

APPENDIX A.

ANNUAL REPORT OF THE DEPUTY DIRECTOR OF INDUSTRIES.

Sir,

I have the honour to submit a report on the work of the Deputy Director of Industries for the year 1921-22.

2. * * * * *

3. The Advisory Board to the Department of Industries has passed two resolutions since my return to the effect that the post of Deputy Director should be abolished and the decision of Government is awaited.

To work in a position of such uncertainty has caused me great anxiety and unhappiness.

4. The control of the Dapuri Workshops was restored to me early in the new year.

The second attempt to carry out woodwork and furniture at these works has again proved a failure.

5. Cheap but good woodwork cannot be undertaken at Dapuri until a full range of woodworking machines is installed.

Most of the operations now carried out so inefficiently by hand should be done on machines by trained men. The components of an article under construction, properly marked off, should be handed over to the joiners for fitting, glueing up and finishing. If this system is ever adopted, I believe woodworking will be a success.

6. By the end of the financial year new works at Dapuri were practically complete and the full energies of the staff can now be directed to work in the shops and to the needs of clients.

The works have always been carried on with difficulty owing to building alterations and the lack of a full range of machines.

The works are very well equipped for repair work and the production of parts of machinery, castings, etc.; and if sufficient orders are forthcoming they should pay their way.

7. A policy of reducing the stores to the smallest quantity possible has been instituted and all old and redundant stock is being sold off by auction.

8. Orders have been received to re-open a Tools and Plant Store for the Public Works Department.

9. The question remains to be decided whether the staff can be reduced further, and it seems probable now that new works are complete, that a single European officer with an Indian Assistant might be able to carry on the works and office.

10. The Gold and Silver Wire Drawing industry has been examined and unsuccessful attempts made to design a machine for producing square section spirals.

Experiments in preparing hard steel rolls have met with some success, but it is hoped to produce an article which will not require such frequent polishing.

The problem is to find a suitable grade of steel which will stand hardening and retain a highly polished surface.

11. Sawing logs into planks and scantlings by means of circular saws is wasteful and inaccurate and has led to many failures. Inserted tooth saws tried at Dapuri are more successful as they remain sharp for a longer period, but it is clear that the vertical frame saw is the correct type of machine. Unfortunately such frame saws are very costly when imported. A vertical frame saw has now been designed with timber construction and will shortly be tried at Dapuri. This saw should be popular as it is easy to make and the cost will be quite moderate.

12. Attention has been directed to the design of a cheap pumping set for small yields from wells. Progress has been made with a design of pump which promises to be cheap to make, but experience in work can alone prove whether it is to be satisfactory or not.

13. Opinion is slowly turning in the direction of utilising charcoal for the production of power in small suction gas producers.

It is hoped that before long the use of small gas engines and producers will become popular. Messrs. Kirloskar Bros. are taking up the manufacture of such plant and have already made several producers which are supplying gas to converted oil engines.

14. An investigation into the manufacture of chilled plough shares has demonstrated that the chilled shares made by Kirloskar Bros. are quite equal to those imported from England and the United States of America while the cost is half the amount paid for the latter.

15. A large number of problems submitted by industrialists have been investigated and information has been supplied in the majority of cases.

Owing to the state of trade, however, few new enterprises have been taken up seriously.

16. Investigations in the use of Bombay timbers for different purposes have been carried on in collaboration with the Forest Department, but no conclusive results are ready owing to the time required to obtain really seasoned timber from woods which are not in common use.

17. Assistance has been rendered to the Public Works Department in connection with mechanical engineering work when required. I have again been

placed on the Sanitary Board and attended an important meeting at Mahableshtar.

18. I attended the Handloom Weaving Exhibition at Patna and have attempted to find a suitable wood for making shuttles, but the investigation is incomplete.

19. A 15 b.h.p. oil engine was purchased for the Ratnagiri Industrial school and a visit was made to that institution. Plans for erecting the oil engine and setting up a number of machine and woodworking tools have been sent to the Superintendent, but in the absence of any definite programme of instruction in metal and woodwork with machines, it is rather doubtful whether the installation of power will be of much benefit to the students.

20. A set of button making machines has been designed, made and set up at Dapuri by Mr. Mustaphi who has had considerable experience of button making.

These machines are now producing buttons and it is anticipated that they will be turning out considerable quantities shortly when the workers are fully trained.

If successful, this demonstration plant should form the nucleus for an industry on this side of India as enormous quantities of "nut buttons" are now imported from Italy which might be made in India.

I have, etc.,

(Signed) G. H. THISELTON-DYER,

Deputy Director of Industries.

APPENDIX B.

COMMERCIAL AND INDUSTRIAL ENQUIRIES, 1921-22.

Subject of enquiry.	Number of enquiries.
1. Acetate of lime. Buyers of —	1
2. Acid Sulphuric. Manufacturers in India of —	1
3. „ Oxalic. „ „	1
4. Acids for dyeing. Literature on —	1
5. Agricultural implements and machinery. Imports of —	1
6. Ajwan Oil. Distilleries in India of —	2
7. Alabaster. Sources of —	1
8. Alumina Sulphate. Consumption in Bombay of —	1
9. „ Ferric. „ „	1
10. Aluminum. Importers of —	1

Subject of enquiry.	Number of enquiries.
11. Aluminum sheets. Dealers in —	1
12. „ wares. Manufacturers of —	1
13. Antimony Sulphide. Producers of —	1
14. Apprenticeship for pharmaceutical chemist	1
15. Artemesia. Dealers in —	1
16. Asbestos. Producers in India of raw —	1
17. Bags (cotton) for tobacco manufacturers in South Africa. Suppliers of —	1
18. Bangles (glass). Dealers in —	1
19. „ Enamelling for —	1
20. Barytes. Producers in India of —	1
21. Bee Keeping. Information re —	1
22. Belting-camel — hair and leather — Suppliers of —	2
23. Bersam seeds. Suppliers of —	1
24. Bitumen. Sources of —	1
25. Bone Mill. Estimate for —	1
26. Borax (indigenous). Suppliers of —	1
27. Bottles. Manufacturers in India of glass —	1
28. Boxes. Manufacturers of special wood —	1
29. „ Buyers for wood —	1
30. Brass sheet. Dealers in —	1
31. Brass ware. Manufactures of —	1
32. Brick plant. Estimate for —	1
33. Bundling machines. Suppliers of —	1
34. Button Making Machinery	1
34a. Burr Stones. Indian Sources of —	1
35. Buttons. Manufacturers of thread —	1
36. „ Machinery for and dealers in nuts for —	1
37. Calcium Chloride. Suppliers of —	1
37a. „ Carbide. Imports of —	1
38. Cambric. Suppliers of —	2
39. Canning fruits. Assistance for —	1
40. Canvas. Manufacture of sail —	1
41. Carborundum Powder. Sources and suppliers of —	1
42. Cardboard. Demand for — and particulars of the industry	1
43. Carding machinery for wool	1
44. Casks. Information regarding manufacture, market prices, etc., of —	1

Subject of enquiry.	Number of enquiries.
45. Catechu. Manufacturers of extract of —	1
46. Celluloid Industry. Information <i>re</i> —	1
47. Chalk. Producers of —	1
48. Charcoal. Dealers in mordant —	2
49. " " " wood —	1
50. Chemicals. Manufacturers of aromatic —	1
51. " Imports of —	1
52. " Manufacturers of — in the Bombay Presidency	1
53. Chicory. Manufacturers of — in Bombay	1
54. China Clay. Suppliers of —	3
55. Chocolate. Exporters in Bombay of —	1
56. Cigarettes. Manufacturers in India of —	2
57. Cloth imports into Belgaum District	1
58. Cochineal. Sources and uses of —	1
59. Coffee-roasting factories in Bombay	1
60. Coir matting. Manufacture of —	1
61. Cotton. Suppliers of long staple —	1
62. Cotton Mills. General information <i>re</i> —	2
63. Crucibles. Manufacture of —	1
64. Enamel. Manufacturers of —	1
65. Enamel. Possibilities of — industry in India	1
66. Envelopes. Machinery for making —	1
67. Explosives. Manufacturers in India of —	1
68. Felt industry. Estimate for starting —	1
69. Fire Works. Manufacturers in India of —	1
70. Flour Mills. Estimates for and prospects of —	2
71. " " in Bombay. Names of —	1
72. Fruit Preservation. Information <i>re</i> —	1
73. Fuller's Earth. Uses, sources and producers of —	2
74. Furniture-Making. Literature on —	1
75. " Woods suitable for —	1
76. Gauging Rods. Manufacturers of —	1
77. Ghee. Purification of —	1
78. Ginning Machinery	1
79. Glass Manufacture. Information regarding furnaces, processes, factories, prospects, etc.	6
80. Glaubers Salt. Buyers of —	1
81. Glycerine. Manufacture of —	1

	Subject of enquiry.	Number of enquiries
82.	Gold lace thread. Suppliers of —	1
83.	Grinding stones. Suppliers of —	1
84.	Gums. Gum ghatti, Olibanum and mastic. Suppliers of —	2
85.	Gypsum. Sources, uses and export markets	2
86.	Hand looms. Suppliers of —	2
87.	Hand loom weaving in Bombay Presidency. Information re —	1
88.	Healds, reeds, etc. Suppliers of —	1
89.	Hosiery. Manufacturers in Bombay Presidency —	2
90.	Hydrogen. Suppliers of —	1
91.	Hydrogenation of vegetable oils. Literature on —	1
92.	Indigo. Dealers in —	1
93.	Inks (printing). Dealers in —	1
94.	Iron Sulphate. Dealers in —	1
95.	Knitting machines. Dealers in —	3
96.	Labels (cloth). Manufacturers in India	1
97.	Lac. Cultivation in Panch Mahals	1
98.	Lacquer ware. Suppliers of —	1
99.	Lasts (Shoe). Manufacturers of —	2
100.	Lead (Sheet). Demand for — in Bombay	1
101.	Liquorice root. Exporters of —	1
102.	Machinery. Miscellaneous enquiries re —	3
103.	Manganese. Dealers in —	1
104.	Manures. Dealers in artificial —	1
105.	Match manufacture. Information and literature regarding woods, chemicals, machinery and sites suitable for —. Also miscellaneous enquiries	12
106.	Mercerising yarn. Information re —	1
107.	Methyl Alcohol. Dealers in —	1
108.	Mica. Dealers in —	1
109.	Milk. Laws and regulations governing import of sweetened and unsweetened —	1
110.	Mines. List of —	1
111.	Mother-of-pearl shells. Suppliers in Bombay of —	1
112.	Motor Cars bodies. Manufacture in India of —	2
113.	Mowha flowers. Production and prices of —	2
114.	Nails. Manufacture of wire —	1

Subject of enquiry.	Number of enquiries.
115. Ochres, red and yellow. Dealers in.— purchasers of — ..	2
116. Oil cakes (various). Exporters of — ..	3
117. Oil, castor, for aero engines. Makers of — ..	1
118. „ „ Manufacturers of — ..	1
119. „ cinnamon. „ ..	1
120. „ cocoanut. „ ..	3
121. „ fish. „ ..	1
122. „ linseed. „ ..	2
123. „ mustard. „ ..	1
124. „ olive (country). „ ..	1
125. „ palm. Importers of — ..	1
126. Oil factories. Information re — ..	3
127. „ pressing plant. „ ..	1
128. Oils, essential. Manufactures of — ..	3
129. „ for hair. Information re markets for — ..	1
130. Oxide (red) of iron. Dealers in — ..	1
131. Paints and Varnishes. Manufacture. Prospects of — ..	1
132. Paper and paper pulp. Information regarding manufacture, machinery, site for mill, markets, imports, prices, etc., etc.	6
133. Pencil manufacture. Information re — ..	1
134. „ making machinery. Information re — ..	1
135. Perfumery. Dealers in — ..	1
135a. Petrol substitute. Regulations re manufacture of — ..	1
136. Photography. Facilities in Bombay for training in — ..	1
137. Pickers. Information re manufacture of — ..	1
138. Polish. Information re materials for boot — ..	1
139. Pottery industry in Bombay Presidency. Information re — ..	1
140. Printing machinery. Dealers in — ..	2
141. Printing on tins. Information re — ..	1
142. Railway stock and plant. Buyers of — ..	1
143. Rat guards. Manufacture of — in India ..	1
144. Rice Machinery ..	2
145. Ropes. Imports and manufacturers of — ..	1
146. Rubber manufacture. Information re — ..	1
147. „ „ Facilities for analyses of — ..	1
148. Safes. Manufacturers of — ..	1
149. Saltpetre. Market price of — ..	1
150. Sand. Dealers in — ..	1

Subject of enquiry.	Number of enquiries.
151. Sand paper. Paper suitable for manufacture of — ..	1
152. Saw Mills. Prospects and Estimates of — ..	2
153. Screws, wood. Information re manufacture of — ..	1
154. Silk, artificial. Materials for making — ..	1
155. Silk sewing thread. Suppliers of — ..	1
156. Silk cocoons. Purchasers of — ..	1
157. „ raw. Dealers in — ..	1
158. Sizing Machine. Particulars regarding — of dealers in — ..	2
159. Shipping agents in Bombay ..	1
160. Shoes. Rope soled canvas. Buyers of — ..	1
160a. Soap industry. Information re — ..	1
161. Soap-making machinery. Information re — ..	1
162. „ „ Chemicals. „ „ ..	1
163. Soap stones. Uses and producers of — ..	2
164. Spinning machinery. Information re — ..	2
165. Spools. Woods suitable for — ..	1
166. Squills. Dealers in — ..	1
166a. Sugar factories in India. Information re — ..	1
167. Tablets. Plant and processes for making — ..	1
168. Talc. Producers of — ..	1
169. Tanning industry in India. Information re — ..	1
170. Tent cloth. Specification for — ..	1
171. Textiles. Information re manufacturers of various — (e.g., drills various, mulmul, Melton cloth, shirtings, bunting, flannelette, press blankets, etc.) ..	5
172. Tungsten ore (Wolfram). Mines of — ..	1
173. Varnish. Formula for shellac — ..	1
174. Waggons for transport of coal and other materials ..	8
175. Weaving accessories. Dealers in — ..	2
176. Wheels and axles of steel. Market for — ..	1
177. Wire. Iron and steel. Manufacturers of — ..	1
178. Wolfram. Buyers of — ..	1
179. Wood-wool. Buyers of — ..	1
180. Yarn, cotton. Information re — (e.g., output, production of 40's and above, imports and importers, makers, etc., etc.) ..	6
181. Yarn, silk. Dealers in — ..	2
182. Zinc oxide. Producers of — ..	1