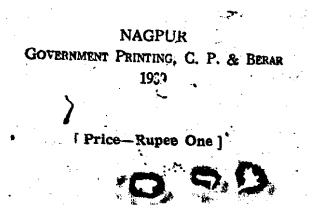


PART I-VOL. 2



IMPORTAN: INFORMATION

REPORT OF THE INDUSTRIAL SURVEY COMMITTEE

PART I-VOLUME 1

This volume discusses the considerations that underlie this survey and report is regard to the functions of the State, taxes and expenditure, capital and labour wealth money and barter economics, etc. It reviews the work done by the Department of Industries since its establishment and makes certain recommendations for the reorganization of the department. It contains the results of a survey of 606 villages and the suggestions made to the Government to encourage about 30 village and cottag industries.

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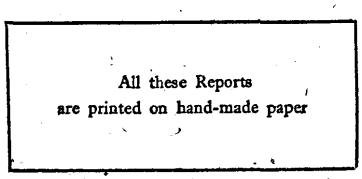
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PART II—VOLUME 2

(Under preparation)

This volume contains selected portions of the findings of the sub-committees and others on Forest, Mineral and Power resources, and Transport. Taxation and Marketing.



PREFACE

This book forms an annex to the First Volume of Part I of the Report.

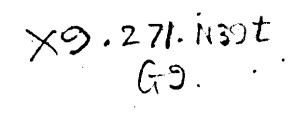
The first section contains two of the good district reports submitted by the group leaders who were in charge of the village survey parties. The space at our disposal does not permit of publishing the remaining twenty-one reports.

In the second section, selected notes and memoranda on various industries submitted by individuals and institutions are set out according to the order in which the respective industries have been dealt with in the First Volume.

The views and opinions expressed in this volume are those of the writers and are not necessarily endorsed by the Industrial Survey Committee which assumes no responsibility whatsoever on behalf of the writers for their statements.

NAGPUR : The 5th September 1939. J. C. KUMARAPPÁ,

Chairman, Industrial Survey Committee, Govt. of the C. P. & Berar.



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### rty (C. P.) Surveyors-

Nathmal H. Agrawal, B.A. (Hons.), LL.B., Commercial Agent to Government,	City College, Nagpur-	
Central Provinces and Berar, Co-opted	(5) Sjt. S. B. Potdar	3rd year
Member and Assistant Secretary, Industrial Survey Committee.	(6) Sjt. V. L. Umalkar	••••••••
Surveyors	Hislop College, Nagp	47
City College, Nagpur	(7) Sjt. K. S. Datar	3rd year
(1) Sjt. V. R. Chinchwadkar 3rd year. *	(8) Sjt. M. R. Deshmukh	• • <b>99</b>
(2) Sjt. S. D. Deshpande "	(9) Sjt. V. B. Shidhaye	· · · · ·
(3) Sjt. M. N. Patil ,,		
(4) Sjt. S. R. Patwardhan 🛛 . 🛥	(10) Sjt. B. A. Dongar wer	1st year

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### APPENDIX B

### L-IMPORTS

Drugs and Medicines ancluding chemicals and norcotics. (Statistics from the "Accounts relating to the Sea Borns Trade Navigation of British India "). ---,

i e f	-			Qu	antity	·				
Principal articles		Twelve months, (1st April to 31st March).								
		- 1933-34	1934-35	1935-36	1936-37	1937-38	1938-3			
•		Lbs.	Lbs.	Lba.	Lba	Lbs.	Lbs.			
Quinine calta	••	127,572	107,628	103,610	99,049	105,329	98,13			
Preparations of opium and morphi	a	**	••	••	••	• •	••			
Codiver oil	••	115,521	99,106	106,431	196,351	164,924	280,51			
Camphor	••	1,785,942	2,018,933	2,207,386	1,868,011	1,771,47	1,868,69			
Proprietary and patent medicines		••	•••	••	••	••	••			
Saccharin	••	34,962	35,418	91,141	23,241	25,721	27,52			
Other sorts	••	••	••	**	••	•••				
Grand Total	••	•••	••	•••	•	• • • • • • • • • • • • • • • • • • •				
Principal articles			Value							
			Twelve	e months, ( )a	April to 31s	t March).				
•		1933-34	1934-35	1935-36	1936-37	1937-38	1938-39			
Quinine salts	••	Rs. 31,74,199	Rs. 25,89,966	<b>Rs.</b> 26,17,842	Re. 23,19,610	Ra. 26,28,578	Rs. 25,37,192			
Preparations of opium and mophia	••	- 80,277	92,650	1,21,880	1,62,423	1,73,969	1,93,479			
Codliver oil	••	57,561	45,349	45,435	85,704	92,717	1,33,654			
Camphor	••	23,13,372	21,62.936	22,41,510	21,24,856	22,33,243	21,88,036			
Proprietary and patent medicines	~	30,97,635	39,26,150	64,20,669	67,76,845	73,79,559	60,74,672			
Saccharin	••	2,42,858	- 2,42,447	3,81,548	73,782	86,481	83,210			
Other sorts	•• 1	,03,76,252	1,01,30,538	92,87.654	91,40,249	1,10,28,780	1,08,42,991			
Grand Total	1	,93,42,154	1,91,90,036	2,11,16,538	2,06,83,469	2,36,23,327	2,20,53,230			

					II.—EXF	ORTS		
		3	<i></i>		Quar	ıtit <b>y</b>		
•	•	~	· · · · · · · · · · · · · · · · · · ·	Twelve m	onthe (1st Ap	ril to 31st M	urch).	
٢			1933-34	1934-35	1935-36	1936-37	1937-38	1938-39
Cinchona bark	(lbs.)		94,841	141,798	24,118	52,231	28,222	32,452
_Nux Vomica (S	Strychnia) cwt. 🐃	**	59,058	65,041	17,093	32,803	29,373	26,566 ·
Senna	cwt.	• •	59,179	51,141	67,118	65,688	63,434	49,395
Other sorts of d	lrugs and medicines	 ++		•.•		•• *	••	• •
`• <u>↓</u>	Total	••	•••	· · · ·		**	••	
		-				, ¥		

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	-	-	Value	• ·		,
		Twelve mo	onths / Ist Apr	il to 31st Mar	ch).	· · · · · · · · · · · · · · · · · · ·
•	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39
	29,589	42,371	6,302	16,026	9,820	11,117
••	2,98,667	3,60,771	94,176	1,55,829	1,42,866	1,06,813
••	9,58,262	<b>8,33,44</b> 3	10,12,665	8,98,292	8,45,412	5,88,728
•••	3,10,94,131	13,58,803	14,31,11	16.64,176	17,52,911	20,75.66
<b>+</b> =	280,649	25,95,393	25,44,256	27,34,326	27,51,009	27,82,332
4	· ·				وبالتكافية والمراجة ويتشروهم	· · · · · · · · · · · · · · · · · · ·
		-		4		
	•••	<ul> <li>29,589</li> <li>2,98,667</li> <li>9,58,262</li> <li>3,10,94,131</li> <li>280,649</li> </ul>	1933-34       1934-35          29,589       42,371          2,98,667       3,60,771          9,58,262       8,33,443          3,10,94,131       13,58,803          280,649       25,95,393	Twelve months / Int Apr           1933-34         1934-35         1935-36            29,589         42,371         6,302            2,98,667         3,60,771         94,176            9,58,262         8,33,443         10,12,665            3,10,94,131         13,58,803         14,31,11            280,649         25,95,393         25,44,256	1933-34         1934-35         1935-36         1936-37            29,589         42,371         6,302         16,026            2,98,667         3,60,771         94,176         1,55,829            9,58,262         8,33,443         10,12,665         8,98,292            3,10,94,131         13,58,803         14,31,11         16,64,176            280,649         25,95,393         25,44,256         27,34,326	Twelve months / Int April to 31st March).           1933-34         1934-35         1935-36         1936-37         1937-38            29,589         42,371         6,302         16,026         9,820            2,98,667         3,60,771         94,176         1,55,829         1,42,866            9,58,262         8,33,443         10,12,665         8,98,292         8,45,412            3,10,94,131         13,58,803         14,31,11         16,64,176         17,52,911           q-         280,649         25,95,393         25,44,256         27,34,326         27,51,009

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# APPENDIX C

# List of plants having medicinal uses.

	List of plan	uts having medicinal uses.
3	Names	Uses
1.	Abrus precatorius, Gunja or Gumchi	Seeds used to poison cattle. Powdered root is used for
2.	Acacia arabica (Babul)	coughs. Tender leaves useful in diarrhoea. Bark is a powerful astringent and demulcent.
3.	Acacia Catechu (Khair)	Used as an astringent and cooling application to ulcers, boils and eruptions.
4.	Acacia leucophloea (Hiwar)	The bark partakes more or less of the astringent pro- perties of Acacia arabica.
5.	Aegle marmelos (Bel)	The fruit is a well-known remedy for dysentery. A cooling 'Sherbet' is also made from the pulp of ripe fruits.
6r	Ailanthus excelsa (Maharukh)	The leaves and bark are in great repute as a tonic in Bombay.
7.	Alangium lamarkii (Akol)	The root bark is used in native medicine and has a reputation in leprosy and skin diseases.
8.	Albizzia lebbek (Kala-siris)	Seeds used in ophthalmic diseases. Oil extracted from them is useful in leprosy.
9.	Andropogon schoenanthus, (Rusa or Tikhadi).	Oil used for application in rheumatism.
10. 11.	Anogeissus latifolia (Dhaora) Asparagus racemosus (Shatawari, Narbodh).	The tree yields a valuable gum. The root is used medicinally as a stimulant.
12	Azadirachta indica (Neem)	The bark is used as a febrifuge, leaves useful in ulcers, fruit is also used medicinally, seeds kill insects and wash the hair.
13. 14.	Balanites roxburghii (Hingan) Baliospermum axillare (Hansia- dafar or Boa).	The seeds, bark and leaves used in native medicine. The seeds, bark and leaves are used in native medicine and are purgative. Stems used as a remedy for toothache.
15.	Barleria cristata (Korat or Koranti).	The seeds are supposed to be an antidote for snake bite. The roots and leaves are used to reduce swellings.
16.	Barleria prionitis (Keoti)	The juice of the leaves is applied to the soles of the feet to harden them.
17. •	Bassia latifolia, (Mahua)	Spirit distilled from flowers is described as heating astringent, tonic and appetising. Flowers are regarded as cooling, tonic and nutritive.
18.	Berberis 'asiatica (Daruhaldi or Rasaunt).	Used in ophthalmia and sun blindness and is a valuable tonic and febrifuge.
19.	Bombax malabaricum (Semal)	A gum called 'Mocharas' is collected from the tree and sold as medicine. The roots of young plants are the semal-musti of commerce, which is considered a very good tonic.
20.	Boswellia serrata (Salai)	A resin obtained from cuts of the bark has medicina properties.
21.	Buchanania latifolia Syn. B. Lanzan (Chironji, Achar, Char).	Fruit is sweet and laxative, used to relieve thirst burning of body and fever. Roots and leaves usefu in diarrhoea. Seed a valuable article in Indiar confectionery and yields an oil.
22.	Butea frondosa (Palas)	The seeds are used as a vermifuge.
23. 24.	Caesalpinia bonducella (Sagargoti) Calotropis gigantea (Ak or Rui)	The seeds are used as tonic and febrifuge. The milky juice and root used medicinally.
25.	Capparis horrida (Afúa, Waghoti)	Leaves used medicinally as a counter-irritant.
26.	Cardiospermum halicacabum (Kala- gunchi or Wasan).	Root is used as an emetic and laxative. The whole plant is used in rheumatism and lumbago.
27.	Carissa spinarum (Karonda)	Unripe fruit is astringent and the ripe is cooling and useful in bilious complaints. Root a bitter stomachic
28	Careya arborea (Kumbhi)	Makes an excellent jelly. Bark is applied to the wound in snake bite. Fruit i astringent and used as a decoction to promote diges
29.	Cascaria tomentosa (Gilchi)	tion. Flowers given as a tonic after child birth. The fruit is used for poisoning fish.
29.	Cascaria tomentosa (Gilchi)	tion. Flowers given as a tonic after child birth

#### Uses

30. Cassiauriculata (Tarwar) The twigs are used for cleaning teeth, 31. Cassia fistula (Amaltas or Bahava)... The pulp of the pods is a strong purgative and is considerably used in native medicine. 32. Cassia tora (Tarota or Panwar) Both leaves and seeds constitute a valuable remedy for skin disease. Celastrus paniculata (Malkangni) ... An oil, known as Oleum nigrum, is extracted from the 33. seeds by distillation and is used medicinally. Locally, yellow oil is extracted by compression and is used in gout and paralysis. The astringent bark is sometimes prescribed. Leaves 34. Chloroxylon swietenia (Bhirra or are applied to the wounds and useful in rheumatism. ghiria). 35. pareira Cissampelos (Pahadmul, A decoction of the root and bark is used for stomach Safed-padh). complaints and is applied externally in snake bite. 36. Cleistanthus collinus (Garari or Fruit and bark employed to poison fish. karra). 37. Coccinia indica (Indravan or Dhor-Gastro-intestinal irritant. The root is used in native kakri). medicine. Gum is used in coughs, also in gonorrhoea. **-38**. Cochlospermum gossypium (Gongal or Galgal). Curculigo orchioides (Kali-musli)... 39. The tubers are used in medicine. Cuscuta reflexa (Amarbel, Adharwel) 40. Seeds used medicinally in the Punjab as, an alterative. 41. Datura fastuosa (Kala Dhatura Poison is extracted from the seeds. (षस्तूर in Sanskrit). 42. D. stramonium. Safed-Dhatura. A well known poison. 43. Dendrocalamus strictus (Bans) The silicious matter found near the joints of certain culms and known as Banslochan or Tabashir is used as a cooling, tonic and astringent medicine. Leaves are given to animals during parturition. The young shoots are bruised and applied to eyes in 44. Dichrostachs cinerea ` (Yelati, Sagunkanti). cases of ophthalmia. 45. Dillenia pentagyna (Rankela). Used medicinally. The tuberous root is edible after being soaked in **46**. · Dioscorea daemona (Baichandi). running water. Dioscorea pentaphylla (Masal-kand). The tubers are sometimes used to disperse swellings. 47. Also used as a tonic. Diospyros melanoxylon (Tendu) ... The bark possesses astringent properties and is used 48. as decoction in diarrhoea and dyspepsia, as a tonic. In a dilute form it is used as an astringent lotion for eyes. Dolicandrone falcata (Medsingh) ... Decoction of fruit is used to procure abortion. Bark :49. is used as a fish poison. Elaeodendron glaucum (Jamrasi) ... Leaves used for hysterical syncope. Root is believed 50. to be a specific against snake-bite. Bark is used in native medicine and said to be a virulent poison. 51., Embelia robusta (Baibirang or Wao-The fruit is used in medicine as anthelmintic. ding). Erythrina suberosa (Pangra) Used medicinally. 52. . . Juice of bark is used in diarrhoea. Juice of leaves Eugenia jambolana (Jamun) 53. . . used in dysentery. Roots and seeds are useful astringent. The milky juice is considered as purgative, also said to 54. Euphorbia neriifolia (Thuar) be an antidote against snake-bite. Ficus bengalensis (Bud or Bargad) ... Milky juice externally applied for pains, bruises, etc. 55. Infusion of bark is a powerful tonic and specific for diabetes. Seeds cooling. Bark astringent, and used in dysentery. Seed cooling Ficus glomerata (Gular or Umar) ... 56. Powder of bark is useful in and alterative. fistula in anus. The fruits, seeds and bark possess valuable emetic Ficus hispida (Kat-umar) 57. properties. Bark astringent and used in gonorrhoea. Seeds cooling Ficus religiosa (Pipal) 58. and alterative. Flacourtia ramontchi (Kakai) Fruits are given in jaundice and enlarged spleen. 59. . . Used in native medicine for keeping off flics from Gardenia lucida (Dikamali) **60**. . . sores and in the treatment of cutaneous diseases. Preparation from the root used as remedy for indiges-Gardenia turgida (Phetra) 61.

tion in children.

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- Garuga pinnata (Ghogar or Kekad). 62.
- 63. Gloriosa superba (Bishnangul) Kalleis or Kirkichigao or Karkari).
- Gmelina arborea (Siwan or Khamer) 64.
- Gymnosporia montona (Bharati) 65.
- Helicteres isora (Marorphal, Aithni) **66**.
- Hemidesmus indicus (Anantmul, 67. Khoberwel).
- cancellatus (Kacheli, 68. Hibiscus Bhojraj, Tezraj).
- Holarrhena antidysenterica (Kura, 69. Indiano, Kudo).
- Hymenodiction excelsum (Bhour-70. mal).

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- Ixora parviflora (Lokhandi) 71.
- Lantana aculeata (Raimunia) 72.
- Leea macrophylla (Hatikand, Hathi-73: pan).
- Litsaea sebifera (Maida-lakri, Lenja) 74.
- 75.
- 76. Milletia auriculata (Ganj or Nasbel)
- Moringa pterygosperma (Shewaga, 77. Munga).
- or Kewanch).
- 79. e Murraya Koenigii (Karipat) Mithineem.
- 80. Nyctanthes arbor-tristis (Harsingar) Parijatak.
- 81. Ocimum sanctum (Tulsi)
- 82. Opuntia elatior (Nagphani)
- Oroxylum indicum (Sonpadar, Jai-83. mangal).
- 84. Ougenia dalbergiodes (Tiwas or Tinsa).
- 85. Pachystoma senile (Safed Musli) ·...
- Phyllanthus emblica (Aonla) 86.
- 87. Pongamia glabra (Karanji)
- **88**. Plumbago zeylanica (Chitawar or Chitrak).
- 89 Polygala chinensis (Bijnori)
- 90. Pterocarpus marsupium (Bija)
- 91. Pueraria tuberosa (Ghorbel)
- 92. Radia dumetorum (Mainhar, Mainphal).
- 93. Santalum album (Chandan or Sandal).
- 94. Sapindus laurifolius (Ritha) . .
- Sesbania aculeata (Savri) 95.
- 96. S. Grandiflora (Agasta Cultivated) ...

The juice of stem is useful for eye complaints. Fruit is a stomachic remedy.

Uses

- The tuberous root is believed in Madras to be a specific against snake bite and scorpion stings.
- The root is used in native medicine.
- Bark applied with other oils to the head for destroying pediculi.
- The fruits are used medicinally for colic and intestinal complaints.
- The root is commonly used as a substitute for Sarsaparilla, as a tonic and alterative.
- A decoction of the plant is used in conjunction with other medicines for debility and impotence.
- The barks, leaves, fruits and seeds are well known remedies for dysentery.
- The inner bark is used in native medicine as a febrifuge.
- Flowers used in dysentery.
- Leaves, boiled with barley, are given to women in child-birth.
- The root is used medicinally in the cure of guineaworm
- The mucileginous bark is largely used in native medicine, as an astringent in diarrhoea.
- Mallotus philippinensis (Kamela) Fruit powder as an anthelmintic, vermifuge and purga-Sirduri or Kunkuma. tive medicine.
  - Bark used to poison fish and infusion of root as an insecticide.
  - Root and seed stimulant. Root poultice reduces swelling. Decoction of root bark is used as fomentation to relieve spasm. Fruit used in affection of liver and spleen.
- 78. Mucuna pruriens (Kanchkuri or The hairs of the pods have long been used as a vermifuge in European medicine. The cowitch climber of the Anglo Indians.
  - The leaves, bark and root are used in native medicine as a tonic and stomachic.
  - Leaves useful in fever and rheumatism. Powdered seeds are used to cure scurvy affection of the scalp. The juice of the leaves is largely used in native medi
    - cines.
    - Used medicinally.
  - The root bark is used in native medicine as an astringent and tonic.
  - The bark is used as febrifuge.
  - The rhizomes are collected and sold for medicinal. purposes.
    - The fruit is used medicinally.
  - The oil extracted from seeds is useful in skin diseases.
  - The root is employed in medicine. It is made into a paste and applied in leprosy and skin diseases as well as in rheumatism.
  - Root used in cases of fever and dizziness.
  - A red gum resin obtained from wounds in the bark used in medicine, as an astringent.

The roots are used in medicine.

- The unripe fruit is used to poison fish. Bark and fruit are used medicinally. Pulp of the fruit is a valuable and safe emetic.
- Oil from seed used in skin disease. Wood useful in biliousness and vomiting.
- Used in native medicine.
- Seeds used medicinally.
- The juice of leaves and flowers a popular remedy for nasal catarrh and headache.

97.	Semecarpus anacardium (Bhilwa,	Т
98	Bibba). Smilaz macrophylla (Ramdaton)	T
<del>99</del> .	Solanum Indicum (Bhatkataia)	R
100. 101.	Soymida febrifuga (Rohan) Sterculia urens (Kulu)	B L
102.	Stereospermum xylocarpum (Bha- ins-padar).	Ŀ
103. 104.	Stereospermum suaveolens (Padar) Strychnos nux-vomica (Kuchla)	F T
105.	Strychnos potatorum (Nirmali)	Т
106.	Swertia angustifolia (Chiretta)	A
107.	Tamarindus indica (Imli)	Т
108.	Tectona grandis (Sagwan)	P
109.	Terminalia Arjuna (Koha or arjun)	B
110. 111. 112. 113.	Terminalia belerica (Bahera) Terminalia chebula (Harra) Terminalia tomentosa (Saj, Ain) Thespesia lampas (Jangli bhindi)	T U D T
<b>114.</b>	Tinospora cordifolia (Gulvel, Gurbel).	Т
115.	Tribulus terrestris (Gokru)	T
116.	Trichosanthes palmata (Kahira or Kaundal).	r
117. 118.	Triumfetta rhomboidea (Chirpat) Ventilago calyculata (Papri, Keoti, Lal-bel).	U P
119.	Vitexnegundo (Nirgudi)	T
120. 121.	Vitex quadrangularis (Hadjuri) Wrightia tomentosa (Dudhi)	ך S
	7 In the second allots (Carlabai)	n

- Uses
- The juice of pericarp is used in native medicine, in all kinds of skin diseases. It is a powerful vesicant.
- The stems are used as tooth brushes. Roots used as Sarsaparilla.
- Root useful in cough, fever, colic, etc. Juice of leaves useful in stopping vomiting.
- Bark useful in intermittent fevers and debility.
- Leaves and tender branches useful in pleuro-pneumonia in cattle. Gum useful in throat affection.
- In Western India a resin is extracted from the wood which is used as a remedy for skin eruptions.
- Flowers useful to check hic cough.
- The wood is a useful remedy for dysentery, fever and dyspepsia. Seeds useful in colic. Leaves used as poultice. Poison.
- The seeds are used in cleaning muddy water and in medicine.
- An infusion of this plant is used for fever and as a stomachic.
- The acid pulp in the pod is a laxative and is medicinally used. Poultices of the leaves are used for inflammatory swellings.
- Plaster of powdered wood useful in headache and in inflammatory swellings. Bark astringent. Oil of nuts removes itchiness of skin. Flowers diuretic.
- Bark useful in bilious affections and antidote to poison, tonic and useful in head diseases. Juice of fresh leaves is remedy for ear ache.
- The seeds are used medicinally.
- Used in fevers, cough, asthma and urinal diseases etc.
- Decoction of bark is taken in diarrhoea.
- The root and fruits are said to be used medicinally in Chota Nagpur.
- The root, stem and leaves are used is native medicine as a febrifuge and as a valuable alterative and tonic.
- The fruit is used medicinally throughout India as a tonic and aphrodisiac.
- The fruit and root are used in native medicine.

Used medicinally.

- Powdered root bark useful as a tonic for dyspepsia and debility.
- The leaves which are aromatic when bruised are employed in native medicine.
- The stunts are applied to assist healing of broken boncs.
- Seed produces medicinal oil. Bark is given in menerual and renal complaints. Bark and root bark useful in snake bite and scorpion stings.

The juice of the plant is used medicinally in Konkan,

GPN-1328-CDI--29-10-39-1,000.

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122. Zehneria umbellata (Gulakri)

### APPENDIX B

### L-IMPORTS

Drugs and Medicines excluding chemicals and narcotics. (Statistics from the "Accounts relating to the Sea Borne Trade ( Navigation of British India ").

• •	 ,			Qua	ntity					
Principal articles		Twelve months, (1st April to 31st March).								
		1933-34	1934-35	1935-36	1936-37	1937-38	1938-39			
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Quinine salts	<b>*</b> *.	127,572	107,628	103,610	<b>99,049</b>	105,329	98,139			
Preparations of opium and morphia	*•,	••	••	••	••	••	••			
Codliver oll	••	115,521	99,106	106,431	196,351	164,924	280,516			
Camphor		1,785,942	2,018,933	2,207,386	1,868,011	1,771,471	1,868,6 <b>9</b> 4			
Proprietary and patent medicines	••	••		••	••	••	••			
Saccharin	••	34,962	35,418	91,141	23,241	25,721	27,526			
Other sorts	••	••	••			••	l.			
Grand Total	**	••	• •	••	••	,	_			
Principal articles			• :	Va	lue					

Principal articles		Twelve months, (1st April to 31st March).							
••	Rs. 31,74,199	Rs. 25,89,966	<b>Rs.</b> 26,17,842	Rs. 23,19,610	Ra. 26,28,578	Rs. 25,37,182			
	80,277	92,650	1,21,880	1,62,423	1,73,969	1,93,479			
••	57,561	45,349	45,435	85,704	92,717	1,33,654			
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200	30,97,635	39,26,150	64,20,669	67,76,845	73,79,559	60,74,672			
••	2,42,858	2,42,447	3,81,548	73,782	86,481	83,210			
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••	1,93,42,154	1,91,90,036	2,11,16,538	2,06,83,469	2,36,23,327	2,20,53,230			
••	1,93,42,154	1,91,90,036	2,11,16,538	2,06,83,469	2,36,23,327	2,20,55,25			
	•••	Rs. 31,74,199 80,277 57,561 23,13,372 30,97,635	1933-34       1934-35         Rs.       Rs.         31,74,199       25,89,966         80,277       92,650         57,561       45,349         23,13,372       21,62,936         30,97,635       39,26,150         2,42,858       2,42,447         1,03,76,252       1,01,30,538	1933-34         1934-35         1935-36           Rs.         Rs.         Rs.         Rs.           31,74,199         25,89,966         26,17,842           80,277         92,650         1,21,880           57,561         45,349         45,435           23,13,372         21,62,936         22,41,510           30,97,635         39,26,150         64,20,669           2,42,858         2,42,447         3,81,548          1,03,76,252         1,01,30,538         92,87,654	1933-34         1934-35         1935-36         1936-37           Rs.         Rs.         Rs.         Rs.         Rs.         Rs.           31,74,199         25,89,966         26,17,842         23,19,610           80,277         92,650         1,21,880         1,62,423           57,561         45,349         45,435         85,704           23,13,372         21,62,936         22,41,510         21,24,856           30,97,635         39,26,150         64,20,669         67,76,845           2,42,858         2,42,447         3,81,548         73,782           1,03,76,252         1,01,30,538         92,87,654         91,40,249	1933-341934-351935-361936-371937-38Rs.Rs.Rs.Rs.Rs.Rs.Rs. $31,74,199$ 25,89,96626,17,84223,19,61026,28,578 $$ $80,277$ 92,6501,21,8801,62,4231,73,969 $$ $57,561$ 45,34945,43585,70492,717 $$ 23,13,37221,62,93622,41,51021,24,85622,33,243 $$ 30,97,63539,26,15064,20,66967,76,84573,79,559 $$ 2,42,8582,42,4473,81,54873,78286,481 $$ 1,03,76,2521,01,30,53892,87,65491,40,2491,10,28,780			

		II.—EXPORTS								
		. 1		Quantity						
•			· · · · · · · · · · · · · · · · · · ·	Twelve months (1st April to 31st March).						
		•	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39		
Cinchona bark	(lbs.)	••	94,841	141,798	24,118	52,231	28,222	32,452		
Nux Vomica (S	trychnia) cwt.		<b>59</b> ,058	65,041	17,093	32,803	29,373	26,566		
Senna	cwt.	••	59,179	51,141	67,118	65,688	63,434	49,395 [%]		
Other sorts of d	rugs and medicines	: • •	. • •	•.•	, <b>••</b>	••		••		
• - `_	Total	•• _	••	••	••	••	••	<u> </u>		
						•				

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		,		Value			
		Twelve months (1st April to 31st March).					······································
	ſ	1933-34	1934-35	1935-36	1936-37	1937-38	1938-39
Cinchona bark	, <b>• •</b>	29,589	42,371	6,302	16,026	9,820	11,117
Nux vomica (Strychnia)		2,98,667	3,60,771	94,176	1,55,829	1,42,866	1,06,813
Senna	••	9,58.262	<b>8,33,4</b> 43	10,12,665	8,98,292	8,45,412	5,88,728
Other sorts of drugs and medicines	••	3,10,94,131	13,58,803	14,31,11	16.64.176	17,52,911	20,75,664
Total	4+	280,649	25,95,393	25,44,256	27,34,326	27,51,009	27,82,332
				<b></b>			
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# APPENDIX C

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### List of plants having medicinal uses.

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С	Names	Uses
1.	Abrus precatorius, Gunja or Gumchi	Seeds used to poison cattle. Powdered root is used for coughs.
2.	Acacia arabica (Babul)	Tender leaves useful in diarrhoea. Bark is a powerful astringent and demulcent.
3.	Acacia Catechu (Khair)	Used as an astringent and cooling application to ulcers, boils and eruptions.
4.	Acacia leucophloea (Hiwar)	The bark partakes more or less of the astringent pro- perties of Acacia arabica.
ָ <b>5.</b>	Aegle marmelos (Bel)	The fruit is a well-known remedy for dysentery. A cooling 'Sherbet' is also made from the pulp of ripe fruits.
6-	Aílanthus excelsa (Maharukh)	The leaves and bark are in great repute as a tonic in Bombay.
7.	Alangium lamarkii (Akol)	The root bark is used in native medicine and has a reputation in leprosy and skin diseases.
8.	Albizzia lebbek (Kala-siris)	Seeds used in ophthalmic diseases. Oil extracted from them is useful in leprosy.
9.	Andropogon schoenanthus, (Rusa or Tikhadi).	Oil used for application in rheumatism.
10. ,11.	Anogeissus latifolia (Dhaora) Asparagus racemosus (Shatawari, Narbodh).	The tree yields a valuable gum. The root is used medicinally as a stimulant.
12	Azadirachta indica (Neem)	The bark is used as a febrifuge, leaves useful in ulcers, fruit is also used medicinally, seeds kill insects and wash the hair.
13. 14.	Balanites roxburghii (Hingan) Baliospermum axillare (Hansia- dafar or Boa).	The seeds, bark and leaves used in native medicine. The seeds, bark and leaves are used in native medicine and are purgative. Stems used as a remedy for toothache.
15.	Barleria cristata (Korat or Koranti).	The seeds are supposed to be an antidote for snake bite. The roots and leaves are used to reduce swellings.
16.	Barleria prionitis (Keoti)	The juice of the leaves is applied to the soles of the feet to harden them.
17. #	Bassia latifolia, (Mahua)	Spirit distilled from flowers is described as heating, astringent, tonic and appetising. Flowers are regarded as cooling, tonic and nutritive.
18.	Rasaunt).	Used in ophthalmia and sun blindness and is a valuable tonic and febrifuge.
19.	Bombax malabaricum (Semal)	A gum called 'Mocharas' is collected from the tree and sold as medicine. The roots of young plants are the semal-musti of commerce, which is considered a very good tonic.
20.	Boswellia serrata (Salai)	A resin obtained from cuts of the bark has medicinal properties.
21.	Buchanania latifolia Syn. B. Lanzan (Chironji, Achar, Char).	Fruit is sweet and laxative, used to relieve thirst, burning of body and fever. Roots and leaves useful in diarrhoea. Seed a valuable article in Indian confectionery and yields an oil.
22. 23.	Butea frondosa (Palas) Caesalpinia bonducella (Sagargoti)	The seeds are used as a vermifuge. The seeds are used as tonic and febrifuge.
24.	Calotropis gigantea (Ak or Rui)	The milky juice and root used medicinally.
25. 26.	Capparis horrida (Afuz, Waghoti) Cardiospermum halicacabum (Kala-	Leaves used medicinally as a counter-irritant. Root is used as an emetic and laxative. The whole
27.	gunchi or Wasan). Carissa spinarum (Karonda)	plant is used in rheumatism and lumbago. Unripe fruit is astringent and the ripe is cooling and useful in bilious complaints. Root a bitter stomachic.
28.	Careya arborea (Kumbhi)	Makes an excellent jelly. Bark is applied to the would in snake bite. Fruit is astringent and used as a decoction to promote diges- tion. Flowers given as a tonic after child birth.
29.	Casearia tomentosa (Gilchi)	The fruit is used for poisoning fish.

	Names	Uses
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30. 31.	Cassiauriculata (Tarwar) Cassia fistula (Amaltas or Bahava)	The twigs are used for cleaning teeth. The pulp of the pods is a strong purgative and is con-
32.	Cassia tora (Tarota or Panwar)	siderably used in native medicine. Both leaves and seeds constitute a valuable remedy for
33.	Celastrus paniculata (Malkangni)	skin disease. An oil, known as Oleum nigrum, is extracted from the
		seeds by distillation and is used medicinally. Locally, yellow oil is extracted by compression and is used in
34.	Chloroxylon swietenia (Bhirra or ghiria).	gout and paralysis. The astringent bark is sometimes prescribed. Leaves
35.	Cissampelos pareira (Pahadmul, Safed-padh).	are applied to the wounds and useful in rheumatism. A decoction of the root and bark is used for stomach complaints and is applied externally in snake bite.
36.	Cleistanthus collinus (Garari or karra).	Fruit and bark employed to poison fish.
37.	Coccinia indica (Indravan or Dhor- kakri).	Gastro-intestinal irritant. The root is used in native medicine.
× 38.	Cochlospermum gossypium (Gongal or Galgal).	Gum is used in coughs, also in gonorrhoea.
39.	Curculigo orchioides (Kali-musli).	The tubers are used in medicine.
40.	Cuscuta reflexa (Amarbel, Adharwel)	Seeds used medicinally in the Punjab as an alterative
41.	Datura fastuosa (Kala Dhatura (चस्तूर in Sanskrit).	Poison is extracted from the seeds.
42.	D. stramonium. Safed-Dhatura.	A well known poison.
43.	Dendrocalamus strictus (Bans)	The silicious matter found near the joints of certain
		eulms and known as Banslochan or Tabashir is used as a cooling, tonic and astringent medicine.
		Leaves are given to animals during parturition.
44. 45	Dichrostachs cinerea (Yelati, Sagunkanti).	The young shoots are bruised and applied to eyes in cases of ophthalmia.
45. 46.	Dillenia pentagyna (Rankela) Dioscorea daemona (Baichandi)	Used medicinally: The tuberous root is edible after being soaked in running water.
47.	Dioscorea pentaphylla (Masal-kand).	The tubers are sometimes used to disperse swellings. Also used as a tonic.
48.	Diospyros melanoxylon (Tendu)	The bark possesses astringent properties and is used as decoction in diarrhoea and dyspepsia, as a tonic In a dilute form it is used as an astringent lotion for eyes.
49.	Dolicandrone falcata (Medsingh)	Decoction of fruit is used to procure abortion. Bark is used as a fish poison.
50.	Elacodendron glaucum (Jamrasi)	Leaves used for hysterical syncope. Root is believed to be a specific against snake-bite. Bark is used in
51.	Embelia robusta (Baibirang or Wao-	native medicine and said to be a virulent poison. The fruit is used in medicine as anthelmintic.
52.	ding). Erythrina suberosa (Pangra)	Used medicinally.
53.	Eugenia jambolana (Jamun)	Juice of bark is used in diarrhoea. Juice of leaves
	, , , , , , , , , , , , , , , , , , ,	used in dysentery. Roots and seeds are useful astringent.
54.	Euphorbia neriifolia (Thuar)	The milky juice is considered as purgative, also said to be an antidote against snake-bite.
55.	Ficus bengalensis (Bud or Bargad)	Milky juice externally applied for pains, bruises, etc. Infusion of bark is a powerful tonic and specific for diabetes. Seeds cooling.
56.	Ficus glomerata (Gular or Umar)	Bark astringent, and used in dysentery. Seed cooling and alterative. Powder of bark is useful in fistula in anus.
57.	Ficus hispida (Kat-umar)	The fruits, seeds and bark possess valuable emetic properties.
58.	Ficus religiosa (Pipal)	Bark astringent and used in gonorrhoea. Seeds cooling and alterative.
59.	Flacourtia ramontchi (Kakai)	Fruits are given in jaundice and enlarged spleen.
<b>60</b> .	Gardenia lucida (Dikamali)	Used in native medicine for keeping off flies from sores and in the treatment of cutaneous diseases.
61.	Gardenia turgida (Phetra)	Preparation from the root used as remedy for indiges- tion in children.

### Uses

- 62. Garuga pinnata (Ghogar or Kekad)
- 63. Gloriosa superba (Bishnangul) Kalleis or Kirkichigao or Karkari).
- 64. Gmelina arborea (Siwan or Khamer)
- 65. Gymnosporia montona (Bharati) ...
- 66. Helicteres isora (Marorphal, Aithni)
- 67. Hemidesmus indicus (Anantmul, Khoberwel).
- 68. Hibiscus cancellatus (Kacheli, Bhojraj, Tezraj).
- 69. Holarrhena antidysenterica (Kura, Indrajao, Kudo).
- 70. Hymenodictyon excelsum (Bhourmal).
- 71. Ixora parviflora (Lokhandi)
- 72. Lantana aculeata (Raimunia)
- 73. Leea macrophylla (Hatikand, Hathipan).
- 74. Litsaea sebifera (Maida-lakri, Lenja)
- 75. Mallotus philippinensis (Kamela) Sirduri or Kunkuma.
- 76. Milletia auriculata (Ganj or Nasbel)
- 77. Moringa pterygosperma (Shewaga, Munga).
- 78. Mucuna pruriens (Kanchkuri or or Kewanch).
- 79. Murraya Koenigii (Karipat) Mithineem.
- 80. Nyctanthes arbor-tristis (Harsingar) Parijatak.
- 81. Ocimum sanctum (Tulsi)
- 82. Opuntia elatior (Nagphani)
- 83. Oroxylum indicum (Sonpadar, Jaimangal).
- 84. Ougenia dalbergiodes (Tiwas Tinsa).
- 85. Pachystoma senile (Safed Musli) ...
- 86. Phyllanthus emblica (Aonla)
- 87. Pongamia glabra (Karanji)
- Plumbago zeylanica (Chitawar or Chitrak).
- 89 Polygala chinensis (Bijnori)
- 90. Pterocarpus marsupium (Bija)
- 91. Pueraria tuberosa (Ghorbel)
- 92. Radia dumetorum (Mainhar, Mainphal).
- 93. Santalum album (Chandan or Sandal).
- 94. Sapindus laurifolius (Ritha)
- 95. Sesbania aculeata (Savri)
- 96. S. Grandiflora (Agasta Cultivated) . .

- The juice of stem is useful for eye complaints. Fruit is a stomachic remedy.
- The tuberous root is believed in Madras to be a specific _______against snake bite and scorpion stings.
- The root is used in native medicine.
- Bark applied with other oils to the head for destroying _____pediculi.
- The fruits are used medicinally for colic and intestinal complaints.
- The root is commonly used as a substitute for Sarsaparilla, as a tonic and alterative.
- A decoction of the plant is used in conjunction with other medicines for debility and impotence.
- The barks, leaves, fruits and seeds are well known remedies for dysentery.
- The inner bark is used in native medicine as a febrifuge.

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- Flowers used in dysentery.
- Leaves, boiled with barley, are given to women in child-birth.
- The root is used medicinally in the cure of guineaworm.
- The mucilaginous bark is largely used in native medicine, as an astringent in diarrhoea.
- Fruit powder as an anthelmintic, vermifuge and purgative medicine.
- Bark used to poison fish and infusion of root as an insecticide.
- Root and seed stimulant. Root poultice reduces swelling. Decoction of root bark is used as fomentation to relieve spasm. Fruit used in affection of liver and spleen.
- The hairs of the pods have long been used as a vermifuge in European medicine. The cowitch climber of the Anglo Indians.
- The leaves, bark and root are used in native medicine as a tonic and stomachic.
- Leaves useful in fever and rheumatism. Powdered seeds are used to cure scurvy affection of the scalp. The juice of the leaves is largely used in native medi-
- cines. Used medicinally.

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- The root bark is used in native medicine as an astringent and tonic.
- The bark is used as febrifuge.
- The rhizomes are collected and sold for medicinal. purposes.
  - The fruit is used medicinally.
- The oil extracted from seeds is useful in skin diseases.
- The root is employed in medicine. It is made into a paste and applied in leprosy and skin diseases as well as in rheumatism.
  - Root used in cases of fever and dizziness.
- A red gum resin obtained from wounds in the bark used in medicine, as an astringent.

The roots are used in medicine.

- The unripe fruit is used to poison fish. Bark and fruit are used medicinally. Pulp of the fruit is a valuable and safe emetic.
- Oil from seed used in skin disease. Wood useful in biliousness and vomiting.
- Used in native medicine.
- Seeds used medicinally.
- The juice of leaves and flowers a popular remedy for nasal catarrh and headache.

Uses

#### Names

#### The juice of pericarp is used in native medicine, in all 97. Semecarpus anacardium (Bhilwa, kinds of skin diseases. It is a powerful vesicant. Bibba). The stems are used as tooth brushes. Roots used as 98. Smilax macrophylla (Ramdaton) Sarsaparilla. 99. Solanum indicum (Bhatkataia) Root useful in cough, fever, colic, etc. Juice of leaves . . useful in stopping vomiting. 100. Soymida febrifuga (Rohan) Bark useful in intermittent fevers and debility. Leaves and tender branches useful in pleuro-pneumonia 101. Sterculia urens (Kulu) in cattle. Gum useful in throat affection. In Western India a resin is extracted from the wood 102. Stereospermum xylocarpum (Bhawhich is used as a remedy for skin eruptions. ins-padar). 103. Stereospermum suaveolens (Padar) Flowers useful to check hic cough. Strychnos nux-vomica (Kuchla) The wood is a useful remedy for dysentery, fever and 104. . . dyspepsia. Seeds useful in colic. Leaves used as poultice. Poison. The seeds are used in cleaning muddy water and in 105. Strychnos potatorum (Nirmali) medicine. 106. Swertia angustifolia (Chiretta) An infusion of this plant is used for fever and as a stomachic. 107. Tamarindus indica (Imli) The acid pulp in the pod is a laxative and is medicinally Poultices of the leaves are used for inflammaused. tory swellings. Tectona grandis (Sagwan) 108. Plaster of powdered wood useful in headache and in inflammatory swellings. Bark astringent. Oil of nuts removes itchiness of skin. Flowers diuretic. 109. Terminalia Arjuna (Koha or arjun). . Bark useful in bilious affections and antidote to poison, tonic and useful in head diseases. Juice of fresh leaves is remedy for ear ache. Terminalia belerica (Bahera) 110. The seeds are used medicinally. . . 111. Terminalia chebula (Harra) Used in fevers, cough, asthma and urinal diseases etc. . . Terminalia tomentosa (Saj, Ain) Decoction of bark is taken in diarrhoea. 112. . . . Thespesia lampas (Jangli bhindi) The root and fruits are said to be used medicinally in 113. . . Chota Nagpur. 114. Tinospora cordifolia (Gulvel, The root, stem and leaves are used in native medicine as a febrifuge and as a valuable alterative and Gurbel). tonic. 115. Tribulus terrestris (Gokru) The fruit is used medicinally throughout India as a tonic and aphrodisiac. Trichosanthes palmata (Kahira or The fruit and root are used in native medicine. 116. Kaundal). Triumfetta rhomboidea (Chirpat) Used medicinally. 117. Ventilago calyculata (Papri, Keoti, Powdered root bark useful as a tonic for dyspepsia 118. Lal-bel). and debility. Vitexnegundo (Nirgudi) The leaves which are aromatic when 119. bruised are employed in native medicine. The stunts are applied to assist healing of broken bones. 120. Vitex quadrangularis (Hadjuri) . . Seed produces medicinal oil. Bark is given in mensrual Wrightia tomentosa (Dudhi) 121. and renal complaints. Bark and root bark useful in snake bite and scorpion stings. 122. Zehneria umbellata (Gulakri) The juice of the plant is used medicinally in Konkan.

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