixed. Prejudices of blood and religion have been broken down or subdued. Each tribe, more or less, cut off from the powerful segregating influences that reign in its native land, and subjected to the fraternising force of common pursuits and constant intercourse, has found nature stronger than prejudice, and Christian and heathen, papist and heretic, Islamite and unbeliever—men of every tongue, and race, and colour, from the Ultima Thule to the golden Chersonese, and further still—not only live in perfect harmony, but mingle their blood without any misgivings. It would have been a sin against nature, here so gracious and so bounteous, had humanity proved more stubborn. This harmonious diversity, which marks the people themselves, extends to their architecture and all their habits of life. The great cause of this peculiar character of Malacca is the fertility and beauty of the country, and the remarkable purity and salubrity of the air. These circumstances have wedded the emigrants from different nations to the place, so that, instead of hastily gathering what wealth they could, and returning to their native countries, they have found themselves unable to break their attachment to Malacca, and it has become their adopted home.

“The very liberality of nature has, to our utilitarian notions, had its drawbacks. Men who find that their own country possesses almost every thing which they can desire, and merely to live in which is pleasure, have no adequate motive for exertion. Nature has been so kind that her children are necessarily indolent, and more prone to enjoyment than labour. Hence it happens that while, on the one hand, the comforts and luxuries of civilised existence may be found in all their fulness and at a cheap cost at Malacca, on the other hand, civilisation has left a wide economical field almost untouched. On the sea shore you have a mixture of the oldest European and the oldest Asiatic civilisations, with every thing that can please the eye and satisfy the desires of man. Go a few miles into the interior, and you have backwoods rich in virgin soil, and hollows secreting valuable metals; in a word, everything that can excite the cupidity of the utilitarian sons of the West.

“The stream tin of the peninsula we believe to be so abundant that ages may elapse before it shall be necessary to have recourse to the expensive process of mining, properly so called. The stanniferous region is so great that, although it has long been wrought, not a single valley has been thoroughly worked, and not one valley in a thousand has probably been touched.

“A Malacca Sugar Company has since been formed, and a large and valuable tract lying on the River Lingie has been applied for on their behalf. This tract is described to possess soil of superior quality, strength, and fertility. It has the great advantage of having excellent water-carriage, being bounded on the north-west side for about three miles by the River Lingie, a broad stream that would admit a 300-ton ship over the bar, and carrying from four to five fathoms of water for a considerable way up its course. Of this land, about 3000 acres consist of an alluvial plain fitted for the growth of sugar, while the rest is hilly and adapted for pasturage. At no great distance from this there are two or three other alluvial plains, varying in size from 3000 to 800 acres, well fitted for sugar cultivation. But in other localities there is ample room for far more extended cultivation of sugar. In all parts of the territory there are valleys large enough for plantations on a small scale, but it is to the large plains on the sea-board that we would, in the first place, direct the attention of companies. By far the most eligible is the large plain on the north of the River Kissang, the southern boundary of Malacca. The

*soil is here rich and deep* It appears that the upper soil is a black mould of about eight inches, resting on a dark soil of a foot in depth, composed of mingled earth and vegetable matter The whole rests on the ordinary light clays of Malacca, which yield good crops of rice, &c but this is not found pure until a depth of three feet has been attained The great advantages of the locality are the continuous extent of flat land, easily drained and easily irrigated, where draining or irrigation may be useful—the circumstance of its having a sea-board of ten or twelve miles, with numerous creeks and streamlets on one side, and a river frontage of about fifteen miles on another—and, above all, the absence of numerous scattered Malayan farms, which, in localities, oppose a considerable obstacle to the acquisition of connected tracts for large plantations On the two remaining sides the tract is bounded by rivers, on the borders of which are broad zones, cultivated, and inhabited, and traversed by a highway Another highway runs along the coast a little inland, and brings down another belt of cultivation but this is not so far as to deprive the tract of a considerable sea-board, little inhabited The extent of available land here may be roughly estimated at 150 square miles It is probably larger

In addition to a number of private persons who are preparing to engage extensively in cultivation, another company, besides the Malacca Sugar Company, has been projected on a large scale, and arrangements have already been entered upon, so as to allow of active operations being commenced immediately upon the company being constituted in England The gentleman who has made the preliminary arrangements is well versed in the practical details of such concerns, having been long engaged in sugar cultivation in the West Indies, Bengal, and the Straits, and in the latter locality has acquired that knowledge of the natives, their language, and modes of operation which will enable him to proceed to work at once and with certainty He has visited Malacca and selected the ground, and proceeds to England by the present mail, there to complete the further arrangements The locality chosen is in the immediate neighbourhood of Malacca, and consists of a fertile tract of alluvial plain, on which 5000 acres have been provisionally arranged for with government It possesses great facilities in an unlimited command of water, for purposes of transport and manufacture, and abundance of wood for fuel Its vicinity to Malacca will be advantageous for ensuring labour, and being bordered by an extensive plain, at present cultivated with rice, will permit of the cultivation and manufacture of sugar being prosecuted to any extent required Chinese are engaged to commence the planting of cane to a considerable extent

"In regard to labour, Malacca offers advantages for procuring it both in abundance and at a cheap rate Chinese labourers to any extent can be obtained from Singapore, which is within two days' sail of Malacca, and where from ten to fifteen thousand emigrants, labourers chiefly, annually arrive from China The services of these men can be procured at a very small rate, and the cost of their maintenance will not be great, from the low price which the necessaries of life bear in Malacca

"The contract system is decidedly the most advantageous, whether the manufacturer employs it upon land of his own, or merely erects a mill, and contracts with the cultivators for the cane This plan has been followed, both at Penang and Singapore, with the most signal success When the labourers are employed merely on monthly wages, the result is found highly unsatisfactory, as they have no great inducement to exertion, and the most constant and vigilant superintendence is unable to cope with the disposition to trifle and shirk their labour, which characterises natives in European employ, besides the constant risk of offence being given to their prejudices and feelings, and which, when given, renders them watchful to thwart and embarrass their employer On the other hand, labourers (Chinese almost principally) under the contract system, which is now generally in operation for sugar planting in the Straits, have a direct interest in the produce, since their gains depend upon the quantity of sugar produced, they work not under a European, but under their own countryman, who knows how to humour and manage them, and the consequence is, that they work zealously and to the purpose The following is a description of the system as pursued in Singapore —

"The system of contracts with the Chinese has by experience been found to be the best plan of proceeding, and has, accordingly, we believe, been very extensively adopted

By it, not only is a better cane produced, but the crop is more abundant. The plan is this—the ground is cleared, planted, and the whole management of it undertaken by the Chinese, who bring the crop to maturity and cut it down. It is carted from the ground by the manufacturer to the mill, and the Chinese are allowed at a certain rate upon the out-turn of sugar. The sum at present given is about a dollar and a half per picul, but as the cultivation extends, and more Chinese are found willing to engage in it, it will no doubt be considerably reduced, and still leave the Chinese contractor a very handsome profit.

Colonel Farquhar, for a number of years resident at Malacca, and Lieutenant Newbold, who speak from personal observation, are chiefly the authorities for the following remarks—

“Nature has been profusely bountiful to the Malay peninsula, in bestowing on it a climate the most agreeable and salubrious, a soil luxuriantly fertilised by numerous rivers, and the face of the country diversified with hills and valleys, mountains and plains forming the most beautiful and interesting scenery that it is possible for the imagination to figure in contemplating which, we have only to lament that a more enterprising and industrious race of inhabitants than the Malays should not have possessed this delightful region and we cannot but reflect with pain and regret on the narrow and sordid policy of the European powers, who have had establishments here since the early part of the fifteenth century, by which every attempt at general cultivation and improvement was discouraged and to such length did the Dutch carry their restrictions, that previous to the capture of Malacca by the English in 1795, no grain of any kind was permitted to be raised within the limits of the Malacca territory thus rendering the whole population dependent on the Island of Java for all their supplies. Under such a government it is not surprising that the country should have continued in a state of primitive nature, but no sooner were these restrictions taken off by the English, and full liberty given to every species of agriculture than industry began to show itself very rapidly. Notwithstanding the natural indolence of the Malays, the Malacca district now produces nearly sufficient grain for the consumption of the settlement, and with proper encouragement would I have no doubt, in the course of a few years, yield a considerable quantity for exportation.

The paddy grows most luxuriantly and yields from two to three hundred fold. One crop annually is all that is at present raised, but from the constant rains which prevail here throughout the year, two, or even more, crops might, with industry, very well be produced.

There is great variety of the richest soil in the vicinity of Malacca, adapted to the growth of every thing common to tropical climates, the vegetation is luxuriant here beyond what is to be met with in any other parts of India, the sugar cane is equal to any produced in Java, and far exceeds that of Bengal; coffee, cotton, indigo, chocolate, pepper, and spices have all been tried here and found to thrive remarkably well but as yet no cultivation to any extent of the articles has taken place, principally arising from the uncertainty of the English retaining permanent possession of Malacca, and to the apprehensions the native inhabitants entertain of being obliged to desist from any species of agricultural pursuits should the settlement revert to the Dutch.

The spontaneous productions of the soil are very numerous, consisting of an almost endless variety of the richest and most delicious fruits, amongst which the far-famed mangosteen holds the first rank, and attains a higher perfection here than probably anywhere else; indeed Malacca stands quite unrivalled in the quantity, variety, and agreeable flavour of its fruits. The country is covered with very fine and durable timber for ship and house building, although not enriched with forests of teak.

“The Port of Malacca is, beyond all comparison, the most convenient of any in the Straits for ships to touch at for refreshments, and the supplies procurable here are most abundant and at very reasonable rates. All kinds of poultry, fish, and vegetables, fruit, &c. &c. are to be had at all seasons of the year. Oxen cannot be obtained, but buffaloes are very plentiful, and of the largest and finest kind. Sheep are scarce being all imported from Bengal but goats and hogs may be procured at moderate prices.

"Nothing can be a stronger proof of the extent to which supplies are obtainable at Malacca, than the circumstance of the expedition to Java having rendezvoused here in 1811, during which period not less than 30,000 men were furnished daily with fresh provisions of every kind, as well for Europeans as Natives, in the greatest abundance.

"The climate of Malacca is one of the best in India there you experience none of the extremes of heat and cold, but at all times enjoy a uniform temperature the most agreeable. The thermometer ranges from seventy-two to eighty-five degrees throughout the year, seldom exceeding the latter, or falling much below the former. The mornings and evenings are particularly cool and refreshing, and you have seldom to complain of hot, sultry nights. There are regular rainy or dry monsoons at Malacca, such as prevail over the continent of India, the rains, however, are more constant and heavy in the months of September, October, and part of November, than during the rest of the year, and from the month of December to the middle of March, whilst the north east wind blows the strongest, the weather is considerably drier than in the other months. Malacca enjoys regular land and sea breezes, during the height of the north-east monsoon the sea breezes are very faint, and the land winds at that season frequently blow with considerable force and little variation for some weeks, they are not however of a hot and parching nature, like those on the continent of India, owing, no doubt, to their passing over a considerable tract of country thickly clothed with woods, so that the earth never becomes heated to any great degree. The mornings at this season are particularly agreeable, the weather being quite serene, and the air sharp and bracing. Very little variation takes place in the barometer at Malacca during the year it is found to fluctuate between 30 deg 3 min, the highest, and 29 deg 83 min, the lowest, giving an annual variation of only one-fifth of an inch.

"The salubrity of the climate may be pretty fairly judged of by the number of casualties that have occurred in the garrison for the last seven year, which, from a correct average taken from the medical register of those men who have died from diseases contracted here, does not amount to quite two in the hundred, a smaller proportion than will be found in almost any other part of India"—*From Col Tarquhar's Statement concerning the Settlement of Malacca*

"The soil of Malacca is remarkably fertile, and in many places capable of producing excellent nutmegs and cloves. Rice is grown in abundance, the ground frequently yielding more than two hundred fold. The supply of water, both from springs and rivulets, is easy and plentiful. The chief rivers are the Lingie the Malacca river, the Cassang, the Sungie Baru, and the Dayong. The first is navigable for small brigs ten or twelve miles from the mouth. They take their rise among the hills in the interior, and empty themselves into the Strait of Malacca. The mouths of these rivers are more or less obstructed by bars and sandbanks, their sides are generally low, in many places swampy, and covered with forest.

"The last census (July, 1836) gives the total population of Malacca and its territory, including Nanning, at 37,706 souls, of whom the greater proportion are Malays. In 1818 it amounted only to 25,000, giving an increase in eighteen years, of 12,706.

"Agriculture is on the increase, and primeval forests are fast disappearing under the axe of the clearer. The notorious salubrity of Malacca, the richness of the soil, and the facility of water-carriage, offer great attractions to colonists. The spots I would recommend are the banks and mouths of the largest rivers. Qualla Lingie, or the mouths of the Lingie river, is a locality extremely well adapted to the wants of a young colony. Its advantages are, a navigable river, leading up to the tin mines of Sungie-ujong, filled with fine fish, a safe and easy communication both by land and sea with the town of Malacca, and a great extent of undulating territory, particularly favourable for the cultivation of rice, cocoa nuts, and spices.—*Newbold's British Settlements, 5c*



## SINGAPORE

THE Island of Singapore is admirably situated for commercial and maritime enterprise. It may be said to command the Indian Seas. A narrow strait, in some parts little more than a canal, a quarter of a mile wide, divides it from the main land. It is about twenty-seven miles from east to west, and its extreme breadth about fifteen miles. Estimated area about 270 square miles, or 172,800 acres. A great number of small and nearly desert isles are scattered round at a distance of a few miles.

The rise and prosperity of this settlement are owing chiefly to the enterprise of British merchants. It was founded in 1818 by Sir Stamford Raffles, a few hundred Malay fishermen were then its only inhabitants. Next to Batavia it has become the greatest commercial port in the Eastern Archipelago.

The island of Singapore is low, marshy, and monotonous in its appearance. The erection of substantial public buildings and handsome well constructed dwelling houses, and of baths, concert-rooms, and other elements of civilisation, render it both an attractive and agreeable place. The leading merchants, brokers, shopkeepers &c., are British, and there are several wealthy resident Chinese merchants and shopkeepers in the place, great numbers of Chinese arrive annually in their trading junks, many of whom settle at Singapore. The climate is considered salubrious, and the inhabitants frequently live to a very advanced age.

Accounts are kept in Spanish dollars divided into cents. The usual credit on sales is as follows—Europe goods, three months, Indian and China ditto, two months, Opium, two months. The last article is frequently sold for cash. Produce is generally bought for cash.

The common weight is the picul of 133½ lbs. Avoirdupois, divided into 100 catty. Salt and rice are sold by the coyan of forty piculs. Java tobacco by the corge of forty baskets. Bengal rice, wheat, and gram, by the bag, containing two Bengal maunds. Indian piece goods, by the corge of twenty pieces. Gold and silver thread, by the catty of thirty six dollars weight. Gold dust, by the bunkal, which weighs dollars equal to 832 grams troy.

Singapore is in every respect a free port, there being neither import nor export duties, nor harbour or shipping dues,—vessels of every nation are free of all charges. The intercourse with China, the Eastern Peninsula, and the islands in the Archipelago, is conducted by natives in junks, prahus, and craft of the most varied description—every year showing an addition to their number and to the places in which they have been equipped. If to these be added the European, Indian, and American vessels, the whole amount of the shipping annually entering Singapore is upwards of 300,000 tons.

The *Singapore Chronicle* was commenced about the year 1823, in a quarto

form, and for several years appeared once a fortnight, and being printed at the Mission Press, contained for a long time little else than government notifications and a very small share of commercial news

Early in 1827, however, the odious censorship having been withdrawn from the press of Singapore, new vigour was infused into the journal, and in a year or two afterwards we find the *Chronicle* coming forth in an enlarged and improved form, taking the sub-title of "Commercial Register," and issued weekly

On the 8th of October, 1835, a second paper, entitled the *Free Press*, was established, and by the united, and sometimes conflicting efforts of these two journals, the local occurrences and interest of Singapore are fully and fairly represented. Both papers now devote much attention to mercantile affairs, and publish useful commercial and statistical information

COMPARATIVE Statement of the Census of Singapore from 1823 to 1845

DESCRIPTION	1823			1830		
	TOTAL	Males	Females	TOTAL	Males	Females
Europeans	74	51	23	73	49	24
Native Christians	74	133	13	228	117	111
Armenians	16	13	3	18	10	8
Arabs	16	17	17	28	14	14
Kings	390	573	32	603	1,437	1,451
Natives of Hindoostan	305	257	137	331	308	114
Bengals and Barmese	1,801	663	579	1,479	1,048	431
Malays	4,480	3204	2433	5,687	2,643	3,044
Chinese	3,317	3853	326	4,923	6,021	334
Javanese		119	33	146	361	265
Cafres						
Siamese						
Indo-Britons					21	8
Jews					9	9
Parsees						
Boyanese						
Portuguese						
Military and followers	10,030	9,147	3,708	12,855	12,213	4,121
Strangers on an average	308	535	130	665		
Convicts	2,300	204	2	206		
Sick and insane in hospital						
<b>TOTAL</b>	<b>15,579</b>	<b>9,646</b>	<b>3,610</b>	<b>17,756</b>		

  

DESCRIPTION	1840			1845		
	Males	Females	TOTAL	Males	Females	TOTAL
Europeans	109	55	165	204	123	326
Native Christians	263	279	542			
Armenians	19	17	36	38	27	65
Arabs	21	7	28	210	59	269
Kings	2,145	129	2,274	3,948	760	4,708
Natives of Hindoostan	2,7	135	142	250	200	450
Bengals and Barmese	1,760	916	2,676	1,340	631	1,971
Malays	4,980	4032	9,012	6,217	4,818	11,035
Chinese	15,518	1641	17,159	28,765	3,267	32,032
Javanese	648	266	1,014	1,149	182	1,331
Cafres	13	11	24	25	33	58
Siamese	19	8	27			
Indo Britons	84	69	153	136	122	258
Jews	8		8	37	15	52
Parsees	13		13	14		14
Boyanese				2,3	9	11
Portuguese				214	168	382
Military and followers	26,240	7,729	33,969	2,793	10,454	13,247
Strangers on an average			450			450
Convicts			4,790			4,790
Sick and insane in hospital			1,208			1,208
<b>TOTAL</b>			<b>39,625</b>			<b>29,742</b>

*Trade of Singapore.*—There were no correct accounts of the trade kept until 1824. The value of merchandise imported and exported on junks, prahus, &c., amounted in eighteen months, from the 1st of May, 1820, to the 31st of October, 1821, to nearly three millions of Spanish dollars; and the value of the imports and exports, by square-rigged vessels, was estimated at two millions.

In November, 1821, eighteen ships arrived at, and fourteen departed.

1822.—Tonnage employed in the trade of the island, 130,629 tons; value of imports and exports, 8,568,172 Spanish dollars.

I M P O R T S.		E X P O R T S.	
DESCRIPTION.	Value.	DESCRIPTION.	Weight.
	Spanish dollars.		
Indian piece goods.....	500,000	Sugar..... tons	1,000
British piece goods.....	200,000	Pepper..... do.	1,400
		Tin..... piculs	12,500

The number of clearances to European vessels, at Singapore, from the end of December, 1822, to the beginning of January, 1824, amounted to 208. Forty-seven cleared out for Hindostan, forty-two for Malacca and Penang, forty-eight for China, nine for Great Britain, four for Manilla, three for Siam, four for Tringanu and Kalantan, five for Borneo, twenty-nine for Java, six for Sumatra, eleven for Borneo, and one for New South Wales. The tonnage of these vessels amounted to more than 75,000 tons; many vessels put in for the convenience of wooding and watering only, others traded to a small extent; some took in a portion, and a few, the whole of their lading. The port is so convenient for entering and departing, that almost every ship that sails through the Straits of Malacca touches, either for cargoes, supplies, or to obtain information. Out of 424 vessels that passed and repassed the Straits of Malacca during the year 1823, not more than six or seven passed on without touching, and these were chiefly Dutch men-of-war.

A very important branch of trade is that of the Chinese junks from Canton and Fokien. In 1823 these amounted to six in number, averaging about 3000 tons. They import and export full cargoes to and from Singapore.

The native vessels from Siam in 1823, were forty-three junks, equal to about 11,000 tons. The greater number of these imported full cargoes, and carried away other articles in return. A few Siamese vessels traded previously at the ports of Java and Penang, and touch at Singapore to make up their cargoes.

The native trade with Cochin China during the same period, was carried on in twenty-seven junks, of about 4000 tons. These vessels, with the exception of a few to Malacca and Penang, traded direct with Singapore.

The trade of the India islanders with Singapore was then much the same as now, divided into the following classes. That of the Bugis, of the Borneans, the Sumatrans, and that of the Malaysians in the immediate neighbourhood. The

whole of the port-clearances throughout the year 1823, amounted to 1445, and in this enumeration the same vessels making repeated voyages were frequently included. Between this port and every place within the Straits of Malacca, frequent intercourse was kept up throughout the year, and there was then a class of vessels which often made three voyages a month between Singapore and the Dutch settlement of Rho, about sixty miles distant. The most important branch of the trade of the Indian Archipelago has been that of the Bugis, who, from their distance and the nature of the monsoons, make but one voyage throughout the year. In 1823 the Bugis prahus of the different countries they sailed from, and traded to, Singapore, were not less than eighty in number, comprising nearly 3000 tons. The trade with the state of Borneo Proper has been, even in 1823, another considerable branch of the island trade. It employed about twenty-five large prahus, carrying about 1500 tons. The whole of the native trade of the Archipelago to Singapore, taken together, (exclusive of the ephemeral trade of the immediate vicinity and of the Straits of Malacca, was stated, in 1823, at 4500 tons annually.

Sir Stamford Raffles, writing to the Duke of Somerset, says —

‘The commerce, therefore, which I have endeavoured to secure by the occupation of Singapore, is no less important to us than it is our legitimate right. Within its narrowest limits, it embraces a fair participation in the general trade of the Archipelago and Siam and in a more extensive view, is intimately connected with that of China and Japan. We should not forget that it was in these seas the contest for the commerce of the East was carried on and decided—that it was this trade which contributed to the power and splendour of Portugal, and at a later date raised Holland from insignificance and obscurity, to power and rank among the nations of Europe.’

The rapid advance of Singapore from its establishment in 1818, to the present period, fully justifies the policy of that great man.

The prosperity and gradual increase of trade has taken place too, in despite of many early obstacles the principal of which were the unchecked prevalence of piracy in these seas, which seriously affected the native trade throughout the secret as well as the open opposition of the Dutch, the prohibition to import fire arms and ammunition, which (as applicable to purposes of defence as of attack) the natives were obliged to procure when and how they could, and the exclusion of American traders, for some years, from a participation of the trade of the settlement, by which it was deprived of much of the specie which they have usually brought from the United States, to purchase Oriental products.

ABSTRACT Statement of all Exports from Singapore during the following Official Years.—In Dollars of 4s. 8d. sterling each.

C O U N T R I E S .	1923-24	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1931-32	1932-33	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39	1939-40	
	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	dollars.	
Great Britain...	Merchandise	1,109,974	524,006	4,300,441	2,602,807	1,993,695	3,136,046	3,453,166	3,476,326	2,647,969	2,562,172	3,327,120	1,307,793	666,497	1,680,253	754,173	1,147,230	1,450,298
	Treasure	36,000	34,950	..	1,000	81,539	18,183	233,024	95,321	65,840	17,922	101,003	44,593	6,548	113,777	7,000	8,499	
Foreign Europe...	Merchandise	..	..	..	273,901	129,337	106,961	1,791	99,331	39,176	39,311	119,764	128,027	116,511	33,640	70,488	114,739	168,899
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
America.....	Merchandise	..	..	80,044	28,456	86,589	..	90,065	16,484	19,591	19,481	7,166	2,443	85,033	41,706	22,700	77,107	138,847
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Australia.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Calcutta.....	Merchandise	295,871	731,905	..	335,068	490,035	608,474	679,211	444,378	323,106	285,201	331,400	408,167	992,918	910,098	878,228	205,911	532,089
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madras.....	Merchandise	234,471	835,141	186,331	412,919	378,939	312,530	384,150	317,263	849,423	615,224	619,538	477,093	660,000	598,130	734,151	814,512	
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bombay.....	Merchandise	9,800	8,969	6,600	14,597	25,114	43,918	46,308	43,077	99,358	31,529	23,200	44,607	16,627	28,664	86,816	31,673	58,514
	Treasure	19,670	21,515	..	118,399	38,550	141,928	99,690	91,637	79,034	115,283	143,398	172,099	117,444	83,891	89,599	85,536	105,537
Ceylon.....	Merchandise	61,326	61,818	165,931	196,495	73,081	154,819	246,954	146,461	191,789	184,697	123,357	152,132	300,166	265,977	319,714	233,213	
	Treasure	81,593	29,800	10,690	33,574	16,388	39,794	49,168	28,669	36,040	38,017	80,110	80,631	45,541	163,158	67,878	39,873	33,318
Arabia.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ceylon.....	Merchandise	..	..	..	..	..	..	1,000	8,385	16,440	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Manilla.....	Merchandise	..	..	..	..	..	..	147,691	148,320	25,238	57,340	261,478	468,573	329,364	289,378	441,337	237,758	597,716
	Treasure	..	..	..	..	..	..	18,959	4,370	..	..	..	..	..	..	..	..	..
China.....	Merchandise	938,815	1,042,030	743,628	1,608,433	230,941	831,294	807,993	733,520	742,185	691,656	645,561	1,288,807	1,121,654	1,076,306	1,437,413	1,474,414	
	Treasure	..	4,000	..	101,460	97,550	80,928	90,850	32,800	1,480	1,083	23,244	3,000	20,748	13,724	48,123	67,184	11,724
Hongkong.....	Merchandise	405,873	374,478	143,846	295,467	436,566	467,192	373,248	320,025	341,179	447,103	609,332	666,716	468,442	561,325	425,050	349,006	
	Treasure	67,880	337,314	17,250	49,000	50,943	73,274	54,499	30,416	41,184	114,880	65,706	31,821	69,844	31,721	21,057	92,073	151,118
India.....	Merchandise	..	..	..	..	..	19,240	28,290	31,232	33,503	61,816	41,915	66,890	63,282	73,578	48,808	37,311	116,170
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Siam.....	Merchandise	246,011	300,443	171,629	148,000	311,622	281,938	235,757	141,129	310,606	219,469	106,292	189,141	176,791	345,018	297,872	208,272	250,713
	Treasure	100	11,341	13,484	4,857	39,159	39,703	8,207	1,500	4,320	1,250	1,884	3,560	68,316	3,500	48,567	75,548	108,508
Cochin China.....	Merchandise	98,781	98,597	44,433	184,139	85,494	69,617	101,511	40,129	212,616	74,644	74,452	64,158	54,320	50,071	71,899	193,882	
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Siam.....	Merchandise	3,593	138,038	397	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
* East Coast Peninsula.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
* West Coast Peninsula.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
* Celebes & other Eastern Islands.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
* Sumatra.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
* Daily.....	Merchandise	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Treasure	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Neg. Islands & other Places.....	Merchandise	1,105,297	1,810,544	1,309,662	1,413,929	1,570,737	1,063,044	1,354,253	1,815,023	80,828	64,775	63,847	169,091	60,707	114,181	59,884	88,457	104,407
	Treasure	132,740	52,220	139,662	276,836	180,734	32,241	98,127	38,846	16,199	30,506	39,094	17,410	39,257	12,410	39,257	12,410	32,258
Penang.....	Merchandise	102,253	313,917	165,067	106,847	193,644	321,900	..	170,849	399,891	190,417	398,117	416,833	416,888	516,841	315,281	374,273	415,617
	Treasure	43,660	79,799	33,851	68,519	113,309	48,628	..	31,186	36,000	180,091	14,719	127,645	138,811	138,811	102,714	141,617	158,000
Malacca.....	Merchandise	138,317	106,510	..	166,843	101,721	363,094	..	161,582	170,349	189,241	188,513	151,958	116,627	104,138	145,900	138,075	158,841
	Treasure	36,000	29,923	39,300	49,031	65,970	20,116	..	10,856	16,405	25,148	23,660	31,800	40,900	78,947	83,814	84,382	176,722

Total Spanish dollars..... 4,826,162 5,871,791 5,367,668 6,555,975 6,360,088 8,373,170 8,089,835 8,677,601 7,433,427 7,057,190 8,288,167 7,411,244 6,969,960 7,806,965 7,270,546 7,603,528 8,374,483

\* The Value of Exports to these Places, for the five first years, is included under "Neighbouring Islands and other Places."

ABSTRACT Statement of all Imports into Singapore during the following official Years—Value of Imports

COUNTRIES		1823-24	1824-25	1825-26	1826-27	1827-28	1828-29	1829-30	1830-31	1831-32	1832-33	1833-34	1834-35	1835-36	1836-37	1837-38	1838-39	1839-40
		dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar	dollar
Great Britain	Merchandise	867,550	1,001,461	835,025	1,338,664	975,059	1,146,000	1,639,001	1,612,353	1,511,254	1,836,378	1,212,589	1,308,408	1,711,536	1,634,661	2,080,557	2,040,297	2,332,580
	Treasure	85,000		6,000	9,340													
Foreign Europe	Merchandise				7,490													
	Treasure																	
America	Merchandise	7,600			42,777	13,890	32,578	6,391	6,016					38,152	34,028	8,910	1,370	1,341
	Treasure				133,000	2,000	2,500	22,171						87,000	79,000	41,070	28,000	11,500
Mauritius	Merchandise	4,500	3,228		3,013	74,086	20,439	29,384	6,371	3,468	5,734	200	100	1,766	1,884	2,420	8,874	174
	Treasure													2,000		26,900	3,308	28,550
Calcutta	Merchandise	1,463,24	1,384,444	765,125	992,841	990,560	1,410,710	1,322,364	214,938	1,069,253	1,600,228	1,222,659	1,071,255	1,190,941	1,401,570	609,794	1,420,487	1,384,546
	Treasure	2,650			2,000	2,500	7,831	6,100	1,000	3,600	4,960	41,824						2,358
Madras	Merchandise	125,853	40,200	116,340	174,540	197,005	81,341	173,950	48,235	141,041	117,450	361,800	735,579	151,021	272,500	378,582	288,532	164,073
	Treasure	20,000			16,500		2,000					7,000	529					1,180
Bombay	Merchandise	236,774	98,604	6,393	127,473	1,05,040	180,311	159,877	103,625	61,575	250,191	137,068	101,321	148,316	235,251	301,607	805,097	265,443
	Treasure						1,000							4,445	460			1,000
China	Merchandise	786,55	646,609	680,270	691,579	767,837	905,076	2,620,022	2,700,185	2,272,028	177,121	719,919	737,743	84,046	651,470	679,075	680,616	857,691
	Treasure	0,650	1,000	90,306	36,450	83,729	14,874	59,401	67,460	161,75	185,447	81,370	29,214	149,094	139,266	81,190	20,506	231,373
Java	Merchandise	1,077,94	475,000	364,412	408,472	0,21,011	346,021	50,001	986,319	928,178	667,303	833,427	986,813	967,123	792,537	893,448	498,066	179,800
	Treasure	23,400	183,754	50,50	130,466	134,308	1,32,700	96,800	48,006	80,006	63,572	80,220	61,548	68,736	100,124	143,709	139,754	58,678
Bho	Merchandise																	
	Treasure																	
Siam	Merchandise	171,390	140,232	168,490	216,975	133,000	300,259	303,642	200,027	227,428	239,101	14,604	191,663	235,046	216,998	37,211	280,513	484,377
	Treasure	1,367	1,001	80	80		10,307						82,908	48,833	8,943	3,728	0,273	
Oceania & China	Merchandise	42,943	101,775	117,200	153,031	31,520	108,877	94,490	57,717	1,610	130,954	66,045	94,241	62,840	107,732	68,648	70,786	155,847
	Treasure			1,600	0,000		125		2,800		4,600	1,700	15,000		5,206	1,060	5,473	10,597
Ceylon	Merchandise					0,104		4,232	12,241	3,841	20,128	1,273	5,141	31,026	8,150	14,240	11,520	4,888
	Treasure																	
Sumatra	Merchandise	33,340		92,223														
	Treasure																	
East Coast Peninsula	Merchandise																	
	Treasure																	
West Coast Peninsula	Merchandise																	
	Treasure																	
Manilla	Merchandise																	
	Treasure																	
Celebes & other Eastern Islands	Merchandise																	
	Treasure																	
Borneo	Merchandise																	
	Treasure																	
Bally	Merchandise																	
	Treasure																	
Arabia	Merchandise																	
	Treasure																	
Neg. Islands & other Places	Merchandise	8,513	632,347	1,187,276	973,120	723,140	1,044,747	1,140,986	1,160,24	1,155,255	91,018	1,076,090	1,390	1,185,45	146,298	97,113	807,397	153,241
	Treasure	289,612	498,051	3,11,121	5,21,126	111,111	8,200	10,800	1,244	1,102	7,710	11,658	10,207	10,207	10,207	10,207	10,207	17,031
Penang	Merchandise	214,502	11,466	270,570	25,008	29,103	38,848	2,154	3,453	2,000	20,217	17,323	40,29	46,418	426,842	50,549	510,454	510,454
	Treasure	15,800	54,408	4,411	4,403	1,871	1,100											
Malacca	Merchandise	130,510	117,798	402,977	104,729	82,54	15,553	123,940	110,930	129,861	130,158	133,169	110,316	18,111	172,890	179,665	177,000	177,000
	Treasure	4,662	21,806	47,700	30,747	47,862	4,273	40,300	29,25	48,324	47,34	44,070	44,070	44,070	44,070	44,070	44,070	44,070
TOTAL Spanish Dollars																		

\* The Value of Imports is from the places for the five first years in Italics. Negligible items are not included.

IMPORT TONNAGE.—Statement of the Number and Tonnage of Square-rigged Vessels which have Imported into Singapore, during the following Official Years.

C O U N T R I E S.	1829-30		1830-31		1831-32		1832-33		1833-34	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
	number.	number.	number.	number.	number.	number.	number.	number.	number.	number.
Great Britain.....	19	7,056	..	8,028	..	2,168	18	6,726	28	7,754
Continental Europe.....	8	1,478	..	869	..	..	2	651	7	7,661
America.....	2	949	..	..	..	..	..	..	2	615
Isle of France.....	2	901	..	1,327	..	..	..	..	3	819
Bourbon.....	..	..	..	..	..	..	..	..	2	431
New South Wales.....	1	424	..	3,658	..	692	9	3,980	15	5,895
Cape of Good Hope.....	1	231	..	..	..	175	1	385	..	..
Ceylon.....	2	243	..	285	..	158	8	849	4	839
Bombay and Malabar Coast.....	38	24,578	..	31,219	..	29,236	38	83,660	51	89,906
Madras and Coast.....	12	6,800	..	4,196	..	1,909	10	3,455	10	2,892
Canton.....	23	14,801	..	16,374	..	13,376	33	16,517	40	17,194
China.....	45	21,148	..	24,199	..	27,998	47	10,160	67	34,719
Java.....	69	15,878	..	13,501	..	16,745	81	17,023	73	12,228
Manilla.....	14	4,925	..	3,554	..	2,769	21	6,984	20	6,078
Arabia.....	..	..	..	1,073	..	..	..	..	9	748
Sumatra.....	1	198	..	1,386	..	2,443	5	896	16	3,174
Borneo.....	..	..	..	..	..	1,138	3	597	12	1,781
Siam.....	12	3,589	..	8,089	..	1,148	4	688	6	1,694
Rile.....	1	238	..	516	..	1,385	10	1,547	6	728
Cochin China.....	3	900	..	573	..	1,285	4	987	3	770
Moulmein.....	..	..	..	..	..	..	..	..	1	78
Rangoon.....	..	..	..	..	..	140	..	..	..	..
Malacca.....	69	4,828	..	6,476	..	2,167	67	6,002	64	8,830
Penang.....	43	6,513	..	6,158	..	7,884	51	5,575	46	6,447
Other Ports.....	23	6,287	..	1,061	..	394	8	808	8	1,125
TOTAL.....	264	117,240	406	198,076	413	124,945	420	120,448	475	127,228

IMPORT TONNAGE.—Statement of the Number and Tonnage of Square-rigged Vessels which have Imported into Singapore—(continued).

C O U N T R I E S.	1834-35		1835-36		1836-37		1837-38		1838-39	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
	number.	number.	number.	number.	number.	number.	number.	number.	number.	number.
Great Britain.....	16	8,316	19	5,596	10	5,221	16	4,726	32	16,976
Continental Europe.....	3	961	3	836	2	287	1	240	8	2,440
America.....	3	894	9	799	4	1,084	3	1,100	4	1,541
Isle of France.....	1	808	1	130	1	342	2	781	6	1,616
Bourbon.....	1	120	1	286	..	..	1	338	1	319
New South Wales.....	9	5,730	6	1,037	4	1,190	8	3,717	30	19,338
Cape of Good Hope.....	..	..	..	..	1	185	1	105	1	268
Ceylon.....	..	..	4	665	4	669	..	..	7	460
Bombay and Malabar Coast.....	45	26,770	31	13,061	51	28,290	62	80,722	71	41,292
Madras and Coast.....	12	4,072	19	16,537	14	10,342	10	4,851	15	7,220
Canton.....	70	30,265	87	35,818	67	27,107	39	21,668	48	15,519
China.....	82	20,251	88	40,282	111	45,971	60	30,538	73	22,960
Java.....	89	10,013	78	16,777	74	13,548	72	12,967	65	13,045
Manilla.....	22	5,668	27	6,079	19	4,415	18	6,525	21	7,418
Arabia.....	..	..	1	254	2	397	1	323	3	604
Sumatra.....	15	2,662	14	3,417	17	2,746	14	3,508	17	1,926
Borneo.....	17	3,913	23	2,484	10	1,889	13	2,928	16	2,421
Siam.....	6	1,984	9	3,050	8	3,541	14	3,563	22	6,301
Rile.....	10	2,609	8	584	7	1,119	13	771	2	467
Cochin China.....	5	1,655	4	697	4	1,150	3	1,123	4	1,445
Moulmein.....	1	203	3	300	1	180	2	409	3	455
Rangoon.....	5	1,621	..	..	..	..	1	100	..	..
Malacca.....	64	6,328	53	8,819	37	5,864	55	5,692	38	2,904
Penang.....	67	7,263	37	10,137	73	13,054	29	14,918	37	11,526
Other Ports.....	12	2,410	17	2,410	12	1,515	7	687	6	1,206
TOTAL.....	517	156,513	539	166,053	541	176,635	520	150,532	674	178,790

EXPORT TONNAGE.—Statement of the Number and Tonnage of Square-rigged Vessels which have Exported from Singapore during the following Official Years.

C O U N T R I E S.	1820—20		1830—31		1831—32		1832—33		1833—34	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Great Britain .....	19	5,937	..	5,861	..	3,695	30	9,600	26	8,255
Continental Europe .....	5	1,246	..	1,102	..	..	3	581	5	1,130
America .....	2	520	..	..	..	..	..	..	..	..
Isle of France .....	2	595	..	357	..	..	1	381	1	500
Bourbon .....	..	..	..	..	..	..	..	..	..	238
New South Wales .....	3	985	..	..	..	..	3	555	7	301
Cape of Good Hope .....	..	..	..	175	..	..	1	231	..	..
Ceylon .....	3	880	..	110	..	..	1	110	3	862
Bombay and Malabar Coast.	29	15,183	..	16,729	..	15,565	22	12,257	36	14,619
Madras and Coast .....	9	2,947	..	2,432	..	1,358	7	2,150	14	4,521
Calcutta .....	36	10,379	..	14,555	..	4,091	33	8,448	33	9,734
China .....	69	46,374	..	32,510	..	47,199	73	43,780	103	46,043
Java .....	59	13,200	..	11,481	..	10,025	54	10,985	74	14,469
Manilla .....	11	2,789	..	1,986	..	2,488	10	1,740	11	3,279
Arabia .....	..	..	..	942	..	..	1	309	3	1,348
Sumatra .....	1	350	..	..	..	2,071	12	1,639	30	3,565
Borneo .....	..	..	..	..	..	1,057	2	374	14	1,567
Siam .....	12	3,640	..	2,414	..	2,059	6	360	8	3,573
Rio .....	9	1,702	..	2,680	..	2,786	31	5,706	9	957
Cochin China .....	3	163	..	1,158	..	800	4	1,200	6	1,645
Moulmein .....	..	..	..	..	..	..	3	269	4	589
Bangson .....	..	..	..	..	..	..	..	..	..	..
Malacca .....	42	4,299	..	4,829	..	11,236	103	14,416	34	3,207
Penang .....	48	5,783	..	3,390	..	3,560	18	3,161	68	8,018
Other Ports .....	0	1,704	..	5,138	..	573	8	1,022	10	1,461
TOTAL .....	367	117,000	410	131,823	419	113,539	429	119,228	474	136,349

## EXPORT TONNAGE—(continued).

C O U N T R I E S.	1834—35		1835—36		1836—37		1837—38		1838—39	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Great Britain .....	32	9,432	25	7,310	29	8,398	34	6,791	34	10,354
Continental Europe .....	6	1,228	7	1,754	1	305	4	1,044	4	1,295
America .....	1	450	7	2,147	13	4,450	4	1,094	3	683
Isle of France .....	..	..	2	506	..	..	6	1,162	6	2,259
Bourbon .....	1	120	1	214	1	242	..	..	178	61,618
New South Wales .....	2	357	2	394	9	897	..	194	..	..
Cape of Good Hope .....	..	..	1	218	..	..	..	..	..	2,009
Ceylon .....	2	530	2	147	2	769	..	..	32	2,243
Bombay and Malabar Coast.	26	16,319	24	16,704	38	19,693	32	18,280	4	847
Madras and Coast .....	6	3,032	10	3,771	6	3,238	7	3,261	33	20,843
Calcutta .....	54	18,108	58	17,131	61	22,891	49	16,655	14	3,700
China .....	127	61,762	134	66,073	132	67,646	105	52,943	14	3,427
Java .....	75	17,025	62	11,062	74	13,823	58	10,282	33	3,101
Manilla .....	14	2,737	13	1,854	11	2,086	13	5,481	46	16,149
Arabia .....	3	964	3	1,378	1	150	4	1,190	9	930
Sumatra .....	17	3,433	12	2,759	13	3,288	13	3,430	6	1,188
Borneo .....	16	2,218	17	2,063	6	1,487	10	1,369	10	3,757
Siam .....	6	1,628	6	2,668	14	3,267	14	2,789	2	750
Rio .....	16	3,219	12	2,600	5	533	19	2,514	26	5,893
Cochin China .....	1	230	6	1,686	5	1,400	2	740	3	1,277
Moulmein .....	3	310	7	2,214	4	1,910	2	315	..	..
Bangson .....	..	..	..	..	..	..	..	100	1	73
Malacca .....	33	3,945	33	5,390	33	3,680	31	3,588	93	12,364
Penang .....	62	7,018	34	9,565	70	10,020	111	15,304	57	11,439
Other Ports .....	6	1,420	17	2,623	9	1,750	5	475	6	2,313
TOTAL .....	515	155,471	523	165,417	537	166,305	514	149,565	576	137,788



STATEMENT of the Number and Tonnage of Native Vessels (Prahus and Junks) which have Imported at Singapore during the following Official Years.

C O U N T R I E S.	1829-30		1830-31		1831-32		1832-33		1833-34			
	Vessels.		Tons.		Vessels.		Tons.		Vessels.		Tons.	
	number.	number.	number.	number.	number.	number.	number.	number.	number.	number.		
China.....	11	2,535	94	4,429	24	4,234	7	1,247	27	4,241		
Cochin China and Cambodia.....	40	4,467	15	1,442	25	2,015	17	598	49	5,010		
Java.....	69	3,925	77	4,405	45	5,167	48	2,347	72	2,986		
Sumatra.....	276	3,123	292	2,951	350	2,513	810	2,551	814	3,744		
Rhio.....	316	4,108	263	3,957	301	3,458	251	3,182	301	3,613		
East Coast Peninsula.....	114	2,321	152	2,738	123	2,740	143	2,697	72	1,059		
West Coast Peninsula.....	205	1,908	219	1,117	89	625	35	474	45	241		
Siam.....	31	8,933	33	5,848	34	4,333	37	4,397	34	5,799		
Borneo.....	179	3,378	141	3,740	132	3,261	96	3,201	130	3,095		
Celebes.....	61	1,543	69	1,699	84	747	61	1,812	55	1,243		
Bally.....	36	790	60	1,556	40	827	46	964	63	1,668		
Neighbouring Islands.....	974	1,586	810	2,151	170	1,531	185	1,623	220	2,075		
Malacca.....	59	2,266	57	2,418	92	2,771	78	2,776	60	2,568		
Penang.....	25	1,230	18	1,378	15	1,188	3	473	8	430		
<b>Total.....</b>	<b>1765</b>	<b>37,921</b>	<b>1743</b>	<b>22,372</b>	<b>1748</b>	<b>36,887</b>	<b>1506</b>	<b>28,714</b>	<b>1590</b>	<b>34,077</b>		

STATEMENT of the Number and Tonnage of Native Vessels, &c.—(continued).

C O U N T R I E S.	1834-35		1835-36		1836-37		1837-38		1838-39			
	Vessels.		Tons.		Vessels.		Tons.		Vessels.		Tons.	
	number.	number.	number.	number.	number.	number.	number.	number.	number.	number.		
China.....	31	3,710	17	3,081	21	5,084	36	6,590	34	6,613		
Cochin China & Cambodia.....	37	2,497	33	2,289	16	1,608	49	3,113	70	4,469		
Java.....	43	3,098	46	2,458	22	3,628	74	4,713	55	3,538		
Sumatra.....	277	5,129	339	3,083	860	3,555	492	2,736	496	4,386		
Rhio.....	278	4,107	294	3,762	321	4,288	352	3,289	375	4,110		
East Coast Peninsula.....	71	1,521	70	1,486	80	1,506	90	1,538	129	2,148		
West Coast Peninsula.....	40	856	39	435	100	838	165	796	127	525		
Siam.....	30	8,602	22	4,604	23	6,322	28	5,354	23	5,219		
Borneo.....	123	2,427	152	2,668	134	4,238	102	2,202	107	3,394		
Celebes.....	68	1,743	87	2,456	83	2,240	102	2,865	122	3,303		
Bally.....	27	1,032	17	1,566	75	1,850	92	2,554	63	1,218		
Neighbouring Islands.....	150	1,500	160	1,645	231	1,997	251	2,295	340	2,205		
Malacca.....	70	2,408	62	2,231	62	2,494	230	3,375	239	4,030		
Penang.....	8	455	6	437	6	383	4	168	7	282		
<b>Total.....</b>	<b>1484</b>	<b>37,321</b>	<b>1444</b>	<b>26,346</b>	<b>1,064</b>	<b>29,322</b>	<b>1,826</b>	<b>44,378</b>	<b>2,020</b>	<b>48,514</b>		

STATEMENT of the Number and Tonnage of Native Vessels (Prahus and Junks) which have Exported at Singapore during the following Official Years.

C O U N T R I E S.	1829-30		1830-31		1831-32		1832-33		1833-34			
	Vessels.		Tons.		Vessels.		Tons.		Vessels.		Tons.	
	number.	number.	number.	number.	number.	number.	number.	number.	number.	number.		
China.....	12	2,269	23	3,743	22	4,102	13	2,679	9	1,447		
Cochin China and Cambodia.....	20	6,114	19	1,795	25	3,866	26	3,297	27	1,966		
Java.....	10	655	78	4,373	13	568	8	467	44	2,120		
Sumatra.....	362	3,323	340	2,708	808	3,588	470	3,432	397	3,969		
Rhio.....	394	6,341	233	3,134	306	4,701	302	4,338	294	3,653		
East Coast Peninsula.....	28	1,638	121	2,201	112	1,495	111	2,037	76	1,503		
West Coast Peninsula.....	162	1,132	199	971	70	317	40	467	26	326		
Siam.....	44	8,122	20	4,634	29	4,313	37	3,590	17	2,357		
Borneo.....	129	2,255	127	3,979	120	3,268	73	1,704	148	3,231		
Celebes.....	81	1,918	73	1,795	16	1,402	97	1,983	103	2,641		
Bally.....	36	681	65	1,174	41	1,080	37	1,113	53	2,043		
Neighbouring Islands.....	233	1,785	244	1,885	140	1,495	187	2,015	214	2,654		
Malacca.....	36	2,532	22	2,261	101	2,980	82	2,181	68	2,029		
Penang.....	27	1,364	18	1,998	17	1,361	3	725	5	447		
<b>Total.....</b>	<b>1670</b>	<b>34,020</b>	<b>1570</b>	<b>33,564</b>	<b>1328</b>	<b>24,020</b>	<b>1299</b>	<b>30,178</b>	<b>1480</b>	<b>25,877</b>		

## STATEMENT of the Number and Tonnage of Vessels, &amp;c —(continued)

COUNTRIES	1834-35		1835-36		1836-37		1837-38		1838-39	
	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons	Vessels	Tons
	number	number	number	number	number	number	number	number	number	number
China	19	3,000	18	3,531	17	75	27	508	3	5
Cochin China and Cembaja	30	2,14	16	1,166	34	2,09	30	1,820	40	3
Java	29	2,435	26	1,127	21	1,114	31	3,223	48	2,021
Sumatra	403	3,36	288	3,841	33	3,428	409	3,16	44	4,100
Phu	363	4,077	38	4,75	379	5,143	291	4,01	383	4,2
East Coast Peninsula	58	1,026	62	1,121	44	1,011	13	447	12	2-0
West Coast Peninsula	28	320	35	34	712	175	215	21	13	37
Siam	24	4,642	31	5,327	31	5,199	31	5,990	17	3,92
Borneo	109	3,21	160	1,82	123	3,449	93	2,114	98	3,152
Celebes	79	2,395	143	3,010	17	2,8	131	1,97	110	1,000
Bally	18	340	63	1,391	7	130	55	2,379	60	1,8
Neighbouring Islands	221	2,806	177	1,494	393	2,440	315	2,123	301	2,183
Malacca	33	2,836	63	9,918	138	3,101	263	3,696	305	3,3
Penang	39	573	9	662	12	326	5	57	12	3,2
<b>Total</b>	<b>1418</b>	<b>33,658</b>	<b>1399</b>	<b>34,932</b>	<b>2065</b>	<b>38,125</b>	<b>3094</b>	<b>42,301</b>	<b>2126</b>	<b>41,436</b>

THE following is a Summary of the Shipping Trade, for a Series of Years  
NATIVE VESSELS

YEARS	ENTERED		CLEARED	
	vessels	tonnage	vessels	tonnage
1820	1,65	3,011	15	21,524
1831	1,43	3,132	15	21,46
1832	1,43	3,486	1528	34,026
1833	1,566	28,114	1493	30,15
1834	1,590	34,927	1460	32,87
1835	1,144	3,521	1,118	35,468
1836	1,444	36,346	17,09	34,7
1837	1,44	39,332	20,65	38,026
1838	1,800	41,278	2094	43,471
1839	2,30	43,514	2136	41,126
1842	2400	64,208	214	35,1

## SQUARE-RIGGED VESSELS

YEARS	ENTERED		CLEARED	
	vessels	tonnage	vessels	tonnage
1830	204	11,219	377	117,909
1831	406	128,105	410	131,39
1832	413	124,225	419	115,25
1833	420	130,413	429	111,25
1834	473	13,369	474	136,347
1835	517	120,513	515	135,11
1836	539	1,032	533	10,412
1837	441	1,138	477	1,309
1838	530	150,3	514	1,5
1839	574	178,3	50	1,3,57
1842	670	26,35	514	26,1,3

VALUE of the Imports and Exports in the Year 1842—43.

MONTHS.	BY SQUARE-RIGGED VESSELS.		MONTHS.	BY NATIVE CRAFT.	
	Imports.	Exports.		Imports.	Exports.
	Spanish dollars.	Spanish dollars.		Spanish dollars.	Spanish dollars.
May.....	811,899	772,712	May.....	823,794	562,298
June.....	777,995	634,543	June.....	647,237	724,916
July.....	1,474,739	806,795	July.....	150,483	133,852
August.....	713,312	679,571	August.....	116,229	114,074
September.....	674,164	548,448	September.....	107,374	109,976
October.....	1,243,291	737,268	October.....	148,408	140,183
November.....	709,813	745,627	November.....	180,158	103,071
December.....	920,780	857,697	December.....	94,592	82,289
January.....	466,659	337,467	January.....	41,940	48,785
February.....	749,551	656,603	February.....	173,840	200,548
March.....	1,261,779	854,467	March.....	89,323	111,916
April.....	995,779	796,625	April.....	189,766	138,773
	10,591,447	6,831,667		2,651,411	2,533,085
			Total.....	13,142,888	11,467,356

VALUE OF EXPORTS.				VALUE OF IMPORTS.			
COUNTRIES.	1840—41	1841—42	1842—43	COUNTRIES.	1840—41	1841—42	1842—43
	Sp. dirrs.	Sp. dirrs.	Sp. dirrs.		Sp. dirrs.	Sp. dirrs.	Sp. dirrs.
Great Britain.....	2,212,937	1,739,140	1,875,406	Great Britain.....	2,054,959	2,581,374	2,527,377
Foreign Europe.....	118,443	141,137	285,317	Foreign Europe.....	327,745	343,971	833,092
United States.....	90,049	43,809	63,243	United States.....	29,564	26,774	75,782
Mauritius and New South Wales.....	393,939	165,090	273,628	Mauritius and New South Wales.....	60,153	82,903	54,561
Calcutta.....	1,074,918	1,260,211	1,465,320	Calcutta.....	2,861,367	3,446,145	2,977,305
Bombay and Coast.....	169,261	165,572	183,099	Bombay and Coast.....	751,524	348,991	715,154
Bombay.....	629,052	763,941	529,267	Bombay.....	742,873	817,115	410,946
Arabia.....	39,259	53,475	117,667	Arabia.....	16,615	11,119	27,476
Manilla.....	237,587	137,247	127,315	Manilla.....	251,729	212,642	224,298
Ceylon.....	138	2,239	6,498	Ceylon.....	3,400	3,823	83
China.....	2,862,872	3,445,292	3,822,492	China.....	2,142,504	1,947,384	1,990,810
Java.....	546,429	427,471	451,656	Java.....	1,143,029	698,623	1,130,573
Rhin.....	217,596	260,193	144,564	Rhin.....	180,960	141,922	141,767
Siam.....	359,369	469,195	357,492	Siam.....	226,341	412,067	260,115
Cochin China.....	392,680	248,224	227,546	Cochin China.....	243,321	208,481	234,785
Sumatra.....	211,866	328,136	186,222	Sumatra.....	341,296	246,266	284,911
East Coast Peninsula.....	347,426	393,463	434,402	East Coast Peninsula.....	335,150	454,667	411,250
West ditto.....	21,690	11,914	1,034	West ditto.....	16,131	11,221	2,150
Celebes and other Eastern Islands.....	238,117	343,823	192,019	Celebes and other Eastern Islands.....	246,074	227,559	113,709
Borneo.....	263,187	318,946	226,627	Borneo.....	252,919	291,090	261,194
Bally.....	200,073	213,079	189,233	Bally.....	162,780	182,520	183,293
Neighbouring Islands and other places.....	127,264	85,141	161,449	Neighbouring Islands and other places.....	141,320	128,317	109,771
Exports to Penang.....	16,937,207	16,543,548	16,783,214	Imports from Penang.....	13,247,127	13,004,629	12,455,231
to Malacca.....	600,020	..	473,516	from Malacca.....	659,661	..	497,103
	270,163	..	129,064		386,184	..	219,284
Total.....	11,006,322	..	11,386,138	Total.....	14,164,072	..	13,128,868

"Singapore derives its importance solely from being an *entrepôt* for the commerce between Eastern and Western Asia, and also between the latter and Europe. For this it is admirably situated by its geographical position, being in the direct track of vessels going betwixt the Indian and Chinese Seas, and in the immediate vicinity of the Malay Peninsula, and the richest of the Indian islands. There is scarcely a port whose trade is so diversified as that of Singapore. The chief Asiatic productions to be found in its market are gold-dust, pepper, Banca tin, betel-nut, edible birds' nests, coffee, raw silk,

sugar, tortoise-shell, bêche de-mer,\* cassia, sago, ebony, gambier or catechu, gunnies, † rattans and a multitude of other articles, the produce of the Eastern Islands Siam Annam, and the Philippines, which are re exported principally to England, China, and India in exchange for British cottons, woollens, iron, hardware, fire-arms, Chinese articles, Indian piece goods, opium, &c

“There are a great number of sago manufactories on the island, which afford employment to several hundred Chinese manufacturers The sago is imported in its rough state from Borneo The total quantities exported from the island were, in

	1838		1839
Sago Flour	20 404 piculs		28 290 piculs
Sago Pearl	62,924		56 036

“18,103 piculs of pearl sago and 28,030 piculs of flour sago were exported to England in 1840—41, 774 piculs of pearl and 200 of flour to foreign Europe, 242 of pearl to the United States, 320 to Mauritius and Australia, 1765 to Calcutta 356 to Madras, 639 to Bombay 233 to Manila and 744 to China

“The extent of the commerce with different countries will be seen by a reference to the following return of the comparative statement of the trade of Singapore, imports and exports, during the past five years

“The Official Report of the Trade of Singapore for the official year 1842 43, is compiled with great care from the vouchers furnished by the merchants and traders, but it is believed that the actual amount of business transacted exceeds considerably what is shown by these tables There is an apparent decrease in the trade, attributed to the diminished importation of two articles, viz, opium and cotton—the general trade has not diminished, and with China, where the greatest fears were entertained of a falling off, there is a decided improvement on the whole This report is condensed as follows in the *Singapore Free Press*

“The value of imports into Singapore for the official year ending the 30th of April, 1843 (exclusive of the intermediate trade with Penang and Malacca), aggregated 1,243,251 dollars, exhibiting a decrease compared with the preceding year of 659,269 dollars This decrease is attributable to a falling off in the trade with the ports of Calcutta, Bombay, Siam, and Celebes

“The exports from Singapore for the same period amounted in value to 10,783,324 dollars, showing an increase over last year of 237,812 dollars

“The whole imports and exports for the period under notice were, 23,218,575 dollars, and the intermediate trade with Penang and Malacca, during the same period, netted 1,401,668 dollars, making the entire value of the trade, 5,535,565<sup>l</sup> sterling This amount is exclusive of the value of goods transhipped in the harbour, which, from the official statements, appears to have been considerable

“The yearly-increasing extent of the commercial intercourse with Great Britain, both as regards value and extent, is calculated to afford much gratification In cotton goods, which forms the most considerable article of import from Great Britain, a considerable increase was reported last year, which has continued during this, and the like is the case with the general trade, and especially in the staple article of cotton twist

“The imports from Great Britain in the official year 1842 43, amounted to 2,847,577 dollars, exhibiting an increase over the previous year of 166,203 dollars The principal

\* Bêche-de-mer called also tripong or sea cucumber, is a very peculiar kind of sea-slug (*Holothurion*) which after being gutted pressed dried in the sun and smoked, is regarded by the Chinese as a luxury much in the same way in which we regard caviare It is carried to China from almost every island of the Eastern Archipelago from Australia and of late from Mauritius and Ceylon The value varies according to the quality, from six up to fifty dollars per picul and the natives alone, for the most part are judges of its worth The principal importation into China is by the junks and the quantity is so considerable that the fishery of it especially on the coast of New Holland, where it abounds, might probably be entered into with advantage by Europeans

† A strong coarse fabric used in matting bags or sacks

articles imported consisted of cotton twist 7726 piculs \* valued at 327,023 dollars, cotton and woollen goods, 404,901 pieces, 12 478 corges † 52,218 dozens—long elts, 5280 pieces striped lists 1858 pieces camlets, 2055 pieces—caps, blankets, &c, altogether of the estimated value of 1,622,627 dollars, iron, steel, and other metals, 121,547 dollars iron guns, muskets, fowling-pieces, and other munitions of war, 61,300 dollars, flint stones, 18,724 piculs, and gunpowder, 2777 piculs, together with various other articles

The exports to Great Britain during the same period, amounted in value to 1 405 400 dollars, exhibiting a decrease, compared with the preceding year, of 324,740 dollars. In the articles of gambier tea and tin, there is noticeable a considerable increase. The principal articles exported during this period were, gambier 125,033 piculs sago, pearl, and flour, 22 471 piculs, pepper, 13,753 piculs tea, 17,017 piculs, tin 10 215 piculs, camphor 1911 piculs, and antimony ore, 8286 piculs

The net imports and exports between the two places aggregated 4,252,977 dollars, being nearly one sixth of the entire trade of the port. During the same period, 114 British registered vessels, amounting to 37,010 tons, arrived from and departed for Great Britain being a considerable increase over the previous year

"The magnitude and importance of the commercial intercourse with the Mother Country is sufficiently obvious from the preceding statements, and as there can be no doubt that it is in a great measure owing to the entire freedom from restrictions of any kind on commerce which prevails at Singapore, it is to be hoped that no such measures may ever be imposed to check or arrest the progressive advancement of this settlement

**CONTINENTAL EUROPE**—The trade with Continental Europe has, as was anticipated last year increased for, while the imports then amounted to 243,971 dollars, they have risen in the official year 1842 43, to 353 002 dollars. During this latter period, the principal imports were arms, valued at 15,872 dollars beer, wines, and spirits, 35,737 dollars cotton and woollen manufactures, 45,766 dollars glass ware, 24,882 dollars, metals, 40 752 dollars, and specie equivalent to 40 330 dollars. There appears substantial ground to believe that the English merchant and manufacturer will have to encounter powerful and successful competition from Belgium, as it appears that the woollens from that country are generally of equal, if not superior texture, to those usually sent out from England, and more reasonable in price, owing no doubt, to the greater cheapness of the cost of production. The Belgian manufacturer will find in China an ample field for the disposal of his goods as soon as the trade of that vast empire shall be fully thrown open to the enterprise and capital of the commercialists of Europe

The exports from Singapore to Continental Europe also exhibit an increase over the preceding year of 139,180 dollars. The articles exported, consisted of, cassia, 2252 piculs sugar 3637 piculs pepper, 11,809 piculs tea, 2680 piculs, tin, 3855 piculs and other minor articles. During this period, twenty eight vessels of the burden of 9073 tons arrived from and departed for, foreign Europe, principally under the French, Belgian, Hanburg, Bremen, and Danish flags

**UNITED STATES OF AMERICA**—The trade with the United States has improved during the official year 1842 43, but it is still very inconsiderable, the whole imports being limited to 75 782 dollars, and the exports, 89,242 dollars. The two principal articles of import were cotton goods, amounting to 13,070 pieces, valued at 34,358 dollars and lead, 2688 piculs, 15,972 dollars. The exports consisted of sago, spices, tea, tin &c

**MAURITIUS, AUSTRALIA, AND CAPE OF GOOD HOPE**—The value of the imports from these places is, a might be expected, very insignificant, amounting to only 25,960 dollars, the most important article being provisions. The exports are more considerable netting 978 005 dollars, showing an increase over the preceding year of 83 518 dollars. The chief articles were coffee 7082 piculs rice, 3964 piculs, sugar 31,174 piculs tea 119 boxes and 2883 piculs

It appears that during this year, several vessels have gone from Singapore to the

\* At a common Chinese weight of 100 catties or 1600 taels, equal to 133½ lbs avoirdupois  
† A score

Isle of France with Chinese coolies. These men exhibited no reluctance, but the reverse, to proceed to that colony. They usually enter into a written engagement, by the terms of which they bind themselves to serve for two years, receiving five current dollars a month of wages, with a daily allowance of two pounds of rice, a quarter of a pound of salt-beef, pork, or fish, and two jackets and drawers and a blanket yearly. They are likewise provided with medicines and medical attendance at the expense of their employers.

"CALCUTTA.—The commerce with Calcutta is of great importance and extent, and of the most valuable description. The imports for the year ending April, 1843, amounted to 2,927,305 dollars, showing a decrease, as compared with 1841-42, of 519,240 dollars. This is mainly attributable to the diminished import of the article opium. Of this drug, 7890 chests were imported during 1841-42, whereas, in the succeeding year, the number reported at the Registry Office, was only 4558 chests. This decrease has, no doubt, arisen from a greater quantity than formerly having been sent direct from India to China since the peace—no doubt under the expectation of finding in Hong kong a nearer and more convenient depot than Singapore. The most important articles of import were, cotton, 4337 bales, rice, 8871 bags, wheat, 7208 bags, gunnies, 475,050 opium, 4558 chests. The exports amounted to 1,565,329 dollars, exhibiting an increase of 285,118 dollars over 1841-42. The most prominent articles of export were, gold-dust, 13,912 bunkals,\* valued at 420,100 dollars, bullion and specie, equal to 770,884 dollars, cigars, 8,813,500 nos, in value, 68,488 dollars, pepper, 16,067 piculs, tea, three packages, 140 boxes, and 2088 piculs, and tin, 2881 piculs.

"The fact of so large a portion of the returns being made in the precious metals, shows that the trade is highly advantageous to Calcutta, and that even were Continental India required to defray a share of the expense of the government at Singapore, the Indian revenue would be more than remunerated by the great vent which is afforded by this port to the products of Continental India, especially of the article opium.

"MADRAS AND COAST OF COROMANDEL.—The traffic with the coast is on the decline, and has been so for several years past, there appears little likelihood of its experiencing any material improvement, since the former extensive and lucrative trade in Madras piece goods, which were the principal imports from the coast, has been nearly destroyed by the British article, which has been making such rapid progress both in the Straits and India as to be gradually driving the Indian manufacture from the field. The imports for the year 1842-43 amounted to 215,154 dollars, exhibiting a decline as compared with the previous year of 133,757 dollars. The two principal items were cotton, 4942 bales, and cotton piece goods 16,841 corges. The exports do not show an encouraging aspect. In 1841-42 there were 195,852 dollars, while last year they only attained to 152,069 dollars. The most important export was specie to the extent of 76,212 dollars.

"BOMBAY.—A very serious decline is apparent in the imports from Bombay, as will be seen from the comparison of the two last official years.—in

1841-42 they amounted to	817,115 dollars
1842-43	410,876 "

"This decrease is chiefly from the diminished importation of two articles, viz cotton and Malwa opium, the former having declined from 11,298 to 9363 bales, and the latter from 1893 to 393 chests.

"The exports for the year 1842-43 were 520,867 dollars, showing a decrease from the previous year of 183,081 dollars. This decline appears to have arisen chiefly on the articles of sugar and spices. Of the former only one-half of the quantity exported in 1841-42 was sent last year—this is to be attributed to sugar being now sent direct from Siam to Bombay, instead of being landed at Singapore as formerly. The principal exports during the past official year were, alum, 2925 piculs, benzoin, 1021 piculs, camphor, 454 piculs, gambier, 3218 piculs, gold dust, 826 bunkals, valued at 25,251 dollars, raw silk, 270 piculs, sugar, 41,783 piculs, cigars, 2131 boxes, tea, 717 piculs, tin, 2200 piculs, and specie equivalent to 55,834 dollars.

\* Bunkal, a weight of two dollars, or 882 troy grains.

"ARABIA.—The whole imports and exports in 1842-43 aggregated 145,148 dollars, showing an increase over the previous year of 38,148 dollars. The commerce is solely carried on by vessels which annually proceed to Arabia with Mahomedan pilgrims, who congregate here from Java and the surrounding Malayan States.

"MANILLA.—It is gratifying to observe an improvement in the commerce with Manilla compared with the previous year. During the past official year the gross imports were valued at 323,932 dollars, being an increase of 111,090 dollars. The most important articles of import consisted of hemp and rope, 2014 piculs; cigars, 20,770,100; sugar 6546 piculs; tea, 585 piculs; and sapan-wood, 19,806 piculs: it would also appear 5300 pieces of British piece goods were imported, probably on account of their being unsuitable for the Manilla market. The exports have decreased 9932 dollars, as in the year 1841-42 they amounted to 187,247 dollars, and in the past official year they were 127,315 dollars. The chief articles were opium, 49 chests; iron, 3762 piculs; and British cotton goods, 88 dozen, 60 corges, and 4189 pieces.

"CEYLON.—The trade between Singapore and Ceylon is nearly extinct, the only item of import being 170 piculs of ebony, valued at 85 dollars. The exports amounted to 6,498 dollars, consisting of numerous small articles.

"RANGOON AND MOULMEAN.—The increase in the imports last year amounted to 19,401 dollars, which, considering the whole extent of trade, is satisfactory. In 1841-42 the imports amounted to 27,414 dollars and in 1842-43 to 46,841 dollars. They consisted of gram 1915 bags; paddy, 2800 piculs; wheat, 3000 bags; rice, 3950 piculs; timber valued at 22,864 dollars. The exports have declined from 20,445 dollars to 15,034 dollars. They principally consisted of opium 10½ chests; muskets, 640, and specie = 2227 dollars.

"CHINA.—The trade between this port and China, it is gratifying to find, continues improving, the imports amounted to 1,990,810 dollars, being an excess of 43,506 dollars over the previous year, tending to show that the falling off in that year arose from temporary causes, and not from any permanent decline in the trade. There is a considerable increase in the articles of tea, cassia, camphor, crockery, tobacco, bullion, and copper cash; on the other hand, there has been a falling off in raw silk from 1095 piculs to 253. The principal imports were cotton and silk goods, 3467 pieces and 16 cases; nankins, 74,950 pieces; cassia, 11,696 piculs; camphor, 2185 piculs; crockery valued at 168,259 dollars; raw silk, 253 piculs; sugar, 5,889 piculs; tea, 74,205 boxes, and 6335 piculs valued at 675,964 dollars; tobacco, 2740 baskets; specie and bullion equivalent to 418,195 dollars. It may be noticed that a large portion of the tea imported was of a very inferior quality, and caused most serious, and in many cases, ruinous losses to the shippers, principally Chinese merchants. This particular branch of the junk trade may be expected to decline rather than augment. The exports to China amounted to 3,627,802 dollars, being double those to any other country or state, not even excepting Great Britain. They exceed those of the previous year by 669,600 dollars. The principal exports were, betel-nut, 20,291 piculs; bêche de mer, 5070 piculs; birds' nests, white and black, 343 piculs; cotton, 27,192 bales and 50 piculs; cotton twist, 1799 piculs; cotton piece goods, 88,288 pieces, 505 yards, 36 corges, 100 dozens; iron, 10, 814 piculs; opium, 3436 chests; rattans, 34,520 piculs; sea-weed, 5377 piculs; pepper, 18,602 piculs; tin, 2986 piculs; woollens to the value of 121,515 dollars; specie, equivalent to 22,542 dollars. During the official year 1842-43, 181 junks equal to 22,542 tons arrived from different ports on the coast of China with cargoes and emigrants; showing an increase over the previous year of 31 junks and 4142 tons.

"JAVA.—The imports of the official year 1842-43 exceed those of the preceding year by 209,450 dollars, the gross amount being 1,108,273 dollars. The imports in the most important items were, birds' nests, 47½ piculs; benjamin 1181 piculs; coffee, 5804 piculs; cotton goods, Malay, 2423 corges, and 8000 dozens; rice, 194,817 piculs; copper, 673 piculs; maca, 72½ piculs; nutmegs, 135½ piculs; cloves, 150 piculs; spirits valued at 49,411 dollars; sugar, 17,548 piculs; tin, 4198 piculs; tobacco, 712 corges, and 12 piculs; woollens valued at 46,032 dollars; and specie equivalent to 196,527 dollars. The exports aggregated 451,056 dollars, showing an increase of 28,579 dollars over the preceding year. The principal articles were, country cotton goods

9173 corges, and China cotton goods 152 corges, China crockery valued at 52,440 dollars opium, 66 chests, raw silk, 55 piculs tea, 10,258 boxes, and 443 piculs China paper valued at 22,520 dollars, and specie equal to 15 969 dollars. The small quantity of grain produced at Singapore, hardly equal to the consumption of the population for one week, renders it exceedingly desirable to have the means at hand of obtaining a large and constant supply—this Java furnishes, and this alone renders the trade with that island of considerable importance and interest. If the returns for 1842-43 are at all correct, 194,817 piculs were imported during that year, equal to 25,975,600 lbs., which, estimating each adult to consume 730 lbs., per annum would furnish a supply for 35,583 adults. The whole population of Singapore is supposed to be about 50,000.

"**RHIO**—The imports were 145 767 dollars showing a trifling decrease of 150 dollars, contrasted with the previous year. The chief imports were, gambier, 36 658 piculs, pepper, 2910 piculs, and rice, 4060 piculs. Rhio is the only place from whence gambier is imported into Singapore, so that there would be little difficulty in ascertaining the quantity produced in the island during the past seven years. The quantity now grown and manufactured is certainly not less than 70,000 piculs. In 1841-42, 93,342 piculs were exported, and 18,644 piculs were imported, leaving 74 695 piculs to be accounted for. In the past official year 148,746 piculs were exported, and 38,595 piculs were imported, showing a difference of 110,451 piculs. It is, however, very probable that a quantity was in hand, or in progress of shipment, when the official returns were made up. The exports have declined considerably, having fallen from 200,103 dollars in 1841-42, to 144,504 dollars in the succeeding year. The decrease appears to be in opium, sugar, and salt. Rhio may be considered as a free port, as there are neither imports or export duties strictly so called.

"**SIAM**—A considerable decrease in the imports from Siam amounting to 151,888 dollars, has been experienced. They amounted during the period under review, to 260,115 dollars. This diminution is attributed to a falling off in the importations of oil, rice, and sugar.

ARTICLES	1841-42		1842-43	
	Quantity	Value	Quantity	Value
Oil	piculs 9 186	ruppes 14 700	piculs 1 370	dollars 1 1/45
Rice	17 900	24 72	5 350	11 050
Sugar	54 948	294 968	25 440	ruppes 125 385

"It is probable that the falling off in the import of sugar arose from its being sent direct to Bombay, as before mentioned. Besides the three articles above noticed the other imports were, hardware, valued at 13,413 dollars, salt, 51 520 piculs sticklac 2297 piculs, ten, 1229 boxes, 132 piculs, &c. The exports amounted to 357,492 dollars, being a decline to the extent of 51 614 dollars from the previous year. The exports consisted, among other things of cotton twist, 581 piculs, British cotton goods 500 corges, 61,466 pieces, and 200 dozens, cotton goods country, 680 corges China ditto, 4044 pieces, iron and steel, 2642 piculs, and 259 kegs, raw silk, 41½ piculs, specie and bullion equal to 89,835 dollars.

"**COCHIN CHINA**—There appears to be an improvement in the imports from this country, there being an excess over the previous year to the extent of 46,301 dollars. The total amount of imports during the official year 1842-43, was 254,785 dollars. They consisted chiefly of raw silk, 149 piculs, rice, 12,010 piculs sugar 27,540 piculs and salt, 15,120 piculs. The exports, on the other hand, exhibit a decrease of 20,476 dollars. The gross exports during this period were, 227,848 dollars, consisting chiefly of cotton, 1084 bales and 985 piculs, British cotton goods 3588 pieces opium 263 chests, and woollens to the value of 25,378 dollars. During the same time, eighty two boats, equal to 4195 tons, arrived here from Cochin China.

"It was noticed in last year's report, how extremely liable the Cochin Chinese boats



were to be plundered, and their crews murdered or made slaves of by Malay and Chinese pirates, in consequence of their being entirely defenceless. During the past year many instances have occurred which too well justify the statement. It is hoped that the measures which government are contemplating will have the effect, during the approaching season, of materially diminishing, if not altogether checking the evil, at least in the vicinity of our shores.

"**EAST COAST OF PENINSULA.**—The returns show a decrease in the imports of 41,637 dollars. The total imports were, 411,330 dollars; amongst which were comprised, gold dust, 7356 bunksals, valued at 223,193 dollars; pepper, 1555 piculs; tin, 6686 piculs; specie, equal to 42,021 dollars. The exports amounted to 454,962 dollars, showing an excess over 1841-42 of 61,478 dollars. They comprised cotton twist, 1512 piculs; British cotton goods, 17,430 pieces, and 644 corges; opium, 297 chests; specie, equal to 83,496 dollars, &c. During the year 1842-43, 336 boats, equal to 4393 tons, arrived at Singapore from the different ports on the east coast of the Malay peninsula.

"**WEST COAST OF PENINSULA.**—This commerce is by no means improving, the gross imports and exports for 1842-43 being only 3204 dollars.

"**CELEBES AND OTHER EASTERN ISLANDS.**—In the year 1841-42, the imports reported were equal to 327,552 dollars, and in 1842-43, they only amounted to 113,709 dollars, showing a decline of 243,843 dollars. Were the cause of this seemingly great falling off not of easy and satisfactory explanation, it would be calculated to excite fears as to the stability of this valuable branch of the commerce of the port. It is well known that the Bugese and other eastern traders come here with the southerly winds, trenching as close as possible upon the last of the monsoon. Whether the monsoon set in earlier last season, or the Bugese boats were later than usual in departing for Singapore, is not ascertained—twenty-seven boats only, however, succeeded in reaching Singapore; the rest were compelled, in consequence of adverse winds, to put into Java, where the Nacodahs sold their cargoes and purchased returns. It is said that the Dutch authorities considered it politic to exhibit unwonted liberality on the occasion, by a remission of the usual duties, no doubt as an inducement to the Bugese to resort to Java in future, instead of Singapore. It is extremely probable, however, that this encouragement, even if continued, will fail in producing the wished-for effect, as, from the absence of all restrictions, Singapore is deservedly held in high estimation by the Bugese and other traders from the Eastern Islands; and so long as the existing wise policy is adhered to, we may calculate on retaining the chief portion of the Bugese trade.

"We are glad to know, that this season there is no falling off in the number of the Bugese traders who generally resort to this port. The number of boats which have already arrived exceed 400, so that the Chinese and other native merchants, who chiefly transact the business with the Bugese, are in full activity. The present great scarcity of money, however, we are informed, is rather impeding the brisk exchange of commodities, owing to the difficulty thereby created to the native merchants, of obtaining from the European commission-houses the piece-goods which they barter with the Bugese for their imports. We also learn that the Bugese this year are, to a much greater extent than formerly, dealing directly with the European merchants, having, through some cause or other, lost their confidence in the native dealers."—*Singapore Free Press*, October 26.

"The exports amounted to 123,919 dollars, showing a decrease from 1841-42 to the extent of 225,405 dollars.

"**BOBATO.**—Although in the comparative abstract statement, there is an apparent increase of imports to the extent of 9275 dollars, there has been an actual decrease in the legitimate trade of 35,725 dollars—76 chests of opium, which went to swell the amount of imports, having been returned. The imports consisted of antimony ore, 7478 piculs; gold-dust, 4337 bunksals, valued at 126,652 dollars; rattans, 9050 piculs; specie, equal to 7395 dollars, &c. The antimony ore comes principally from Sarawak. The exports for the year 1842-43, amounted to 296,637 dollars, showing a decrease of 22,311 dollars. The most important were British cotton goods, 3908 corges, and 15 dozen; opium, 227 chests; tea, 1928 boxes, and 52 piculs; and specie, equal to 34,202 dollars.

"During the year 1842-43, 88 boats, equal to 2701 tons, arrived at this port from Borneo.

"**BALLY, LOMBOK, AND SARAWAK.**—The imports were 183,395 dollars, being a slight increase of 892 dollars over the previous year. They consisted of coffee, 1010 piculs; rice, 96,211 piculs; and tobacco, 2449 piculs. The gross value of the exports amounted to 199,333 dollars, being a decrease of 23,745 dollars from the preceding year. There were British cotton goods, 6193 pieces and 177 corges; opium, 217 chests; and copper tokens valued at 27,089. The trade during the past official year was carried on chiefly by square-rigged vessels. Twenty-eight native boats only arrived, whereas in 1841-42 there were 123: the same cause which prevented the Bugese reaching operated in the present case.

"**SUMATRA.**—The imports in the year 1842-43 amounted to 284,001 dollars—being an increase of 35,435 dollars. There were bees' wax, 611 piculs; benjamin, 852 piculs; betel nut, 9324 piculs; coffee, 2581 piculs; cotton, 3660 piculs; gold dust, 647 bunkals valued at 19,705 dollars; rice, 8153 piculs; pepper, 4987 piculs; raw sago, 201,910 bundles; and specie equal to 57,810 dollars, &c. The exports exhibit a decrease of 69,234 dollars, having amounted in 1842-43 to 188,922 dollars. The chief were British cotton goods, 5285 pieces and 336 corges; country ditto, 2116 corges; China crockery valued at 9609 dollars; raw silk, 43 piculs; copper tokens valued at 24,655 dollars; and specie equal to 80,866 dollars.

"**NEIGHBOURING ISLANDS AND OTHER PLACES.**—The value of the imports in 1842-43 amounted to 169,771 dollars, showing an increase of 41,254 dollars. They principally consisted of *bêche-de-mer*, 1214 piculs; gold dust, 665 bunkals, valued at 19,450 dollars; tin, 1488 piculs; oil, 2269 piculs; rice, 11,530 piculs; and specie equal to 29,817 dollars. The exports exhibit a still greater increase—the gross amount was 161,449 dollars, exceeding 1841-42 by 66,308 dollars. The chief articles were British cotton goods 3087 pieces and 90 corges; opium, 27 chests; sugar, 1292 piculs; and specie equal to 73,210 dollars.

"**PRINCE OF WALES' ISLAND AND MALACCA.**—The intermediate trade with Penang has materially declined, and the exports to Malacca have also fallen off.

I M P O R T S.			E X P O R T S.		
FROM WHENCE.	1841-42	1842-43	DESTINATION.	1841-42	1842-43
Prince of Wales' Island.....	dollars. 600,700	dollars. 497,709	Prince of Wales' Island.....	dollars. 641,170	dollars. 473,115
Malacca.....	304,450	219,594	Malacca.....	335,019	210,506
TOTAL.....	905,150	717,303	TOTAL.....	976,189	683,621

"*The Junk Season.*—The number of junks which have arrived this season, 1843, greatly exceed the arrivals last year at the same time. The arrival of emigrants has also been very large, being to the 19th instant 6883, of whom 1168 have come by square-rigged vessels—a new feature in the history of Chinese emigration—and 5725 by junks. The number of emigrants last year was about 1600, and the year before 7000; but judging from the number who have already arrived, we may anticipate that this season they will not fall much short of 9000. They are chiefly dispersed through the Straits' settlements and the neighbouring Dutch one at Rhio. In the Straits there will be an increased demand for labour for the sugar estates, which will absorb some of the surplus, and we understand that the cultivation of the gambier is being carried on in Johore rather extensively by the Singapore gambier planters. We do not know what number go to Rhio, but we should think that it cannot be on the increase, as we are informed most of the gambier and pepper plantations in the vicinity of Rhio have already been or will soon be exhausted and abandoned."

The following is the Total Number of Vessels which passed the Straits of Sunda during the Year 1844, which were signalised:—

COUNTRIES.		Vessels.	COUNTRIES.		Vessels.
		number.			number.
Dutch	.....	252	Brought forward	.....	613
English	.....	317	Danish	.....	4
American	.....	37	Spanish	.....	4
French	.....	32	Belgian	.....	3
Hamburgh	.....	15	Ships from Australia	.....	3
Swedish	.....	14	Russian	.....	2
Bremen	.....	6			
Carried forward	.....	613	TOTAL	.....	627

## TRADE OF SINGAPORE FOR 1846-47.\*

"CHINA.—The imports during 1846-47 amounted to 4,282,349 rupees, exceeding those of the previous year by 1,138,787 rupees. The improvement of the imports from China appears, however, to be more apparent than real. The increase is more than covered by two items—namely, excess of treasure and bullion over preceding year 1,220,136 rupees, and 200 chests of Turkey opium valued at 223,258 rupees. There was a great falling off in the articles usually imported by the junks, such as camphor, alum, China crockery, China piece goods, gold thread, silk, &c. The principal imports were China camphor, 5516 piculs; China crockery, valued at 285,523 rupees; raw silk, 323 piculs; tea, 22,295 boxes, 282 packages, and 292 piculs; joss sticks, valued at 110,180 rupees; alum, 9740 piculs; hardware, 44,497 rupees; China tobacco, 2708 baskets, and 370 boxes.

"The exports present a decline, having only amounted to 4,923,556 rupees, being a falling off from the previous year to the extent of 838,120 rupees. This arises from a diminished export from this to China of British cottons, flints, sapanwood, cotton, twist, copper, tin, lead, &c. The chief articles of export were—guns, 415; betel nut, 7602 piculs; birds' nests, 296 piculs; bêche de mer, 7521 piculs; cotton, 6594 bales; twist, 465 piculs; British cottons valued at 84,391 rupees; iron, 6961 piculs; tin, 1270 piculs; Bengal opium, 1834 chests; Malwa opium, 936 chests; rice, 41,358 piculs; rattana, 44,006 piculs; black pepper, 10,603 piculs; wookens, 62,346 rupees; Garro and Lakko wood, 4122 piculs; Sapan wood, 2567 piculs.

"Ninety-one junks, equal to 15,076 tons, arrived from China, being a decrease of thirty-one junks, and fifty-one tons. The number of emigrants from China during 1846-47, by junks were 7593, and by sixteen square-rigged vessels 1976—total 9569. The most industrious and healthy proceeded to Penang, Malacca, and elsewhere, in search of labour, the sickly, idle, and vicious, remained at Singapore.

"JAVA.—The imports amounted to 1,676,078 rupees, being a decrease of 133,423 rupees. This decrease appears to arise on the articles arrack, benjamin, coffee, Java piece goods, &c. The principal imports consisted of—arrack, 127,180 gallons, and 626 cases; Japan copper, 6577 piculs; Java, piece goods, 2003 cargoes; rice, 43,369 piculs; nutmegs and mace, 87 piculs; sugar, 17,217 piculs; Java tobacco, 20,322 baskets, and 168 piculs; treasure and bullion valued at 111,491 rupees.

"The exports amounted to 801,965 rupees, showing an increase of 11,036 rupees, arising on opium, tin, China crockery, &c. The chief exports were British piece goods, valued at 49,218 rupees; country ditto, 108,956 rupees; China crockery, 69,412 rupees; tin, 1873 piculs; Bengal opium, 49 chests; Turkey ditto, 30 chests; raw silk, 66½ piculs; tea, 3851 boxes, and 1189 piculs; wheat, 3982 bags; China paper, 24,092 rupees; bullion and treasure, 46,029 rupees.

"RUSSIA.—The imports amounted to 506,672 rupees, being an increase of 1836 rupees. The principal articles were, gambier, 27,657 piculs; black pepper, 17,603 piculs; white pepper, 1866 piculs; rice, 12,160 piculs; sugar, 3375 piculs.

"The exports amounted to 417,782 piculs, showing a decrease of 69,816 rupees. The chief exports were rice, 27,226 piculs; specie valued at 303,679 rupees.

\* Condensed in the Singapore Free Press, from Official Report.

"SIAM —The imports amounted to 406,432 rupees, showing a decrease of 51,813 rupees. The principal imports were sugar, 10,565 piculs gambouge, 385 piculs hard ware, 48,733 rupees, cocoa nut oil 1750 piculs, rice, 9176 picul- salt, 14,480 piculs, sticklac 1036 piculs, sapanwood, 10,050 piculs besides a large quantity of sugar, &c, trans shipped in the harbour.

"The exports amounted to 750,307 rupees, showing an increase of 152,903 rupees. The chief exports were bees' wax, 143 piculs, cotton twist, 1088 piculs, British piece goods, 256,615 rupees; country ditto, 47,085 rupees, raw silk, 54 piculs, specie, 220,402 rupees.

"Seventeen junks with an aggregate burthen of 4088 tons arrived from Siam, being an increase of three junks and 808 tons.

"The trade with Siam is capable of considerable increase, were our commercial relations with that country put on a better footing.

'COCHIN-CHINA —There is a falling off in the trade with this country.

	Imports	Exports
1845—46	619,001 rupees	762,601 rupees
1846—47	318,864 "	314,864
Decrease	300,137 rupees	447,736 rupees

"The principal imports consisted of, oil 1970 piculs, raw silk, 112 piculs, 34,080 piculs salt 12,160 piculs, sugar 6160 piculs.

"The principal exports consisted of British cotton, 41,135 rupees gambier 3520 piculs, opium, 145 chests, tea, 280 boxes and 1860 piculs.

"The following are stated to be the port dues levied on vessels trading at the port of Turon.

For a vessel of	30 to 36	candies in breadth	162	ligateens per candy.
do	26 to 27	do	144	do
do	14 to 25	do	126	do
do	11 to 13	do	81	do
do	9 to 10	do	63	do
Under	9	do	31½	do

"The value of the ligateen is fluctuating two are generally equivalent to a dollar. The candee is equal to eighteen French inches, or 19 <sup>10</sup>/<sub>100</sub> English inches.

'BORNEO —The imports from Borneo amounted to 791,903 rupees showing a decrease of 300,401 rupees chiefly in gold dust pepper rattans, Malay camphor, &c. The principal items were antimony ores from Sarawak, 1950 piculs bees wax 600 piculs bird s-nests, 275 piculs, black and 9 piculs, white Malay camphor 14 piculs rattans, 20,972 piculs sago, raw, 113,980 bundles, and 1100 piculs treasure and bullion, valued at 356,729 rupees.

"The exports were 889,982 rupees, showing a decrease of 59,645 rupees. The chief were —cotton twist, 57 piculs British piece goods 2,9541 rupees country do 174,730 rupees, China crockery, 17,628 rupees hardware 9148 rupees non 1147 piculs nankeen, 15,000 pieces opium, 123 chests rice, 12,121 piculs tokens, valued at 31,374 rupees bullion and treasure 96,064 rupees.

"One hundred and twelve boats, with an aggregate tonnage of 3044 tons, arrived from Borneo, being a decrease of ten boats, and 291 tons. A great increase of trade will, however, take place with Borneo from the thorough protection against the pirates, which the British naval and political station at the commanding port of Labuan will hereafter afford.

"BALLY, LOMBOK, and SUMBAWA —The imports amounted to 411,388 rupees showing a decrease of 148,902 rupees. The chief items were —white birds nests 4 piculs coffee, 3771 piculs rice, 38,632 piculs, tobacco, 2410 piculs copper tokens, 17,972 rupees, and specie, 66,640 rupees.

"The exports amounted to 432,017 rupees, showing a small decrease of 9818 rupees. The principal exports were —muskets, 97; British piece goods 70,266 rupees opium, 148 chests of Bengal, and 50 of Turkey, raw silk, 24 piculs and copper tokens, valued at 39,241 rupees.

"Eighty-eight boats, with a tonnage in all of 3356 tons, arrived from Bally, being three boats less than in the previous year.

"CELEBES.—There is a considerable falling off in the trade when compared with the preceding year; but if contrasted with the year 1844—45, there is a considerable increase. The returns of the trade for these three years are as follows:—

Y E A R S.	IMPORTS.	EXPORTS.
1844—45.....	rupees. 589,843	rupees. 588,385
1845—46.....	1,131,656	1,118,135
1846—47.....	783,429	786,430

"The principal imports, in 1846—47, consisted of:—bêche de mer, 2528 piculs; bees-wax, 233 piculs; coffee, 7146 piculs; country piece goods, 225,205 rupees; mother-o'-pearl shells, 2881 piculs; rice, 6090 piculs; tortoise shells, 101 piculs; treasure and bullion, 170,477 rupees.

"The exports of importance were arms, valued at 11,934 rupees; cotton twist, 1273 piculs; British piece goods, 231,103 rupees; country ditto, 34,389 rupees; gambier, 4668 piculs; hardware, 16,068 rupees; nankeens, 5000 pieces; opium, 102 chests; and copper tokens, 167,946 rupees. The number of Bugis boats which arrived here in each of the three following years were:—

	No.	Tons.
1844—45.....	94	8459
1845—46.....	145	3228
1846—47.....	110	3120

"SUMATRA.—The trade with Sumatra appears to have somewhat diminished. The following is the result compared with the previous year:—

	Imports.	Exports.
1845—46.....	703,054	524,825
1846—47.....	551,402	514,509
Decrease.....	151,652	10,318

"The principal imports consisted of beeswax, 451 piculs; betel-nut, 6400 piculs; benjamin, 2520 piculs; coffee, 1442 piculs; pepper, 1906 piculs; rattans, 6755 piculs; raw sago, 288,192 bundles; fish maws and shark fins, 262 piculs; treasure and bullion, 176,099 rupees.

"The most important exports were twist, 63 piculs; China crockery, 10,439 rupees; British piece goods, 98,301 rupees; country ditto, 105,030 rupees; hardware, 7258 rupees; opium, 41 chests; raw silk, 16 piculs; salt, 10,683 piculs; copper tokens, 37,695 rupees; treasure and bullion, 12,203 rupees; 507 native boats, with a tonnage of 5617 tons, arrived here, being an increase of 33 boats.

"EAST COAST OF THE MALAYAN PENINSULA.—A very considerable increase is observable under this head.

	Imports.	Exports.
1846—47.....	1,289,728 rupees	1,453,350 rupees
1845—46.....	1,129,270 "	1,160,054 "
Increase.....	110,458 rupees	293,298 rupees*

"The principal imports consisted of country piece goods valued at 42,459 rupees; hides, 826 piculs; pepper, 3116 piculs; salt, 25,340 piculs; tin, 4184 piculs; Garro wood, 403 piculs; bullion and treasure, 866,793 rupees.

"The principal exports appear to have been cotton twist, 2514 piculs; British piece goods and woollens, 166,637 rupees; country piece goods, 33,163 rupees; iron and steel,

\* The following exhibits this trade for seven years past.

Y E A R S.	Imports.	Exports.	Y E A R S.	Imports.	Exports.
1840—41.....	tons. 792,551	788,087	1844—45.....	1,173,748	1,114,956
1841—42.....	1,017,951	882,203	1845—46.....	1,129,270	1,160,054
1842—43.....	824,273	1,021,241	1846—47.....	1,289,728	1,453,350
1843—44.....	1,194,216	1,142,147			

11,566 rupees, opium, 483 chests, silk, 54 piculs, rice, 8750 piculs, tobacco, 49,269 rupees, specie, 139,127 rupees.

"WEST COAST OF THE MALAYAN PENINSULA — The imports and exports amounted to 72,675 rupees. The principal trade is with Penang and Malacca.

"NEIGHBOURING ISLANDS AND OTHER PLACES — The trade, contrasted with that of the preceding year, gives the following results —

	Imports	Exports
1846—47	330 116 rupees	364 752 rupees
1845—46	290 097	346 832
Increase	40 319	17 920

"The principal imports were bêche de mer, 1441 piculs, oil, 1970 piculs, raw sago, 125,500 bundles, coffee 493 piculs, birds nest 14½ piculs, tin 843 piculs.

"The exports consisted amongst others of silk, 19 piculs, opium, 69 chests, Bengal and 13 Turkey, British piece goods, 16,664 rupees, rice, 12,020 piculs, specie, 113,544 rupees.

"The amount of trade in 1846 47, by square rigged vessels and by native vessels is thus contrasted

	Imports	Exports
	rupees	rupees
By square-rigged vessels	21 135 695	16 544 890
By native boats junks &c	5 570 383	5 659 010

"PRINCE OF WALFIS ISLAND — There has been a considerable decrease in the trade with this place, arising no doubt from the revived direct trade between Penang and Great Britain. The total imports from Penang in 1846 47 amounted to 1,435 650 rupees, and of exports to 1,356,000 rupees. The decrease on imports amounted to 227,305 rupees, and on exports to 513,361 rupees.

"MALACCA — The trade with this quarter is improving. The imports amounted to 831,893 rupees, being an increase to the extent of 159,020 rupees. The principal import was tin, to the amount of 15,131 piculs, valued at 605,025 rupees, or about 60,000 sterling.

"Shipping — There is a decrease of 411 tons in importing in square rigged vessels, and a decrease of 1945 tons in native boats.

"In 1846 47 there arrived of—

	Vessels	Tons
Square-rigged vessels	730	222 325
Ditto ditto, junks, &c	2304	68,160

"The square-rigged craft are classified as follows —

DESCRIPTION	Total tonnage		DESCRIPTION	Total tonnage	
	Vessels	Tons		Vessels	Tons
American	number	number	Brought forward	number	number
Arabian	27	11 540	Portuguese	22½	491 3
Austrian	8	2,101	Portuguese	7	30
Belgian	1	330	Russian	1	600
Bremen	2	1 140	Spanish	1	330
Cochin Chinese	3	901	Siamese	11	4 408
Danish	8	1 450	Swedish	5	1 119
Dutch	7	2 135			
French	123	18,947			
Hamburg	14	4 244			
Native	21	4 008	British	230	1
		2,399		521	16 162
Carried forward	223	49 173	Total	730	222 325

There likewise arrived—

	number.
British men-of-war .....	16
Her Majesty's steam-vessels .....	1
East India Company's ditto .....	8
Dutch ditto .....	2

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COMPARATIVE Abstract Statement of the Trade of Singapore with the undermentioned Places, between the Official Years 1845—46 and 1846—47.

COUNTRIES.	I M P O R T S.					
	1845—46			1846—47		
	Merchandise.	Treasure and Bullion.	Total.	Merchandise.	Treasure and Bullion.	Total.
Great Britain.....	Co.'s Re. 7,053,690	74,436	7,328,126	Co.'s Re. 5,888,091	23,778	6,111,870
Continental Europe.....	846,859	28,616	875,475	1,157,310	16,391	1,173,701
United States.....	48,593	..	48,593	58,740	..	58,740
New South Wales.....	129,631	2,293	130,924	49,823	..	49,823
Mauritius.....	1,987	4,159	6,146	15,982	6,608	21,590
Corrals.....	589	3,345	3,934	7,994	..	7,994
Calcutta.....	4,786,809	28,411	4,815,220	6,161,722	790	6,152,512
Madras and Coast.....	160,730	323	160,953	331,879	..	331,879
Bombay and Coast.....	697,819	9,246	707,065	619,258	48,920	668,178
China.....	3,758,419	888,722	4,647,141	2,272,343	2,055,106	4,327,449
Manilla.....	688,311	8,770	697,081	342,216	4,470	346,686
Rangoon and Monimela.....	65,492	..	65,492	55,399	..	55,399
Arcan.....	978,496	..	978,496	166,256	1,347	167,603
Ceylon.....	38,098	3,101	41,199	350,343	9,208	359,551
Java.....	1,436,397	383,194	1,819,591	1,206,327	379,731	1,586,058
Bho.....	384,484	26,854	411,338	373,028	13,949	386,977
Arabia.....	35,489	30,433	65,922	14,110	6,736	20,846
Cochin China.....	694,213	14,788	709,001	309,201	6,128	315,329
Siam.....	446,848	11,397	458,245	404,626	1,780	406,406
Borneo.....	548,737	64,497	613,234	436,074	356,729	792,803
Batavia, Lombok, and Sumbawa.....	482,109	78,281	560,390	295,973	81,515	377,488
Celebes and other Eastern Islands.....	893,098	238,530	1,131,628	607,548	187,901	795,449
Somatra.....	461,581	221,073	682,654	368,668	187,734	556,402
East Coast Peninsula.....	392,384	766,909	1,159,293	372,580	866,703	1,239,283
West ditto.....	11,268	10,753	22,021	19,166	18,462	37,628
Neighbouring Islands and other places.....	174,033	115,462	289,495	236,229	93,877	330,106
Company's Stores.....	23,438,163	2,184,342	25,622,505	22,119,605	4,386,443	26,506,048
	22,119,605	..	22,119,605	..	2,184,343	24,303,948
Decrease.....	1,313,470	..	1,313,470	..	1,409,100	1,094,330
Increase.....	..	..	..	..	1,313,470	1,313,470
Nett Increase.....	..	..	..	..	..	80,040

  

Total Amont of Merchandise Imported in 1846—47 as above.....	Co.'s Re. 22,119,605	Co.'s Re. 26,773,681
" " of Treasure and Bullion in ditto ditto .....	4,386,443	..
" " of Merchandise Imported from Penang in 1846—47.....	1,177,881	1,425,650
" " of Treasure and Bullion ditto ditto .....	257,829	..
" " of Merchandise Imported from Malacca in 1846—47.....	710,548	831,898
" " of Treasure and Bullion ditto ditto .....	121,645	..
<b>GRAND TOTAL.....</b>	<b>26,506,048</b>	<b>28,973,681</b>

## COMPARATIVE Abstract Statement of the Trade of Singapore, &amp;c. (continued).

COUNTRIES.	EXPORTS.					
	1845-46.			1846-47.		
	Merchandise.	Treasure and Bullion.	Total.	Merchandise.	Treasure and Bullion.	Total.
Great Britain.....	Co.'s Rs. 2,153,404	Co.'s Rs.	2,153,404	Co.'s Rs. 2,114,078	Co.'s Rs.	2,114,078
Continental Europe.....	655,794	17,968	673,762	743,127		743,127
United States.....	58,291		58,291	68,710		68,710
New South Wales.....	162,594		162,594	369,878		369,878
Cape of Good Hope.....	21,575		21,575	498,53		498,53
Mauritius.....	541,236		541,236	29,077		29,077
Bourbon.....	4,378		4,378			
Colombo.....	662,194	5,170,970	5,833,164	1,501,084	2,522,211	4,023,295
Madras and Coast.....	115,205	156,341	271,546	198,285	245,179	443,464
Bombay and Coast.....	502,819	46,456	549,275	584,436	25,295	609,731
Calcutta.....	852,503	309,173	1,161,676	4,714,236	151,820	4,866,056
Manilla.....	416,352	39,223	455,575	322,169		322,169
Batavia and Moelligen.....	31,232	36,315	67,547	29,248	9,885	39,133
Aceon.....	149	124,675	124,824	10,189	50,800	60,989
Ceylon.....	25,474	20,518	45,992	75,004	44,819	119,823
Java.....	736,172	548,696	1,284,868	748,733	45,252	793,985
Rio.....	524,591	383,097	907,688	14,163	163,577	177,740
Arabia.....	126,526	40,419	166,945	220,750	30,969	251,719
Cochin China.....	752,340	9,535	761,875	3,315,151	1,004	3,316,155
Siam.....	471,693	25,541	497,234	592,838	229,210	822,048
Bally, Lombok, and Sumbawa.....	503,709	134,852	638,561	762,344	127,438	889,782
Celebes and other Eastern Islands.....	439,736	39,127	478,863	441,242	40,725	481,967
Sumatra.....	1,001,482	116,863	1,118,345	61,721	169,000	230,721
East Coast Peninsula.....	41,972	112,739	154,711	32,659	158,584	191,243
West Coast ditto.....	1,005,160	124,888	1,130,048	1,200,200	147,150	1,347,350
Neighbouring Islands and other Places.....	24,680	6,738	31,418	23,272	7,569	30,841
Company's Revenue.....	17,045,674	1,144,819	18,190,493	16,633,665	5,129,144	21,762,809
Decrease.....	559,488		559,488		1,355,181	795,693
Increase.....					562,468	1,357,879
Decrease.....						
Net increase.....					1,917,649	1,917,649
Total Amount of merchandise exported in 1846-47; as above.....	Co.'s Rs. 40,498,167	Co.'s Rs.	40,498,167	Co.'s Rs. 2,710,144	Co.'s Rs.	2,710,144
of treasure and bullion in 1846-47.....					2,710,144	2,710,144
of merchandise exported to Penang in 1846-47.....	554,531		554,531			
of treasure and bullion to ditto in ditto.....	461,472		461,472			
of merchandise exported to Malacca in 1846-47.....	218,946		218,946			
of treasure and bullion to ditto in ditto.....	427,297		427,297			
Gross Total.....					2,828,147	2,828,147

END OF PART XXIII.