

Report on the working of the Industries
and Commerce Department.

No. 5700-50—I. & C. 165-18-7, DATED 21ST DECEMBER 1918.

PROCEEDINGS OF THE GOVERNMENT OF HIS HIGHNESS
THE MAHARAJA OF MYSORE.

GENERAL AND REVENUE DEPARTMENTS

READ—

Report on the working of the Industries and Commerce Department for the year 1917-18 received with letter No. 3384-285, dated the 5th October 1918, from the Director of Industries and Commerce.

Order No. 5700-50—I. & C. 165-18-7, dated 21st December 1918.

Organisation.—With a view to systematise work and ensure special attention to questions relating to the development of Commerce in the State, the Industries and Commerce Department was re-organised in August 1917 and a separate Commercial Section was constituted under a Special Officer of the Department. A detailed programme of work for the Commercial Section was also laid down by Government in their Order No. 8413-63—I. & C. 148-17-14 of the 22nd February 1918.

Staff.—Mr. V. Rangaswamy Iyengar was in charge of the Department as Director throughout the year. In September 1917 Mr. C. Ranganatha Rao Sahib was appointed as Deputy Director of Commerce and Statistics and placed in charge of the Commercial Section under the Administrative Control of the Director. Mr. K. H. Ramayya, Assistant Director and four Probationers were attached to the Commercial Section. In December 1917, Mr. R. Vyasa Rao was appointed Special Officer for the investigation of mineral industries and at the end of the year Mr. S. G. Shastry was appointed Industrial Chemist of the Department and attached to the Government Soap Factory.

Large Industries.—Arrangements were finally concluded for working the iron-ore of the Bababudan Hills with the aid of charcoal and steps are being taken to complete all the operations necessary to instal the plant at Benkipur.

The Director, Sandalwood Oil Factories in Mysore, has submitted a separate report on the working of the factories which will be dealt with in a separate order.

(A) INDUSTRIAL WORK OF THE DEPARTMENT.

The Director is requested to publish his report in future in two parts, the first part containing all essential information of general value to the public and the other, departmental and other matters of a purely confidential or commercial character which need not be published.

The work of the Department fell as usual under three heads:—

- (a) Investigation into the possibilities of new industries.
- (b) Financial and expert assistance to the people to start new industries and for improving existing industries.
- (c) Pioneering by the Department and developing the commercial side of the concerns managed by the Department.

Progress was greatly retarded in every direction throughout the year on account of the difficulties experienced in procuring machinery.

(a) *Investigation into the possibilities of new industries.*—The Special Forest Officer continued the investigation of forest industries generally and the manufacture of paper pulp and paper, manufacture of strawboard, improvement of lac cultivation and investigation of new sources of important tanning materials. The scope for new mineral industries was investigated partly by the Geological Department and partly by a Special Officer attached to the Industries and Commerce Department who has

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been devoting special attention to one or two specific industrial problems. The investigation of kaolin deposits was taken up and an experimental washing plant has been constructed at Bangalore. A large number of samples was collected and sent for analysis. The results have proved promising and a scheme is being prepared for the development of porcelain manufacture.

The Industrial Chemist was mainly in charge of the Soap Factory but other questions, such as, the manufacture of essential oils, recovery of glycerine from the waste products of the Soap Factory, have been taken up for investigation. Arrangements have been made to utilise the various laboratories in the State for the investigation of chemical industries likely to lead to practical results in the State.

(b) *Financial and expert assistance to the people.*—The total amount for which applications for loans and hire purchases were received during the year was Rs. 3,59,900. Of these 43 applications totalling Rs. 2,61,553 were sanctioned and 46 applications were rejected or withdrawn. Seventy applications were pending at the close of the year. Among the more important of the loans sanctioned during the year was one for Rs. 50,000, for the Tile Factory at Tirthahalli and Rs. 30,000 to the Mysore Economic Union for the extraction of oil by the solvent process. The Anderson Oil Expellers installed with the help of the Department have been financially very successful. A new plant of the same type has been recently established in Davangere. Having regard to the large quantities of oil seeds exported from the State and the necessity to conserve as much of the oil cakes as possible for the improvement of agriculture, the question of placing the entire oil seed industry on a permanent basis is engaging the attention of the Department.

Sugar-cane Mills.—Though some of the jaggory boiling installations did not work satisfactorily during the year, Government are glad to note that in the few installations where there was proper organisation for the steady supply of cane, the result was satisfactory. About 5,000 maunds of good jaggory are reported to have been manufactured in the installation at Hudi, Bangalore Taluk in 2 months at a net cost of 2 annas 3 pies per maund. In the installation at Chiksagere, Koratagere Sub-Taluk, 4,584 maunds of good jaggory were manufactured. Government consider that for the expansion of sugar-cane cultivation in the State, the success of such installations has to be established beyond reasonable doubt. The centres for starting such concerns should be selected with the utmost care so as to assure not merely a sufficient supply of cane but good business organization for its working. The results of experiments said to be under way for introducing a combination of boiling with open fire and steam will be awaited with interest.

Army blankets.—At the instance of the Indian Munitions Board, the supply of standard army blankets was organised and it is gratifying to note that the monthly supply rose from 223 in February 1918 to ten times that number in June 1918. Blankets of a total value of Rs. 33,000, were supplied during the year. Government consider that the experience here gained by the Departmental Officers in the organisation of this industry should be utilised to the fullest extent in organising similar industries in the State.

Weaving Factory.—The Factory sold 681 fly shuttle looms, 140 fly shuttles and tappets valued at Rs. 12,153 during the year and trained 750 weavers in the use of improved looms. The Textile Assistant devoted considerable attention during the year to the development of weaving in the districts. The factory sold cloths valued at Rs. 34,750 and earned a net profit of Rs. 4,408. The use of the Jacquard loom for the manufacture of indigenous patterns has been established and experiments for the manufacture of army blankets on the fly shuttle loom have been successful, thus opening a new field for the introduction of fly shuttle looms. Government have recently laid down the lines for the future development of the Weaving Factory so as to secure uniform attention to (1) the working of the factory as a commercial concern, (ii) the conduct of experimental work for introducing new patterns, (iii) methods for the higher training of weavers and (iv) demonstration work in the districts. Proposals have also been submitted by a Special Committee appointed with Mr. Chatterton as Chairman to make recommendations for the immediate development of the handloom industry in the State and these are now under the consideration of Government.

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(c) PIONEERING BY THE DEPARTMENT AND DEVELOPING THE COMMERCIAL SIDE OF THE CONCERNS MANAGED BY THE DEPARTMENT.

Central Industrial Workshop and Stores.—To meet the long-felt want of an institution to manufacture, repair, alter, design and adapt machines, the workshop of the Public Works Department was reorganised into a Central Industrial Workshop with separate Departments, for Engineering, Instruments and Art and Stores. In spite of the difficulties in securing machinery due to the war, every effort was made to equip the workshop efficiently. Arrangements were made to keep a large stock of workshop materials and accessories required for Industrial concerns and of raw materials required for Government Factories in the Stores. Government are glad to note that the workshop turned out work valued at Rs. 1,27,512, and earned a net profit of Rs. 17,602-8-11. Government agree with the Director that for the development of Industries in the State, the further development of the workshop is essential and are pleased to direct that proposals in the matter be submitted early.

District Workshops.—In September 1917, a scheme for the opening of workshops at all District Headquarters was sanctioned by Government with a view to undertake ordinary repairs to machinery and to train people in handling them. The District Workshop at Shimoga is nearly completed and the District Boards of Chitaldrug and Tumkur have also come forward with an offer of half the cost of construction and maintenance of the workshops at the respective places. The Director of Industries and Commerce is requested to expedite arrangements to open them.

Soap Factory.—The new soap making plant was worked only for a part of the year and soap worth about Rs. 19,800 was manufactured and sold in the year. The factory is reported to have yielded a profit of Rs. 2,590. It is gratifying to note that the Mysore Soap has become popular in the market and that experiments in the manufacture of toilet soap have been successful. Attempts should be made to arrange for the local supply of the raw materials, as far as possible, to increase the output and to utilise the waste products of the factory.

Metal Factory.—The establishment of this factory was sanctioned in October 1917. Owing to inevitable delay in completing the installation, the factory did not work during the year. The installation has since been completed and the plant is now capable of turning out articles worth Rs. 10,000 a month.

Button Factory.—This factory has been working at a small loss. It is reported that by the addition of automatic lathes and the larger employment of boy labour, its working will improve.

Conclusion.—Government are gratified to note that in spite of unfavourable conditions created by the War, the Department was able to make appreciable progress in the several schemes started during the year. It is however necessary to take special care in developing all concerns on strictly commercial lines.

(B) COMMERCIAL SECTION OF THE DEPARTMENT.

The Commercial Section of the Industries and Commerce Department constituted under a Special Officer commenced work in October 1917. The office was directed to pay special attention to the following items:—

- (a) Revision of the Industrial Survey of Mysore.
- (b) Collection and publication of trade statistics.
- (c) Establishment of a Bureau of Commercial Information.
- (d) Standardisation of Weights and Measures.
- (e) Formation of Central and District Museums.
- (f) Development of Joint Stock Companies.
- (g) Investigation of Financial Assistance to Industrial Enterprises.
- (h) Development of the Arts and Crafts Depot.
- (i) Land Mortgage Bank.
- (j) Cotton Mills at Mysore and Bangalore.
- (k) Commercial guide and Directory for the State.

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2. *Collection and Publication of Statistics.*—Special attention was devoted during the year to the compilation of commercial statistics and the following publications were taken in hand:—

- (i) Statistics of rail-borne trade in the State for 1916-17.
- (ii) Review of trade for 1916-17 based on the figures of rail-borne trade for four years.
- (iii) Wholesale prices of 41 commodities in Bangalore in 1916-17.
- (iv) Prices of principal commodities since July 1914.
- (v) Weekly market report of prices in Bangalore, Mysore and Davangere.
- (vi) Quarterly report on the rail-borne trade in Mysore. (It is proposed to incorporate in this return information regarding places of origin of imports and destination of exports.)

3. *Bureau of Commercial Information.*—Mr. K. H. Ramayya, Assistant Director, was in immediate charge of this Bureau.

The Library of the Industries and Commerce Committee was transferred to this section. Proposals are under consideration for stocking the library with an up-to-date collection of important commercial books and journals. Commercial Correspondents continued to furnish commercial information from Madras and Bombay. Kanarese translations of statistical publications of the Bureau are being prepared. Government consider that this activity of the Commercial Section needs development. To make the information easily available to the merchants, prompt publication of the statistical information in Kannada in the Gazette is very important. The Deputy Director is requested to submit proposals for securing prompt publication.

4. *Employment Registry*—A beginning was made in working this scheme during the year and 13 applications were received from commercial firms. The scheme should be developed so as to be of real help to persons in need of employment in industrial and commercial concerns.

5. *Commercial Museum.*—The preliminary arrangements are being attended to and the Museum is expected to be opened shortly.

Owing to the restriction of facilities for Commerce due to the War, the high prices of grain and the heavy duties imposed on the Deputy Director in connection with the control of prices, the programme laid down could not be given effect to to any material extent. Government however trust that all the preliminary arrangements necessary to supply the people with correct commercial information and help in the development of trade will be completed by the end of the calendar year 1919 at the latest. The Deputy Director is requested to submit through the Director a revised programme of work in accordance with the instructions issued above.

P. G. D'SOUZA,

Secy. to Govt., Depts. of Edn. & Agri.

To—The Director of Industries and Commerce in Mysore.
The Deputy Director of Industries and Commerce in Mysore.
The Heads of Departments.
The Deputy Commissioners of Districts.

PRESS TABLE.

Exd.—G. W. B.

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No. 3384—285.

OFFICE OF THE DIRECTOR OF INDUSTRIES AND
COMMERCE IN MYSORE,
Bangalore, 30th September—5th October 1918.

From

V. RANGASAWMY IYENGAR, Esq., A.C.E., B.C.E.,
*Officiating Director of Industries and Commerce in
Mysore, Bangalore.*

To

*The Secretary to the Government of His Highness the Maharaja of Mysore,
Departments of Education and Agriculture, Bangalore.*

SIR,

I have the honour to submit my report on the working of the Industries and Commerce Department, for the official year 1917-18.

1. *Preliminary.*—For purposes of this report the work of the Department, has been classified under the following heads:—

I. Administration.

II. Industries Section.

- (a) Industries under operation.
- (b) Industries under investigation.
- (c) General work of the Department Takavi Loans.
- (d) Government aided industries.
- (e) Development of Art Industry.

III. Commercial Section.

2. Government, in their Order No. 1090-140—I. & C. 48-17-1, dated 1st August 1917, were pleased to re-organize the department and constitute a separate Commercial Section, and the department was made permanent on a nonpensionable basis. The question of having a Workshop for the department was also decided in Government Order No. 3005-55—I. & C. 144-16-2, dated 17th September 1917 and the Public Works Workshop which was till that date under my administrative control was finally transferred to the Department and constituted as Central Industrial Workshop.

ADMINISTRATION.

3. Mr. V. Rangasawmy Iyengar, A.C.E., B.C.E., continued to hold charge of the Department as Officiating Director, during the year.

4. Mr. C. Ranganatha Rao Sahib, B.A., B.L., who was Assistant Director of Sandal Oil Factory, was appointed Deputy Director of Commerce, from 1st October 1917, for charge of the newly constituted Commercial Section of the Department. Mr. K. H. Ramaiya, B.A., Bar.-at-Law, Assistant to Director, was appointed as Assistant Director of Commerce to help the Deputy Director and four Commerce Probationers have been appointed to work in this section.

5. Mr. N. Lakshminarasimhaiya, B.A., B.E., Superintendent of Industries, was appointed Personal Assistant to the Director, on 21st December 1917. Mr. R. Ananthasubramanyam, B.A., B.L., District Economic Superintendent, was placed on Special Duty for organizing the supply of Army Blankets to the Indian Munition

Board as per Government Order No. 5097-108—I. & C. 168-17-4, dated 27th November 1917. Government were pleased to appoint Mr. R. Vyasa Row, in Government Order No. 5841-5—I. & C. 77-17-5, dated the 18th December 1917, for the investigation of Mineral Industries in the State. Mr. Mahamadi, Soap Expert, retired from Government service on the 1st June 1918, and Government were pleased to appoint Mr. S. G. Sastri, B.A., F.C.S., M.Sc., as Industrial Chemist of the department. During the year Government were also pleased to transfer Mr. V. Ganesh Iyer, Assistant Engineer, Public Works Department, as Superintendent of the Central Industrial Workshops. Messrs. Govinda Pillay and Krishna Rao were appointed as Deputy Superintendent and Assistant Superintendent of the Workshops.

The Director toured for 115 days.

II. INDUSTRIES SECTION.

INDUSTRIES UNDER OPERATION.

6. *Central Industrial Workshop.*—On the transfer of the Public Works Workshop to this Department, it was felt necessary to re-organize it and a first step, it was divided into three different sections:—

- (1) Engineering Section.
- (2) Instrument and Art Section, and
- (3) Stores.

The Engineering Section was further sub-divided into:—

- (a) Repair Section, and
- (b) Manufacturing Section.

It was hoped that this would enable the Superintendent to exercise better check on the work and also ensure more rapid progress. The Balance sheets of these sections have been prepared separately and are shown in statement I (a) to (d) accompanying this report.

In the Engineering Section, the value of work turned out during the year, amounted to Rs. 1,12,887-6-5, resulting in net profit of Rs. 13,819-8-11. In the course of the year, several proposals were submitted and sanctioned by Government for improving the efficiency and increasing production in spite of the War, we were able to procure half a dozen turrent lathes, a Saw Mill, an Air Compressor and other machinery.

The annexed list shows some of the articles that have been manufactured in the Workshop during the year.

7. *Instrument Section.*—The Instrument Section which was organized as a separate section only in January of this year, was able to show a progress of Rs. 14,625-10-4, and a net profit of Rs. 3,793. The work of this section is of a miscellaneous nature as one of its chief functions is to use up and convert into useful articles all the scrap and cuttings that accumulate in the Engineering section. That it is quite profitable is shown by the Balance Sheet. The manufacture of prismatic compass and Plane Tables for the Engineering College and a set of Science apparatus at a cost of Rs. 15,000, for the Education Department, is worthy of mention. The manufacture of a set of standard seers for the Revenue Commissioner has also been recently undertaken and is in progress.

8. *Central Industrial Stores.*—The Stores Depôt, which was sanctioned by Government for the supply of parts of machinery and other accessories to the Industrial concerns started under Government aid, was reconstituted into an independent Central Industrial Stores. Besides keeping a large stock of materials required for the Industrial Workshop an adequate stock of crude oil, lubricants and other accessories required by the various industrial concerns financed by the State is maintained. The raw materials required for the different Government factories are also purchased and stocked by the Stores. This has simplified the work of the several factories and has relieved the experts of a good deal of unnecessary correspondence and worry. That the Central Industrial Stores can be developed into a very useful institution goes without saying and the results so far achieved are quite

satisfactory. It is my intention to develop the institution further as soon as I succeed in getting a more spacious building and suitable staff to run it.

*List of articles Manufactured in the Central Industrial Workshops,
during 1917-18.*

- | | |
|---|--|
| 1. Oil Filter Press, 1. | 11. Woollen milling machine. |
| 2. Two Flour Mills. | 12. Paddy Separator. |
| 3. Woollen Carding Machine. | 13. Drilling machine. |
| 4. Soap Plodder. | 14. Power Driven Sugar-cane Mill, 2. |
| 5. Soap Crutcher. | 15. Bullock Driven Sugar-cane Mill, 6. |
| 6. Three and a half H.P. Oil Engine. | 16. Five Centrifugal pumps. |
| 7. Two single cylinder crank throw hand pump. | 17. Soap frames. |
| 8. Five hand pumps of different types, | 18. Soap Dies. |
| 9. Button Lathe. | 19. Rotary Pump for pumping oil. |
| 10. Comb cutting machine. | 20. Soap Pan. |
| | 21. Husk furnace, 2. |

9. *Workshop Buildings.*—The new machinery shed was completed and occupied by the Workshop. The Boiler-smiths' shed and a new Fitters' shed were also completed. A few minor works are in progress and it is hoped to complete the works and work out the estimate, completely during the current year. The outlay up-to-date is to about Rs. 80,709-9-10, against a sanctioned estimate of Rs. 1,05,841.

10. *Sugarcane Mills.*—Last year I had remarked that the sugar-cane mills started by Government for demonstration had unfortunately not become as popular as they ought to and this I attributed merely to want of adequate arrangement for a regular supply of good cane. These mills can never be successful unless satisfactory arrangements are made for the supply of cane in sufficient quantities to keep the mill going at least for a period of 12 hours daily, throughout the season. Proposals for putting up a furnace at Hudi, near Bangalore, under very favourable conditions were submitted to Government and they were pleased to sanction them. According to this arrangement one Mr. Guruva Reddi agreed to guarantee, a regular supply of cane to the mill for a period of two months and also undertook to buy up the plant if the department demonstrated that good jaggery could be made therein.

The proposals took shape rather late in the season but the construction work was pushed on briskly and the mill commenced operations on 1st March 1918. Two sets of furnaces were put up and the plant worked till about 20th May 1918. The total quantity of jaggery manufactured was 4,594 maunds and the realizations came to Rs. 861. The rate charged was only 3 annas per maund of jaggery partly in consideration of the fact, that the mill was supplied by the party, free of rental and partly because he guaranteed to give us a regular supply of cane. The experiment proved so far quite a success and the quality of the jaggery was uniformly good. That we were able to manufacture 5,000 maunds in 2 months at a net cost of only about Rs. 700, i.e., 0-2-3 per maund, proves conclusively that what is wanted is good organization.

11. At Hudi, I made certain experiments with steam-boiling and it looks to me that a combination of boiling with open fire and steam may in the end prove effective. But it is too early to talk about it now.

12. The Hudi installation attracted a good number of raiyats from neighbouring villages, and it is anticipated that the plant will work continuously for at least 5 months in the coming season provided the seasonal conditions are favourable.

13. Among the older installations, the plants at Chiksagere and Sabbanhalli did some work and Statement No. II, shows the actuals realized.

14. It was my intention not to work any of the older plants this year, as our experience last year was far from satisfactory. But the people of Chiksagere and the Deputy Commissioner pressed me to open the factory, and I consented to do so only on condition that the raiyats undertook to bring a regular supply of cane. They agreed to this and the factory started work rather late. As at Hudi, the jaggery turned out was good throughout and the total quantity manufactured came to 4,584 maunds. The realisations came to Rs. 1,106-13-4, against the amount of Rs. 1,062-6-1, spent on working expenses leaving a small profit of Rs. 44-7-3. This again goes to show that these jaggery factories are really sound propositions and if preserved a very large and profitable business can be built up.

15. The Sabbanhalli Co-operative Society, started milling work in December and after working nearly for a month stopped work. The supply of cane in the locality was limited and the output of the concern during the year was only 3,192 maunds. The question of the future working of this plant has been taken up with the Registrar of Co-operative Societies and it is hoped that some satisfactory solution will be arrived at before the next season commences.

16. The plant at Shikarpur did not work as the lessee did not take sufficient interest in it. An application for the purchase of the complete plant at a cost of Rs. 8,000 was received from a party in Sorab and it has accordingly been sold to him. The plant is being shifted from Shikarpur and erected at Sorab.

17. The Mill that was sold to Sakrepatna Co-operative Society worked at a loss last year and on the representation of the Society, Government ordered that it should be taken back by the Department. Enquiries made go to show that it is extremely difficult to organize an adequate supply of cane owing to the fact that cane is grown in the interior of the country and no transport facilities are available. It is obvious therefore that the site selected was most unsuitable. The plant will be shifted to some better locality next season.

18. As regards the Agaram Plant, the proposed improvements in the furnace were effected but by the time the improvements were completed, the season was close on hand and the plant was not worked. Satisfactory arrangements with influential landlords in the place are being made for the supply of cane in the coming season and it is anticipated that it will enable us to come to a decision as regards the future working of this plant.

19. Our work in this connection can be considered successful only when we can convince private capitalists that these factories pay well when worked on sound lines. They will then come forward to instal them and undertake the manufacture of jaggory as a business independent of the sugar-cane cultivation. I hope to demonstrate that these factories are as paying concerns as rice mills, oil mills, flour mills, etc., and that they could be installed in areas where we can get 100 acres of cane planted every year. To my mind the difficulties do not seem to be so great and I have every hope that we can easily have at least 100 such mills in the State, at no distant date.

20. *Government Soap Factory.*—In my last year's report it was mentioned that a complete plant was undertaken to be manufactured in the Central Industrial Workshops with the aid of sketches taken from the Calicut Soap Factory. The plant was nearing completion last October when intimation was received from England that the plant ordered from Messrs. George Scott & Sons in 1915 was shipped. The plant actually arrived at site in November 1917. In view of the fact that Government had sanctioned a capital outlay of Rs. 15,000 and that the plant from England cost as much as Rs. 7,000 and that arrangements had to be made for a boiler, engine, pumps, pumping tanks and shafting and other accessories to make the unit complete, the matter of housing the plant either in a rented building or a building of its own, engaged serious consideration. Considering all circumstances, it was decided to locate the plant in a new building which was to be put up as part of the Workshop Improvement Works. The building was completed and the plant erected ready to start operations in the last week of February. Statement III shows the financial position of the factory. During the first four months about 19,800 rupees worth of soap was manufactured and sold in the market. The factory has yielded a profit of Rs. 2,580. The Mysore Soap has become popular and is in demand in the market.

21. I need not explain in detail the process of soap manufacture. Suffice it to say that in our factory we use only vegetable oils, such as cocoanut oil, groundnut oil and Ippey oil. Besides the above, we also use caustic soda, rosin and salt. The plant is now capable of turning out *10 tons of soap per month*. The supply of salt is from Madras. The most important of the oils, cocoanut oil is imported from Cochin. Due to war, the price of caustic soda has gone up very high. We are at present obtaining our supplies from the Bengal Pharmaceuticals and Calcutta Chemical Works. Groundnut oil and Ippey oil are the only oils that are supplied locally. It will thus be seen that over 50 per cent of the raw materials required for the Soap Factory have to be imported.

22. The glycerine which is a very valuable bye-product in the manufacture of soap is not at present recovered but is allowed to run to waste in the form of lye.

23. With a view to put the Soap Factory on a more paying basis, it is proposed to add a causticising plant to manufacture, caustic soda locally and to increase the output of the soap factory to 50 tons per month. This will then admit of a Glycerine Recovery Plant being added (when the necessary certificates for importing the same from abroad are obtained) adding thereby to the profits considerably. The detailed plans and estimates for the extension of the factory are being worked out.

24. Till now the soap that was manufactured was largely washing soaps. A few experiments were conducted in the manufacture of toilet soaps and they have been successful. Arrangements are being made to obtain supplies of essential oils on a larger scale and one or two varieties of toilet soaps will be made shortly and put on the market.

25. Statement No. shows the results of working of the Experimental soap plant at the Institute of Science. This plant continued to work till December 1917, and was finally shut down when the installation of the larger plant was taken on hand.

26. *Government Weaving Factory.*—Statements Nos. IV, *a*, *b*, *c* and *d*, show the affairs of the Government Weaving Factory as they stood on 30th June 1918.

27. Goods to the value of Rs. 34,750, were manufactured and sold. This resulted in a net profit of Rs. 4,408. It is interesting to note that the value of the high class silk and lace goods turned out on the jacquard looms amounted to Rs. 9,000, which shows clearly that the use of jacquard looms for the manufacturing of indigenous patterns has passed the experimental stage and is a sound business proposition. It will be therefore advantageous if we could instal a few more of these machines. During the year thirty looms were at work and the number of men engaged in weaving, averaged sixty-five daily. Every effort is made to increase the output of the factory.

28. The experimental work undertaken in the Factory are the following:—improving the warping and sizing machines of last year,—designing and building a new silk winding machine,—a loom for weaving mats—tape loom, etc.

29. Experiments made to manufacture army blankets on fly shuttle looms have been successful. Ten looms are being fitted up at Hunsur to be worked Departmentally with a view to increase the output of army blankets to the Indian Munitions Board.

30. The Demonstration parties continued to do useful work but the progress was somewhat handicapped owing to want of a larger staff. Six hundred and eighty-one fly shuttles and 140 tappets valued at Rs. 12,153 have been sold and 750 weavers have been trained to work on the improved loom.

31. Government in their review of the last year's Administration Report observed that the commercial aspect of the industry had not been sufficiently investigated nor any effective measures taken to enable the weaver to obtain yarn and dispose of the articles produced by him. Much attention in previous years could not be paid to this aspect of the question as the staff appointed was limited and the Textile Assistant was busy organizing the work of the Weaving Factory.

32. During the year, the Weaving Factory was placed under the supervision of one of the Inspectors under the general management of the Textile Assistant who was directed to concentrate his attention to the development of weaving in the Districts. Several important weaving centres were inspected by him and the condition of the weavers has been carefully studied. It is hoped that during the current year, some satisfactory arrangements for the supply of yarn to the weavers and the marketing of their goods will be effected.

33. The work in the factory proper could not be developed due to the want of accommodation. The production of the factory can be increased only if more handlooms are fitted up. Steps are also being taken to get a few power looms. Government have recently sanctioned the reorganization of this section and action will be taken to provide extra accommodation urgently required and to open a Workshop for the manufacture of loom parts and to open a Museum. Plans and estimates for a permanent building for the factory are being prepared and will be submitted to Government at an early date.

34. *Supply of Army Blankets to the Indian Munitions Board.*—In the middle of September 1917 the Indian Munitions Board addressed the Government of Mysore and wanted to know whether army blankets could not be supplied from Mysore. A small sample piece was forwarded to the Board for their approval. The Board approved of the sample and wanted a sample blanket made out and sent to them. At my request Government were pleased to post Mr. R. Ananthasubramanyam, District Economic Superintendent, Bangalore, on special duty to organize the supply of these blankets and he took charge of the work on the 29th November 1917. Samples of standard blankets from the Local Commanding Officer were obtained and distributed in Satanur, Chiknayakanahalli and Hunsur. Advances were made to them and arrangements were also made for the supply of mill yarn. A few blankets were made and sent to the Board for approval. The Board accepted the samples and placed an order for 10,000 blankets to be supplied during the year. Systematic work was then commenced. Yarn is supplied by Messrs. B. K. Subbaiya Chetty and Sons, Bangalore, and is sent to Hunsur and other places where these blankets are made.

The supplies made to the Board are as follows :—

1. February	....	....	223 blankets supplied.
2. March	....	....	688 do
3. April	....	....	1,284 do
4. May	....	....	1,403 do
5. June	....	....	2,220 do
			Total
		....	5,818

35. The value of blankets so far supplied comes to Rs. 33,070. With a view to increasing the supply of yarn, a carding machine is being built in the Workshops for Mr. Subbaiya Chetty. We are also building an experimental power driven machine for milling the blankets which is now done in a laborious way by manual labour.

36. Opportunity was taken of the situation to instal ten fly-shuttle looms at Hunsur for weaving blankets and some of the looms have been erected and have started work. It may also be stated here that the supply made during the months of July and August of this year come to 2,035 and 4,782, respectively. The rates paid to the weavers are liberal and there is no doubt that the weavers have been much benefitted. They are sure of their wages as arrangements have been made to supply them with raw materials regularly and to buy the finished articles from them as soon as they are ready. How happy will the cotton weavers also be if some such arrangement can also be made for their produce!

37. *Government Metal Factory.*—A scheme for the manufacture of sheet metal goods was sanctioned by Government in their Order No. 4130-2—I. & C. 85-17-9, dated 19th October 1917. A suitable plant consisting of a Press, a few Spinning Lathes, and 3 Shears was purchased in Bombay for a sum of Rs. 16,000 and was erected in a rented building in the City on the Mysore Road. There was some inevitable delay in completing the installation early due to difficulties in procuring a Motor and other accessories. Hence it was not possible to start operation this year. But the installation has since been completed and has also started work. It is found that more than Rs. 10,000 worth of goods per month can easily be turned out by the Factory. It goes without saying that if the Factory should pay, it must be run to its fullest capacity. That there is a strong demand for these goods is evident from the large number of enquiries that are being received for the sale of the finished articles.

38. At present the brass sheets required for the factory are being obtained locally and arrangements to get them wholesale from abroad are being made. The question of utilising the brass scrap is also an important one and to get the best out of them steps are being taken to convert them into various kinds of brass fittings. It is under contemplation to add a section for the manufacture of bell metal goods and hammered work for which also there is a good demand. I see no reason why this factory cannot meet all the wants of the State. Is there any special reason that we should allow such places as Kashmir, Madura and Dindigal to send such large

quantities of these articles into our market? Every house uses these wares and when there is a ready made market, why allow foreign countries reap the profit?

39. *Lac and Dye Works.*—A scheme for the manufacture of a lac and dye and varnish works was submitted to Government. As the outlay involved was large, the scheme was not sanctioned. Subsequently a modified proposal for the manufacture of lac dye only from the cake dye sold in the market involving a small capital outlay of Rs. 5,500 and a working capital of Rs. 5,800 per mensem sanctioned by Government in their Order No. 8090-3—I. & C. 150-16-11, dated the 13th February 1918 and they directed that temporary arrangements for the building required may be made. Unfortunately no satisfactory arrangements could be made till now. But now that Mr. Sastri has been appointed as Industrial Chemist and is in charge of the Soap Factory, it has been decided to erect the required plant along side the Soap Factory and place it under his charge. Arrangements are made to fit up the plant and start work at an early date.

40. *The Button Factory.*—The Button Factory started its operations in June 1917 but not much progress was made till October as several initial difficulties had to be overcome and as some important machinery were not and are not still supplied by Messrs. Massey & Co., with whom the order had been placed. To admit of more vigilant supervision and to afford greater facilities to the working of the factory, it was shifted to a building inside the Workshops. Arrangements were also made to manufacture the machinery locally and it was decided to add automatic lathes and comb-making machinery to the factory. The affairs of the factory for the first half year were not satisfactory. Boys had to be trained in the art and the price of raw-material was very high. The result was that on 31st December 1917 the factory showed a net loss of Rs. 1,630. The affairs have considerably improved since then and Statement No. V shows the assets and liabilities of the factory as on 30th June 1918. The net loss to Government has been Rs. 161-12-10 exclusive of the pay of the Button Expert. It is hoped that with the addition of the automatic lathes, the concern will work better and will be put on commercial basis within the period of three years prescribed in Government Order No. 7108-11—I. & C. 197-15-2, dated 31st May 1916.

41. *District Workshops.*—Government in their Order No. 3005-55—I. & C. 144-16-2, dated 17th September 1917 in addition to sanctioning the formation of a Central Industrial Workshop sanctioned my proposals of opening a small workshop in each district excepting Bangalore and Mysore to undertake ordinary repairs of machinery and to be the centres of training people in the Districts to handle machinery. The District Workshop is also to afford facilities for practical training to students of the District Industrial Schools and to artisans. The cost of each workshop was estimated at Rs. 10,502 and it was proposed to take up such of the Districts at once as were prepared to contribute half the initial cost and recurring expenses. The Districts of Shimoga and Chitaldrug were addressed and on their agreeing to the terms mentioned above it was decided to take up work in those Districts. The Workshop at Shimoga is under construction and is expected to be ready by December 1918. The question of a suitable site for the Workshop at Chitaldrug has not been disposed of by the Deputy Commissioner as yet and hence no progress has been made in this direction. He is being reminded and steps will be taken to get this decided soon.

INDUSTRIES UNDER INVESTIGATION.

42. *Mineral Industries.*—I had remarked in last year's Administration Report that though the question of manufacture of porcelain was being discussed for a long time, no result could be achieved as the information then available as regards the occurrence of kaolin deposits in the State was incomplete. It was therefore considered necessary to depute a Geological Expert specially for this work and Government were pleased to appoint Mr. R. Vyasa Rao of Tata Iron and Steel Company as Special Officer in the Department. Mr. Vyasa Rao joined his appointment on 2nd January 1918 and took up the investigation of kaolin deposits immediately. The records of the Geological Department went to show that deposits of kaolin did exist in the State in patches and that it may be possible to obtain a total supply of 10,000 tons of kaolin of moderately good quality from a number of small deposits

scattered in the hilly regions of Koppa Taluk. Mr. Vyasa Rao set to work and a careful examination of the Whitefield area located a deposit near Krishnarajapuram, 6 miles from Bangalore. Excavation was started and a large quantity of earthwork was done and with a crude boring apparatus available on hand went to a depth of 75 feet from surface in soft sticky kaolin. While work was going on the country was explored and 8 fresh deposits promising a minimum tonnage of 35,000 tons were located in the following places:—

- | | | |
|----------------------|----------------------|-----------------|
| 1. Margondannahalli. | 4. Ramakrishnahalli. | 7. Sulikunte. |
| 2. Kurubarahalli | 5. Mailsandra. | 8. Muthanellur. |
| 3. Heggondanahalli. | 6. Kodati. | |

A detailed examination made of the Sulikunte area 13 miles from Bangalore on Sarjapur road showed a big kaolin deposit of a very high class material. It has been proved that Krishnarajapuram deposit alone contains 48,000 tons of raw kaolin which yields 20 to 35 per cent of washed kaolin. Sulikunte area is expected to contain over 30,000 tons.

An experimental washing plant was constructed at Bangalore at a cost of Rs. 745 on the model of the French Sand Settles. The capacity of this tank is one ton washed kaolin per operation. About 45 tons of Krishnarajapuram clay was treated for making fire-bricks and the Royal Paint Works who were in need of a cheap and efficient adulterant purchased over 100 tons of the raw material. A large number of samples representing different grades of materials were collected and sent for analysis. The results have been satisfactory. Some of them show an iron oxide content of above 2 per cent and below 4 per cent and others contain less than 2 per cent iron oxide. Samples of washed material have been sent for analysis and manufacture of porcelain-ware to the Calcutta Pottery Works. Several physical and heat tests on the Krishnarajapuram washed material were also conducted and the results show that it lends itself admirably well for the manufacture of stone-ware. A scheme for the manufacture of stone-ware pipes in the neighbourhood of Bangalore has been prepared and from enquiries received it is hoped that the industry will be started soon. The approximate cost of the scheme is one lakh of rupees and is expected to pay itself out in about 5 years.

43. *Asbestos*.—In addition to the close attention paid to the exploration of kaolin deposits, help was rendered to development of asbestos industry now in the hands of private capitalists. A visit to the Hole-Narsipur area was made and the attention of the promoters was invited to the poverty of Kabbur deposits they were working. More promising areas were pointed out to them and improvements in the manufacture of boiler composition were suggested.

44. *Cement*.—The question of investigation of limestone deposits in the State for the manufacture of cement is also engaging the attention of the Department.

45. *Oil mill*.—Mention was made in my last year's report that it was under contemplation to establish a large oil mill to crush about 8 tons of castor and groundnut oil seeds a day in a centrally situated locality. It will be seen how very valuable this industry is when we look to the traffic of oil seeds and oils. The rail-borne traffic of 1916-17 shows that oil seeds of a total value of Rs. 34,44,807 have been exported from the State and the vegetable oils imported into the State are valued at Rs. 18,14,769. Ever since the proposal of establishing the oil mill was made, an Anderson Oil Expeller Plant capable of crushing about 6 tons of seed a day of 24 hours has been installed by Mr. B. K. Garudachar in Bangalore. Another similar Plant has recently been installed at Davangere and is expected to commence work shortly. Government have been pleased to sanction a loan of Rs. 30,000 to the Mysore Economic Union, Limited, Tumkur to enable them to complete the work. The Plant that is being installed at Tumkur is a very large one and extracts oil by the solvent process, the solvent proposed to be used being benzoine. It is found that in this plant the working expenses are put down in a minimum and the plant can be operated by a couple of coolies. Work at Tumkur is going on briskly and the Managing Agents have been taking steps for completing the Works soon and starting the mill. The Cotton Seed Oil Company that was started in 1914 and collected about Rs. 75,000 worth of shares could not commence operations due to the prohibitive prices quoted by the American Firms for the supply of the requisite plant. A Hydraulic Oil Mill Plant was available for sale in India and the Company was advised to go in for the plant and go in for the

general oil business for the present and to develop the cotton seed oil refinery when normal conditions are restored. No final decision has so far been arrived yet.

46. The three oil mills above referred together with the old Anderson Oil Expeller of Mr. Muniappa, that was working for the past three or four years can deal 30 tons of seeds a day, at the most or about 40 per cent of the total exports of the seeds from the State. The success that has attended our efforts in the year under review is no doubt encouraging and it is hoped in a couple of years more that in the place of the present state of affairs, *viz.*, exporting oil seeds and importing oils, we will be in a position to export oil and stop all imports.

47. *Tile Factories.*—The Directors of the Tirthahalli Tile Factory had stopped work and applied for a loan of Rs. 25,000, from Government to enable them to wipe out their liabilities and to complete the construction of the Factory. After a very careful consideration of the situation it was decided to recommend that the output of the factory should be doubled by the addition of another Circular Down Draught Kiln and a recommendation for the grant of a loan of Rs. 50,000, was submitted to Government in September 1917. Government approved of the proposals and a loan of Rs. 50,000, was sanctioned on the condition that the factory will be handed over to the Department of Industries for a period of two years to complete the works and put the affairs on a satisfactory basis. The loan was repayable in ten annual instalments and an interest of 5 per cent was charged on the same. The Directors of the Company were asked to hand over charge of the concern but as they have not finally settled the claims of the Managing Directors the factory could not be transferred to the Department and no work could be done with the result that no advantage has been taken of the generous help, the Government extended to the company.

48. *The Mysore Tile Factory.*—The Mysore Tile Factory has been making good roofing tiles under instructions given by the Tile Expert from time to time and have decided to extend their business and put up a continuous kiln to burn one lakh of tiles per month.

Detailed plans and estimates of cost were furnished to them and they have applied for the further continuance of certain concessions granted to them as per Government Order No. 6492-8—A. & I. 202-15-2, dated the 10th May 1916. The papers have been submitted to Government with my recommendations and final orders of Government are awaited.

49. A Tile Factory has been started in Tumkur by Mr. Thompson of Tumkur. Necessary plans were furnished to him and the erection of the kiln and machinery was completed under the supervision of the Department. It is expected that work will commence in the near future.

50. On the report submitted by the Tile Expert that clay *in Kolar Tank* is abundant and suitable for tile-making, a *tile factory* to burn 50,000 tiles per month *was started* by a local merchant in June 1918. A large quantity of materials have been collected and orders for the required machinery have been placed.

51. During the year, the Tile Expert visited a village near Hindupur at the request of the local landlords and after conducting the tests and burning sample tiles pronounced the clay to be suitable for tile-making. Estimates of cost have been furnished to him and it is understood he is making arrangements to raise the necessary capital. The Tile Expert visited Harihar and examined the clay along the banks of the Tungabhadra. The clay was found to be suitable for tile-making. The report has been sent to the Deputy Commissioner, Chitaldrug District for further action being taken in the matter. *The construction of a Tile Factory at Hanumanthapur near Bangalore and another at Channapatna* are reported to be fairly satisfactory.

52. *Caustic soda.*—Elsewhere I have mentioned that the manufacture of caustic soda is under active consideration of the Department. The Geological Department have located a saline efflorescence in the neighbourhood of Mandya which is strictly alkaline owing to the presence of sodium carbonate. This material is used lixiviated with water and on evaporating the solution, soda is produced. The Geological Department have recently succeeded in the manufacture of soda ash by the above process. It is possible to convert the soda ash to caustic soda. There are two processes well known in the manufacture of caustic soda. One is by the

addition of Calcium Hydroxide to sodium carbonate and the other by the electrolysis of sodium chloride. In view of the circumstances that good soda ash is available locally and also a supply of limestone at Mandya, it is proposed to instal a causticizing plant there and start the manufacture of caustic soda. Proposals will be submitted to Government very shortly.

53. *Essential Oils.*—Mysore was annually exporting over four lakhs of rupees worth of cardamum seed. But with the war the export was stopped and the price of the valuable commodity fell down considerably. A few pounds of cardamum seeds were sent to the Indian Institute of Science for distillation and the result has been satisfactory. Standard quality oil has been obtained and sent to several essential oil dealers in the world for approval. A few firms have offered to purchase the oil and further correspondence on the subject is going on.

54. The question of distilling other essential oils has also been taken up and an experimental still is being built up in the workshops.

55. *Cotton Mill.*—The Government in response to the wishes of the Davangere Cotton Syndicate who had subscribed among themselves a sum of Rs. 5,000 for conducting preliminary investigations for the establishment of a cotton Mill at Davangere were pleased to sanction a similar sum out of State Funds and also promised to place the services of a special office, at the disposal of the syndicate for the purpose. A meeting of the syndicate was held at Davangere and the following subjects were discussed in detail:—

- (1) Supply of water for the mill, mill-hands, and dye works.
- (2) Supply of Fuel.
- (3) Supply of labour.
- (4) Purchase of suitable machinery, etc., for spinning and weaving the particular required type for local consumption in Mysore.

It was suggested that water-supply could only be guaranteed by pumping water from the Tungabadra at Harihar and the Syndicate were of opinion that further investigations to tap a supply nearer Davangere should be conducted. The supply of fuel and labour were considered to be not insurmountable and as regards the last subject, the opinion was in favour of appointing an Expert from Bombay for drawing up plans and estimates and examining the local cotton and other details. The subject on the whole is still under investigation.

The Government were pleased also to sanction similar concessions to the Mysore Cotton Syndicate and the matter is still under consideration.

56. *Woollen Mill.*—The question of establishing a Woollen Mill in the State has been engaging the serious consideration of the Department. Mention has elsewhere been made of the supply of Blankets undertaken by the Department for the Indian Muntions Board. Large quantities of raw wool are being exported from the State and the supply of yarn for the manufacture of Kamblies on handlooms is in the hands of a few sowcars and consequently the weaver is entirely at the mercy of the sowcars who advance small sums, supply yarn and take away the finished blankets for sale giving nominal wages to the weavers. The indebtedness of the weavers to the sowcar is great and no economical improvement in his condition is possible unless satisfactory arrangements are made for supply of yarn and sale of finished articles. A fairly big sized carding machine and a milling stock for milling handmade blankets are being built up in the Workshops and on their satisfactory completion it is proposed to organize a central agency for supply of yarn and purchase finished articles from the weavers direct without the interference of the sowcars.

57. *Takavi loans and hire purchases.*—Statement No. VI accompanying this Report gives full details regarding the transactions in this head. At the beginning of the year under review there were 30 applications pending final disposal and 82 applications for loans amounting to Rs. 3,59,960 were received during the year. Of these, 43 applications totalling to a sum of Rs. 2,61,553 have been sanctioned by the several sanctioning authorities and another 46 have either been rejected by the Director or withdrawn by parties. The number of applications pending at the end of the year was 70. During the year the amount recovered towards principal was Rs. 41,342-2-9 and towards interest was Rs. 4,314-1-1. The amount drawn from the Treasury ever since the introduction of the loan system for industrial purposes was

introduced in September 1913, comes to Rs. 4,43,724 and the amount recovered was Rs. 1,15,352-2-7 towards principal and Rs. 13,105-1-8 towards interest thereon. The amount outstanding against several private parties on 30th June was Rs. 29,711. Stringent measures in several cases were adopted and the outstandings have since been reduced considerably.

Amongst the loans sanctioned may be mentioned the loan of Rs. 30,000 to the Mysore Economic Union, Limited, of Rs. 25,000 for the Mysore Pharmaceuticals, Limited, of Rs. 50,000 to the Tirthahalli Tile Factory. Mention has been made of these concerns separately.

The number of applications that are being received, it will be seen, is very great. Greatest care is being exercised in the grant of loans for the supply of machinery. It has been the policy of the Department to help those by technical advice and by supply of machinery on Hire Purchase System who can find sufficient money to invest on working capital.

58. It was at one time considered that the rules regarding the grant of these loans required slight modifications. For instance the interest that is being charged is 6½ per cent and the loans are repayable in 7 years and the Hire Purchase loans are to be paid back in 6 half-yearly instalments. The concerns do not work as satisfactorily as they ought to during the first two years they are installed. In the case of pumping installations that are supplied to private bodies on hire purchase terms, the payment of half-yearly instalment is a fact of hardship. The crop raised is once a year and consequently the defaulters are largely of this class. The question of revising the rules has been engaging the consideration of the Department and proposals will be submitted when normal conditions are restored and machinery can be imported from abroad.

59. *Erection of machinery.*—The installations that were taken up for erection in the year were 40 in number out of which 24 have been satisfactorily completed and handed over.

Amongst the large installations may be mentioned:—

- (1) Anderson Oil Expeller at Bangalore.
- (2) Anderson Oil Expeller at Davangere.
- (3) A large Flour Mill at Bangalore.
- (4) 25 H. P. Suction gas engine and rice mill at Bangalore.
- (5) 15 Cwt. Rice Mill at Ganjam.

And of those that are still on hand may be mentioned:—

- Rice Mills at Krishnarajapete, Channarayapatna, Kolar, Tumkur and Davangere.
- Tile Factory at Kolar.
- Small Oil Mill Plants in Chikmagalur, Honnali Taluk and
- 25 H. P. Gas Plant at Asagodu.

In addition, the Department staff has erected the Soap Plant, the Metal Factory and worked the Sugar-cane Plants.

60. The Chief difficulty in completing the installations on hand has been want of complete materials. In almost all cases no one firm is able to give us all our requirements. The required machinery is purchased from different firms and many of the accessories have to be made in the Workshops and supplied to them. This entails some delay no doubt but that is the only course open.

61. *State aided Industries.*—In this section I propose to mention briefly of the information of Government the working of several concerns under the direct supervision of the Department and these which have received large financial assistance from Government.

62. *I. The Mysore Tannery Limited, Bangalore.*—The Government in their Order No. 3312-3—G. F. 84-11, dated 19th February 1912, sanctioned the taking up of 50 per cent of the share capital taken up by the public subject to maximum of Rs. 60,000. The Government own nearly Rs. 53,000 worth of shares in the Institution and have the right to return ½ of the Directors to the Directorate and to have the accounts audited by one of its officers. Since the sale of the Boot Factory which was working at considerable loss, the question of manufacture of suitable leather for European markets was undertaken and brisk work was carried

on till the Government embargo on the export of hides and skins to Europe. Consequent on this, successful efforts are being made to get the goods sold in India and Burma and Straits. The Company published its last Balance Sheet on 30th June 1918 and have declared a dividend of six per cent.

63. *II. The Mysore Economic Union.*—The Government have sanctioned a loan of Rs. 30,000 to this Company in their Order No. 9084-6—I. & C. 175-17-4, dated 9th March 1918 and have reserved the right to appoint 2 Directors on the Directorate. The construction work is proceeding rapidly and the plant for the extraction of oil by the solvent process is in the course of erection. A Hydraulic Oil Mill has been bought in the Central Provinces and arrangements are being made to obtain the same by furnishing the necessary Priority Certificate for the same. It is expected that regular work will be started in another 2 or 3 months.

64. *III. The Art Litho Press.*—The Government transferred the management of this Institution from the Superintendent, Government Press, to the Director of Industries in March 1917. During the period ending April 1917 to June 1918 the total value of work executed by the Press came up to Rs. 2,704-9-6. Certain large orders have recently been placed with the Proprietor of the Art Litho Press and it is hoped to be able to work the plant efficiently.

65. *IV. The Aryan Hosiery Factory.*—For this Institution, Government have provided a working capital of Rs. 5,000. The Balance Sheet of the Institution for the period ending June 1918 discloses a net profit of Rs. 241-12-9. The Factory has suffered considerably on account of the high prices of yarn and certain proposals for the better working of the factory are before the Government now.

66. *Development of Artware Industry.*—Certain proposals for the employment of master artisans with a view to furnishing new designs to suit modern tastes and which would readily be marketable were submitted to the Government as early as May 1917 but sanction was accorded in May 1918 in Government Order No 10770-2—I. & C. 102-16-17, dated 2nd May 1918 for employing 2 master artisans. But in the meanwhile a beginning had been made in a small way in the Workshops. The two industries that were taken up were Inlaid work and Sandalwood carving. For the period ending 30th June 1918 goods to the total value of Rs. 2,096-3-2 consisting of Rs. 1,532 worth of sandalwood work and Rs. 560 worth of inlaid work were made and sent to the Depot for sale and there were goods of the value of Rs. 2,633-4-4 in unfinished stage. While it can be said some progress has been made in the designing of new marketable varieties, progress in the getting of the artisan class trained in this work has to be achieved. In July 1918 Government sanctioned the employing of 2 more master artisans and of these one an Enamel-worker on metals has recently been employed.

67. *Arts and Crafts Depot.*—The Government sanctioned the continuance of the Depot for a period of one year from 1st July 1917 under the control of the Director of Industries. The stimulus given by the employment of master artisans and furnishing of new designs has resulted in an increased production in Inlaid goods, the value of goods of this class being nearly 50 per cent of the total value of the goods. In spite of the unfavourable market, due to the conditions of the European War, goods of a total value of Rs. 17,345-1-4, were sold during the year. The Balance Sheet as prepared by the Commercial Auditor is enclosed as statement. It will be observed that the Depot is doing very good work and if the Government grant is excluded its transactions show a net gain of Rs. 900-0-0. What is wanted to develop the working of the Depot is to find new markets or rather open agencies for sale of its wares in important centres like Bombay, Calcutta, and Delhi. This question will be taken up in the coming year.

68. *General.*—It has already been mentioned that considerable difficulty was experienced in procuring machinery and stores of all description and I am glad to be able to report that even under such unfavourable conditions the officers of the Department have been able to show on the whole good progress.

69. Mr. V. Ganesa Iyer was appointed as Superintendent of the Central Industrial Workshops and he has been able to manufacture satisfactorily the machinery referred to elsewhere in this report and has supervised the works and looked to the maintenance of accounts with great care.

70. Mr. Govinda Pillay was appointed as Deputy Superintendent of Workshops and is supervising the work in the machine shops. Mr. P. Krishna Row, Foreman in Tata Iron and Steel Company was appointed as Assistant Superintendent of Workshops and posted for the charge of foundry. He has increased the production in the foundry and the quality of the castings also has been improved.

71. Mr. N. Lakshminarasimhayya was appointed as Personal Assistant to the Director in December 1917 and was in addition in charge of the Metal Factory, Instrument Section, Sugar-cane installations and general supervision work.

72. Mr. S. G. Sastry was appointed as Industrial Chemist to the Department in April 1918. He took charge of the Soap Factory on 1st June 1918, and in addition has been investigating the possibilities of the manufacture of caustic soda, essential oils and expansion of soapworks.

73. Mr. R. Vyasa Row was employed in the investigation of kaolin deposits round Bangalore and the result of his work has been that very promising deposits have been located and a scheme for manufacture of porcelain is awaiting development.

74. Mr. R. Ananthasubramaniam was appointed special officer to organize the supply of Army blankets to the Indian Munitions Board and in addition looked after the management of the Aryan Hoisery Factory and the Art Litho Press.

75. Mr. K. Sanjeeva Row, Textile Assistant, in addition to the charge of the Weaving Factory visited several important weaving centres to study the economic condition of the weavers.

76. Mr. K. T. Kadaba, Superintendent of Industries was in charge of Shimoga and Kadur Districts and supervised the erection of District Workshops, oil mills at Chikmagalur and at Honnali.

77. Mr. G. S. Girimaji Row, Assistant Superintendent of Industries was in charge of Mysore and Hassan Districts and supervised the erection of rice mills at Yedatore, Krishnarajpete, Channarayapatna and Ganjam.

78. Mr. C. R. Rama Rao, Assistant Superintendent of Industries was in charge of Chitaldrug District and erected a suction gas plant.

I have the honor to be,

Sir,

Your most obedient servant,

V. RANGASWAMY IYENGAR,

Director.

CENTRAL INDUSTRIAL WORKSHOPS.

Capital Balance Sheet for 1917-18.

Liabilities	Amount	Total	Assets	Amount	Total
<i>Opening Balance.</i>	Rs. a. p.	Rs. a. p.	<i>Capital Accounts.</i>	Rs. a. p.	Rs. a. p.
Capital Accounts—					
Buildings	68,220 0 0		Buildings—Value on 1st July 1917 ...	68,220 0 0	
Machinery	87,952 0 0		Less Depreciation 8 per cent ...	2,046 9 7	
Furniture	1,762 0 0		Net	66,173 0 5	
Tools	3,000 0 0		Additions during the year ...	7,211 11 8	
Total ...	1,10,934 0 0				73,385 2 1
Revenue Account—			Machinery—Value on 1st July 1917 ...	87,952 0 0	
To Comptroller	48,989 18 6	1,58,878 13 6	Less Depreciation 4 per cent ...	1,518 1 8	
Treasury—			Net	36,433 14 9	
For transaction of the year ...			Additions during the year ...	34,216 6 10	70,650 5 7
Capital Accounts—			Furniture—Value on 1st July 1917 ...	1,762 0 0	
Machinery	23,458 0 5		Less Depreciation 4 per cent ...	70 7 8	
Buildings	7,211 11 8	80,669 12 1	Additions during the year ...	1,691 8 4	1,691 8 4
Total ...	80,669 12 1			Nil.	2,880 0 0
Revenue Accounts—			Tools—Value on 1st July 1917 ...	3,000 0 0	1,48,607 0 0
Amounts Drawn	71,557 15 0		Less Depreciation 4 per cent ...	120 0 0	
Less Remittances	50,230 2 2	70,680 7 3	Net	2,880 0 0	
Expenses—Salaries, etc. ...	18,682 14 4		Additions during the year ...	Nil	
<i>Liabilities.</i>			<i>Revenue Accounts.</i>		
Capital Accounts—			Stock in Trade—		
Sundry creditors for purchase of machinery ...	10,758 6 5		Stock—Materials on hand ...	12,858 4 7	
Revenue accounts—			Finished articles	8,050 0 0	
Wages—Labour	3,386 4 4				20,403 4 7
Piecework	3,272 13 0		Work orders completed jobs ...	35,250 7 1	
Total ...	6,659 1 4		In Progress	20,724 1 10	64,974 8 11
Raw Materials—C. I. Stores ...	32,678 3 3		Book Debts—		85,377 13 6
Other items—Electrical Dept, ...	1,987 10 10		Government Departments ...	60,922 15 0	
Water-Supply	4 8 0		Private parties	3,503 15 0	
Total ...	1,992 2 10				64,426 14 0
Establishment—Salaries ...	1,265 0 0	41,329 7 5	Advances	Nil.	Nil
Leave and Pensionable allowances ...	685 0 0		Balances	Nil.	Nil
Total ...	1,950 0 0	54,037 13 10			
Profit and Loss Accounts—			Total ...	.. ..	2,98,411 11 6
Net Profit	13,819 8 11	13,819 8 11			
Total ...	.....	2,98,411 11 6			

CENTRAL INDUSTRIAL WORKSHOPS.
Trading and Profit and Loss Accounts—1917-18.

			Rs.	a.	p.				Rs.	a.	p.
Balance	...	...	43,939	13	6	By Sundry Debtors	...	...	12,022	2	7
	Rs. a. p.					Sales	...	...	1,13,264	3	0
Wages Labour	...	...	17,234	5	9	Finished articles (Stock)	...	...	8,050	0	0
Piecework	...	...	22,854	2	2	Materials on hand	...	...	12,353	4	7
						Completed jobs	...	...	35,250	7	1
						Work in progress	...	...	29,724	1	10
Raw materials	...	...	40,088	7	11				2,10,664	3	1
Other Items—						By Trading Account for Gross Profit	...	...	43,936	15	2
Power and Lighting	...	...	2,646	12	1						
Freight	...	...	234	5	0						
Water-Supply	...	...	4	8	0						
			2,885	9	1						
Gross Profits	...	...	48,836	15	2						
									2,10,664	3	1
To Repairs and Renewals	...	...	10,629	5	5						
Establishment—											
Salaries	...	...	11,930	10	2						
Travelling allowance	...	...	381	6	8						
Leave and Pension Allowances	...	...	685	0	0						
			12,997	0	10						
Depreciation—											
Buildings	...	...	2,046	9	7						
Machinery	...	...	1,518	1	3						
Furniture	...	...	70	7	8						
Tools	...	...	120	0	0						
			3,755	2	6						
Interest	...	...	7,635	13	6						
Net Profits	...	...	13,819	8	11						
			48,836	15	2				48,836	15	2

STATEMENT No. I (B)—1917-18.

Balance sheet for Central Industrial Stores as at 30th June 1918.

Liabilities			Amount	Assets			Amount
			Rs. a. p.				Rs. a. p.
Capital	...	...	1,18,884	Stock	...	...	86,543
Creditors	...	...	10,011	Furniture	...	...	1,013
Outstanding Payments	...	...	713	Petty cash	...	...	16
Net Profit	...	...	3,045	Debtors	...	...	45,081
			1,32,654				1,32,654
			1 8				1 8

STATEMENT No. I (C) 1917-18.

Trading and Profit and Loss account of the Central Industrial Stores
for the half year ending 30th June 1918.

Liabilities			Amount	Assets			Amount
			Rs. a. p.				Rs. a. p.
Opening balance of stock	...	...	49,935	By sales	...	...	67,703
Purchase	...	...	98,349	Closing stock	...	...	86,543
Wages paid	...	...	401				
Cart hire	...	...	217				
Gross profit	...	...	5,342				
			1,54,246				1,54,246
			1 9				1 9
Freight	...	...	681	By gross profit	...	...	5,342
Coolies	...	...	72				
Sundry expenses	...	...	275				
Contingent	...	...	61				
Trade to ther expenses	...	...	1,205				
Net profit	...	...	3,045				
			5,342				5,342
			1 9				1 9

STATEMENT No. I (D) 1917-18.

Balance Sheet of Survey and Mathematical Instrument Section for the half year ending June 1918.

No.	Assets	Amount	No.	Liabilities	Amount
		Rs. a. p.			Rs. a. p.
1	Value of unfinished work orders as per booked outlay.	3,794 11 2	1	Expenditure on work orders	7,479 2 0
2	Cost of finished articles as per bills sent from time to time.	6,000 13 8	2	Depreciation on tools and plant at 20% per annum.	208 0 0
			8	Establishment, building and other charges not debited $\frac{2}{3}$ (1800).	
				Net profit	2,108 6 10
	Total	9,795 8 10		Total	9,795 8 10

STATEMENT No. I (E) 1917-18.

Balance sheet of Fine Artware Manufacturing Section for the half year ending 30th June 1918.

No.	Assets	Amount	No.	Liabilities	Amount
		Rs. a. p.			Rs. a. p.
1	Value of unfinished work orders as per booked outlay.	2,633 14 4	1	Expenditure on work orders	3,022 8 7
2	Cost of finished articles as per bills sent from time to time.	2,096 3 2	2	Depreciation on tools and plant at 20 per cent per mensem.	22 0 0
				Establishment, building and other charges not debited $\frac{1}{2}$ (1800)	
				Net profit	1,685 8 11
	Total	4,730 1 6		Total	4,730 1 6

STATEMENT No. II 1917-18.

Sugar Mills Account for the year 1917-18.

Name of Installation	Capital expenditure			Working expenditure		
	As per last year's report	Current year	Total	As per last year's report	Current year	Total
1	2	3	4	5	6	7
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Chiksagare	.....	.....	.....	1,776 15 7	1,183 11 11	2,960 11 6
Kundalepalli	.....	957 8 6	957 8 6	.....	891 14 1	891 14 1
Total	.....	957 8 6	957 8 6	1,776 15 7	2,075 12 0	3,852 9 7

Name of Installation.	Total of columns 4 and 7	Milling charges			Remarks
		As per last year's report	Current year	Total	
	8	9	10	11	12
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Chiksagare	2,960 11 6	1,285 5 4	1,106 13 4	2,392 2 8	
Kundalepalli	1,849 1 7	.....	652 15 8	652 15 8	
Total	4,809 13 1	1,285 5 4	1,759 13 0	3,045 2 4	

Metal Factory Account for 1917-18.

Capital expenditure			Revenue expenditure
Establishment	Machinery Tools and Plant	Other charges	
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Nil	20,338 13 4	Nil	Nil

Mineral Industries Account for 1917-18.

Salaries	Other charges	Total
Rs. a. p.	Rs. a. p.	Rs. a. p.
2,013 13 11	1,893 10 11	3,912 8 10

STATEMENT No. III, 1917-18.

Trading accounts of the Government Soap Factory from February 1918
to 30th June 1918.

No.	Particulars	Amount	No.	Particulars	Amount
		Rs. a. p.			Rs. a. p.
1	Raw materials purchased from February to 30th June 1918.	13,999 4 9	1	By sales of soap produced	19,789 13 0
2	Miscellaneous charges such as (a) Repairs and Renewals (b) Packing etc., (c) Wrapper and labels (d) Deal wood cases (e) other sundries.	1,653 0 2	2	By value of unfinished production on 30th June.	1,200 0 0
3	Pay of establishment (Superintendent, Mechanic, etc.)	2,655 0 0	3	Stock on hand on 30th June.	1,916 15 3
4	Labour ...	594 6 0			
5	Fuel ...	423 4 0			
6	Depreciation on plant, etc., approximately.	1,000 0 0			
		20,324 14 11			
	By profit ...	2,581 13 4			
	Total ...	22,906 12 3		Total ...	22,906 12 3

STATEMENT No. IV, 1917-18.

Profit and loss account of the Government Weaving Factory,
for the year ended 30th June 1918.

To	Rs. a. p.		Rs. a. p.
Trade expenses ...	396 11 9	Profits brought forward from the manufacturing account.	7,766 13 8
Establishment charges ...	1,264 3 3	Other Miscellaneous Receipts ...	1 1 0
Rent of the Factory ...	1,200 0 0	Dead Stock in hand on the 30th June 1918.	6,016 7 4
Dead stock in hand ...	5,792 1 0		
Purchases of Dead Stock ...	628 14 0		
Irrecoverable advances written off.	94 8 5		
Net profits ...	4,407 14 7		
Total ...	13,784 5 0	Total ...	13,874 5 0

STATEMENT No. IV(a), 1917-18.

Statement showing the Result of Demonstration and Experimental Works of the
Government Weaving Factory for the year ended 30th June 1918.

	Rs. a. p.		Rs. a. p.
Stock of looms and loom parts on 30th June 1917.	2,160 0 6	Sale of looms and loom parts ...	12,053 1 10
Purchases of looms and loom parts during the year.	11,162 8 0	Stock of loom parts in hand on 30th June 1918.	3,269 6 3
Miscellaneous expenses and rent ...	909 6 0	Net cost ...	12,039 1 4
Trade expenses ...	333 2 7		
Wages—			
Demonstration ...	499 6 7		
Experimental ...	961 1 1		
Training of weavers ...	702 1 7		
	2,162 9 3		
Establishment charges ...	6,664 9 9		
Supervision charges and rent ...	3,919 5 4		
Total ...	27,361 9 5	Total ...	27,361 9 5

STATEMENT No. IV(b), 1917-18.

Manufacturing Account of the Government Weaving Factory.

	Rs. a. p.		Rs. a. p.
Opening stock on 30th June 1917—		By sale of goods ...	36,555 6 4
Raw materials ...	3,660 3 4	Stock in hand on 30th June 1918—	
Finished goods ...	5,735 1 6	Raw materials ...	6,639 6 11
	9,395 4 10	Finished goods ...	7,133 8 9
Purchase of raw materials ...	24,082 1 9		13,822 15 8
Manufacturing wages ...	5,996 12 3		
Sizing, Bleaching, Dyeing charges ...	3,137 6 6		
Profits realized ...	7,766 12 8		
Total ...	50,378 6 0	Total ..	50,378 6 0

STATEMENT No. IV(c), 1917-18.

Balance sheet of Government Weaving Factory on the 30th June 1918.

Liabilities		Assets	
	Rs. a. p.		Rs. a. p.
Dues to creditors—		Dues from debtors—	
On account of raw materials.	3,213 9 0	On sales of cloth ...	5,329 10 3
Loom parts ...	1,339 9 0	On loom parts ...	3,117 9 5
Advances on orders.	258 15 9	Dues from I and C.	
Wages ...	679 8 10	Committee for half cost of s.ays ...	3,743 12 0
Salaries ...	513 15 5	Stock with Demons-trators ..	3,341 5 0
Supervision and rent.	437 0 0	On labour advances ..	409 2 10
	6,442 10 0		
Treasury account—		Cash in hand on 30 June 1918 ...	15,941 7 6
Drawn during the year ...	57,233 1 4	Stock in hand on 30th June 1918—	677 9 3
Remittances during the year ...	42,005 1 11	Raw materials ...	6,689 6 11
	15,256 15 5	Finished goods ...	7,133 8 9
Capital account—		Loom parts ...	3,269 6 8
As per balance sheet of 30th June 1917.	26,659 7 3	Dead stock ...	6,016 7 4
Net profits brought forward from profit and loss account.	4,407 14 7	Net cost of demonstration and experimental works for the current year.	23,108 18 3
			12,039 1 4
Total ...	51,766 15 3	Total ...	51,766 15

STATEMENT No. V, 1917-18.

Statement showing the assets and liabilities of the Button Factory for the year ending 30th June 1918.

No.	Assets	Rs. a. p.	Liabilities	Rs. a. p.
1	Raw materials—			
2	Coroso nut ...	106 2 0	1. Working expenses from June 1917 to 31st December 1917.	752 9 0
3	Bone ...	40 0 0		
4	Horn ...	80 0 0	2. Working expenses from January 1918 to 30th June 1918.	1,200 13 10
5	Horn hollows ...	17 8 0		
6	Bone prepared raw material	10 0 0		
7	Unfinished stock (as they are)—			
8	Nut buttons ...	820 0 0		
9	Bone ...	40 0 0		
10	Horn ...	228 0 0		
11	Finished stock—			
12	Nut buttons ...	201 0 0		
13	Bone buttons 1st quality ...	64 0 0		
14	Bone buttons 2nd quality ...	60 0 0		
15	Sale of buttons ...	25 0 0		
16	Lac dye ...	100 0 0		
	Total ...	1,791 10 0	Total ...	1,953 6 10

Rupees one thousand seven hundred and ninety one and annas ten only.

Rupees one thousand nine hundred and fifty-three annas six and pies ten only.

Net loss Rs. 161-12-10.

STATEMENT No. VI, 1917-18.

List of Installations pending on hand during year 1917-18.

No.	District	Taluk	Village	Name of the party	Description of plant	Approximate cost	Remarks
1	Hassan	Channarayapatna	Channarayapatna	Co-operative society	Rice and Flour Mill	Rs. 15,000 0 0	Loan.
2	Mysore	Krishnarajpete	Krishnarajpete	Messrs. Krishna Jois and others	Rice and Oil Mills	6,100 0 0	H. P.
3	Do	Mysore	Mysore City	Ramachandra Rao	Printing Press	3,000 0 0	H. P.
4	Kadur	Chikmagalur	Chikmagalur	Mr. B. N. Hanumanthappa	Seven B. H. P. Oil Engine	2,500 0 0	H. P.
5	Chitaldrug	Davangere	Davangere	Brahmappa Thavanappanavaru	Rice Mill	6,000 0 0	H. P.
6	Do	Holalkere	Do	Karapanna	Double roller gins	2,600 0 0	H. P.
7	Mysore	Mysore	Mysore City	A. N. Krishnappa	Rice and Oil Mills	4,000 0 0	H. P.
8	Do	Hunsur	Kirijji	K. V. Iyer	4" pump	700 0 0	H. P.
9	Do	Mysore	Mysore City	Thebbanna	2 Rotary Oil Mills	2,800 0 0	H. P.
10	Bangalore	Bangalore	Bangalore City	P. Subramachetty	15 H. P. Electric Motor	2,400 0 0	H. P.
11	Hassan	Arkalgud	Matigodu	Subramanya Sastry	Pumping plant	4,600 0 0	H. P.
12	Bangalore	Bangalore	Bangalore City	G. Subramanya Naidu	Rice Huller	5,000 0 0	H. P.
13	Do	Do	Do	Setti Puttiahchetty	Roller Machine	2,400 0 0	H. P.
14	Do	Do	Do	Mysore Economic union	Do	30,000 0 0	H. P.

STATEMENT No. VII, 1917-18.

List of Installations completed during the year 1917-18.

No.	District	Taluk	Village	Name of the party	Description of plant	Approximate cost	Remarks
1	Bangalore	Bangalore	Bangalore City	Mr. B. K. Garudachar	Anderson oil Expeller	Rs. 16,000	H. P.
2	Do	Do	Do	Do	Flour Mill	10,000	Own capital
3	Mysore	Yedatore	Saligrama	Chennappaiah	10 H. P. oil Engine and pump	3,800	H. P.
4	Do	Mysore	Holaloo	Jattinsappa	6 B H. P. oil Engine and pump	2,500	H. P.
5	Do	Seringapatam	Ganjam	Ananda Rice Mill	Rice Mill	25,000	Own capital.
6	Bangalore	Bangalore	Bangalore City	Mr. M. A. Tirunarayancharya	Electric Motor	1,600	H. P.
7	Do	Do	Do	K. N. Ramachandraiah	Flour Mill	450	H. P.
8	Do	Do	Do	P. M. Pushpantha Moodaliar	10 H. P. Electric Motor	978	H. P.
9	Do	Do	Do	Kodandapani Naidu	Stamford Rice Mill	345	H. P.
10	Mysore	Mysore	Mysore City	M. K. Ebrahim	10 H. P. Electric Motor	1,650+3,000	Own capital and H. P.
11	Bangalore	Bangalore	Bangalore City	V. Nagaraja Rao	10 H. P. Electric Motor and Rotary oil Mills.	2,400	H. P.
12	Do	Do	Do	V. K. Shama Rao	11" Turning and Screw cutting, lathe.	1,150	H. P.
13	Do	Do	Do	D. M. Hanumanthappa	12" Lathe for cutting	1,250	H. P.
14	Do	Do	Do	T. K. Chickmuniappa	10 H. P. E. Motor and stamford flour mill.	2,400	H. P.
15	Kadur	Narasimharajapura	Narasimharajapura	H. V. Ramachandra Rao	Bamford grinding mill	1,800	H. P.
16	Shimoga	Honnali	Doddahalappa	Do	Flour mill	500	H. P.
17	Mysore	Mysore	Mysore City	S. Rama Rao	Electric Motor and Disintegrator.	2,400	H. P.
18	Chitaldrug	Davangere	Davangere	Brahmappa Thavanappanavaru	Anderson oil Expeller	24,000	H. P.
19	Tomkur	Tomkur	Tomkur	K. Ranga Iyengar	Printing Press	5,000	Loan
20	Chitaldrug	Holalkere	Muttugalur	Patel Gurusiddappa	10½ H. P. Gas Engine	4,000	H. P.
21	Bangalore	Bangalore	Bangalore City	K. Shama Rao	4 H. P. Electric Motor	1,400	H. P.
22	Do	Do	Do	G. Nagesa Rao	1 H. P. Electric Motor	300	H. P.
23	Do	Do	Do	K. Subbiah	25 H. P. Gas Engine	6,500	H. P.
24	Chitaldrug	Davangere	Davangere	Bandade Ballappa	14 H. P. Engine and pump	10,000	Loan
25	Bangalore	Bangalore	Bangalore City	V. K. Shama Rao	4 H. P. Electric Motor	1,600	H. P.
26	Mysore	Mysore	Mysore City	H. Venkatakrishna Sastri	Flour mill	3,800	H. P.
27	Bangalore	Bangalore	Bangalore City	H. Sreenivasa Iyer	3 H. P. Electric Motor	850	H. P.

STATEMENT No. VIII, 1917.

Statement showing demand, collection and Balance under Taccavi Loans for the quarter ended 30th June 1918.

Month	Demand														
	Arrears		Current for the month		Total										
	Principal	Interest	Principal	Interest											
1	2	3	4	5	6										
April 1918	Rs. 28,320	a. 5	p. 3	Rs. 4,568	a. 9	p. 9	Rs. 1,247	a. 12	p. 7	Rs. 45	a. 1	p. 0	Rs. 34,181	a. 13	p. 0
May "	27,793	2	3	4,538	7	0	1,198	11	0	262	15	1	33,798	8	4
June "	27,761	13	3	4,549	12	8	5,918	8	4	968	5	4	39,198	7	7
Total	.....			.....			8,364	15	11	1,276	5	5	.....	

Month	Collection														
	Arrears		Current for the month		Total										
	Principal	Interest	Principal	Interest											
7	8	9	10	11											
April 1918	Rs. 925	a. 0	p. 0	Rs. 38	a. 4	p. 6	Rs. 850	a. 0	p. 0	Rs. 36	a. 15	p. 2	Rs. 1,850	a. 3	p. 9
May "	644	4	7	133	9	10	585	11	5	117	15	7	1,481	9	5
June "	4,380	5	8	804	6	9	3,781	12	11	520	6	8	9,487	0	0
Total	.....			.....			.....			...			12,818	13	2

Month	Balance														
	Arrears		Current for the month		Total										
	Principal	Interest	Principal	Interest											
12	13	14	15	16											
April 1918	Rs. 27,395	a. 5	p. 8	Rs. 4,530	a. 5	p. 3	Rs. 397	a. 12	p. 7	Rs. 8	a. 1	p. 9	Rs. 32,331	a. 9	p. 3
May "	27,148	13	8	4,404	13	2	612	15	7	144	15	6	32,311	9	11
June "	23,381	7	7	3,745	5	11	2,136	11	5	447	14	8	29,711	7	7
Total	.....			.....			.....			.....			.....

				Rs.	a.	p.
Balance on 1st April 1918	...	...	..	32,888	15	5
Demand for the quarter	...	...	...	9,641	5	4
			Total	42,530	4	9
Collection during the quarter...	...	...	...	12,818	13	2
			Balance on 1st July 1918	29,711	7	7

STATEMENT No. IX, 1917-18.

IV.

No.	Month	Sabbanhally		Chiksaggere		Hudi		Total	
		Hours	Maunds	Hours	Maunds	Hours	Maunds	Hours	Maunds
1	December 1917	154½	1,260	...	...	...	...	154½	1,260
2	January 1918	150	1,410	...	...	...	...	150	1,410
3	February "	61	522½	...	...	...	...	61	522½
4	March "	...	...	...	...	412½	1,557	412½	1,557
5	April "	...	...	87½	533	304	1,822	391½	2,355
6	May "	...	...	254½	1,600	144	980	398½	2,580
7	June "	...	...	118½	816	34½	235	152½	1,051
	Total	365½	3,192½	460	2,949	895	4,594	1,720½	10,735½

STATEMENT No. X.

Statement of recovery for 1917-18.

Particulars.	Amount.		
	Rs.	a.	p.
Loans	8,343	4	5
Hire purchase	32,998	14	4
Interest	4,344	1	1
Total	45,686	3	10

Particulars	1913-14	1914-15	1915-16	1916-17	1917-18	Total
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Net amount drawn from the Treasury.	55,528 12 0	76,912 8 0	83,352 8 0	42,404 12 0	1,85,520 8 0	4,43,724 0 0
Amount recovered towards Principal.	.....	11,273 11 3	27,671 14 9	35,064 5 10	41,342 2 9	1,15,352 2 7
Interest ...	.....	2,008 0 5	3,200 4 6	3,552 11 8	4,344 1 1	13,105 1 8

STATEMENT No. XI, 1917-18.

Statement of loans applied for, sanctioned and otherwise disposed of during 1917-18.

Particulars	Number of applications			Amount		
	Hire Purchase	Loan	Total	Hire purchase	Loan	Total
Applications pending at the beginning of 1917-18	19	11	30	1,04,640	1,47,500	2,52,140
Received during 1917-18	50	32	82	1,45,080	2,14,900	3,59,960
Difference between amount applied for and sanctioned.	...	...	...	.....	-7,500	-7,500
Total number of applications for disposal for 1917-18.	69	43	112	2,49,700	3,62,400	6,12,100
Applications sanctioned by the Director	17	4	21	25,250	7,500	32,750
Applications sanctioned by Chairman I & C Committee and Government.	13	11	24	70,400	1,67,003	2,37,403
Pending sanction and enquiry	8	12	20	27,500	93,500	1,26,000
Rejected or withdrawn	31	16	47	1,26,550	89,397	2,15,947
Total	69	43	112	2,49,700	3,62,400	6,12,100
Applications sanctioned but subsequently withdrawn and cancelled.	2	...	3	8,600	.....	8,600
Total applications sanctioned during 1917-18	29	14	43	17,050	1,74,503	2,61,553

**REPORT OF THE COMMERCIAL SECTION
FOR THE YEAR 1917-18.**

1. The formation of a separate Section in the office of the Director of Industries and Commerce to deal entirely with questions relating to commercial development in the State, the collection and publication of statistics and the maintenance of an up-to-date Bureau of Information was sanctioned in Government Order No. 1090-140—I. & C. 48-17-1, dated the 1st August 1917.

2. I assumed charge of the office of the Deputy Director of Commerce on the 1st of October 1917 as per Government Order No. 2680-730—I. & C. 48-17-3, dated the 10th September 1917, and the work relating to the Commerce Section was carried on separately from 5th October 1917.

After my assuming charge of the office, notes on "Commercial Section," "Statistics" and "Programme of Commercial Section" were submitted to Government. Orders of Government prescribing the programme of work for the Commercial Section were passed in their Orders No. 8413-63—I. & C. 48-17-14, dated the 22nd February 1918 and No. 10993—I. & C. 48-17-25, dated the 8th May 1918.

3. The compilation of the Review of the Rail-borne Statistics of the State for 1916-17 was taken on hand immediately on the formation of the Section and the Review of trade for the year 1916-17 was published early in March. This review attempts a comprehensive survey of the foreign trade of Mysore based on the statistics of the Rail-borne trade for the past four years. Several new features, such as, the proportion of food stuffs, raw materials and manufactured products in the total trade, a Note on the existing financial facilities to trade and a survey of the progress of the Bank of Mysore are included in the Review.

4. The appointment of Commercial Probationers was sanctioned by Government in November 1917. Three of the Probationers reported themselves for duty in the month of December 1917 and one in March 1918. Till the orders of Government prescribing the programme were received (in February 1918) two of them were asked to check the accounts of the Art Litho Press and the Aryan Hosiery Factory. After the receipt of the Government Order one (Mr. Anantharam) was entrusted with the work of the Bureau, and placed in charge of the Library which was transferred to this office from that of the Industries and Commerce Committee, in May last.

Another Probationer (Mr. Josyer) was placed in charge of Statistics directed to be collected and published by the Department. The remaining two Messrs. Naronha and Rama Iyengar, were placed in charge of the work relating to the control of Tanning Bark, Fuel and Kerosene oil, the initial measures regarding the control of which devolved on the Commercial Section before the creation of the Department of Civil Supplies.

5. *Control of Tanning Bark.*—Under the Defence of India Regulation, the Director of Industries and Commerce was authorised to exercise certain powers with a view to the prohibition of skin tanning in the State and the matter was subsequently transferred to the Commercial Section by Government. An Inspector, a Sub-Inspector and a staff of twelve Constables have been sanctioned by Government for the establishment of an Ookad at Jeevanhalli to the north of the Civil and Military Station, the main tanning centre in the State, in order to prevent skin tanning by the tanners.

The control of the price of bark was taken up under the orders of Government in order that the manufacture of hides may be rendered possible at the prices at which they were purchased for Army use by the Government of India. I was deputed to Madras in the middle of February to attend a Conference of Tanning Bark Merchants summoned by the Government of Madras, and a similar meeting was held at Bangalore on the 22nd February 1918, with the Director of Industries in the chair. All the subsequent measures relating to the control of the price of bark and its distribution to tanners have been taken in the Commercial Section.

6. *Control of Kerosene oil.*—Government in their letter No. 7845, dated the 5th February 1918, directed me to be present at a meeting held at the Mysore Chamber of Commerce on the 6th February 1918 for considering the question of the high prices of kerosene oil. After the submission of my report, I was called upon to send in detailed proposals as to the effective way of bringing it under control. Since then, arrangements regarding the control of kerosene oil elaborated with the co-operation of the Mineral Oil Companies doing business in the State, have been carried on by the Commercial Section which continued to be in charge of the work after the appointment of a Director of Civil Supplies.

7. *Control of Fuel.*—As suggested by the President of the Standing Committee of the Economic Conference at their meeting held on the 23rd February 1918, I was appointed Convener of a Special Committee appointed to consider the question of fuel supply to the Cities of Bangalore and Mysore. The price of fuel in Bangalore had risen to an abnormal extent and remedial measures by Government were urgently called for. A meeting of the Special Committee was held on the 16th March 1918 and according to the decision arrived at, at that meeting—the work was recommended to be entrusted to Mr. Bullappa who had offered to relieve the distress if the Forest coupes in the Bangalore District proposed to be leased during 1917-18 were given to him at an upset price. The retail vendors of fuel were in favour of the idea of obtaining their supplies through Mr. Bullappa and Government were accordingly pleased to sanction Mr. Bullappa's application.

8. It was soon found however that the supply of fuel to the City was totally inadequate and a mass meeting of the Citizens of Bangalore was convened at Purniah's Choultry to express their dissatisfaction at the arrangements approved by Government.

In order to allay immediate inconvenience, I obtained a loan of fuel from the Sandalwood Oil Factory and effected a purchase of 63 tons and 6 cwts of casuarina fuel from funds kindly placed at my disposal by the Bank of Mysore. In order to prevent Mr. Bullappa from diverting to other uses the fuel sanctioned to him for distribution to the public in Bangalore, a Probationer Mr. Ramaiyengar was stationed at Closepet, the main source of supply, to see that the Government fuel was sent into Bangalore City.

9. Government have since cancelled the contract granted to Mr. Bullappa and the Forest Department have made arrangements to deliver fuel at Bangalore. The fuel is distributed among 46 retail vendors at Rs. 7-10-0 per ton and also sold to the public at a Central Depot in lots of half to one ton each.

10. *Collection and Publication of Statistics.*—As has already been mentioned, the Review of the Rail-borne Traffic of the State for 1916-17 as well as a Bulletin on "Wholesale Prices in Bangalore for 1916-17" were published. The latter gives an idea of the course of prices of certain principal commodities (41 in number) since July 1916. Information regarding the prices of principal commodities since July 1914 has been collected and a separate bulletin giving a history of the prices during the war will be published shortly.

11. A weekly market report of the prices in Bangalore, Mysore and Davan-gere is compiled in the Section and published in the Gazette.

In addition to the quarterly report of the rail-borne trade of the State published in the Gazette, a weekly return of the traffic in principal commodities is being obligingly furnished by the Railway Authorities free of cost. The return is tabulated in the Section and a statement of the traffic in Foodstuffs is submitted weekly to Government.

12. In consequence of the fact that the quarterly return of the Foreign rail-borne trade of the State did not furnish particulars of the places of origin of the imports obtained into the State, or that of the destination of export sent outside the State, a recommendation was submitted to Government with a view to obtain these particulars from the Railway. This recommendation was sanctioned and the Railway Company have agreed to furnish the information required on receiving an increased grant of Rs. 75 per month towards their expenses. The grant has been sanctioned by Government and the returns will be obtained from 1st July 1918.

13. *Establishment of a Bureau of Commercial Information.*—The Library attached to the Industries and Commerce Committee was transferred to this

Section in May last and all the books were rearranged and renumbered. Sanction of Government for the grant of Rs. 1,500 for the purchase of additional books and a grant of Rs. 500 towards annual subscription to commercial and economic journals has been applied for.

The reports of the Commercial Correspondents at Madras and Bombay are scrutinised in the Bureau and inquiries from merchants answered. Mr. K. H. Ramaiya, who is in immediate charge of the Bureau has toured in Mysore, Shimoga, Chitaldrug and Tumkur Districts and has lectured on the advantages of commercial combination and Joint-Stock Enterprise. He is also engaged in the preparation of Kanarese Bulletins on Trade and Commerce. A Kanarese translation of the Review of Trade for 1916-17 has been published.

14. The circumstances of the present situation, the restriction in financial and other facilities to trade owing to the increasing strain imposed by the war are not favourable for any extended work on the part of the Bureau. It is believed that the real work of the Bureau will commence on the restoration of normal conditions after the conclusion of the war.

15. *Employment Registry.*—Printed circulars were issued to all employers of technical men in the Mysore State and advertisements were published in the Gazette and local Newspapers for the information of the public. Thirteen applications have been received from Commercial Firms. Of these requisitions of four have been complied with and efforts are being made to make the work a success. It is impossible to judge how far the scheme of establishing a medium of communication between employers and employed is a success until normal conditions are restored.

16. *Commercial Museum.*—Printed circular letters are being issued to merchants and manufacturers in Mysore to send exhibits to the Commercial Museum to be established at Mysore. The Commercial Correspondents at Madras and Bombay have also been requested to furnish the names of people there, who may be willing to send exhibits. A building has been rented at Mysore for the location of the Museum and proposals for the appointment of a Technical Superintendent have just been sanctioned. The work of organising the Museum will be pushed on. A Commercial Directory of the State will also be published under the auspices of the Museum during the course of the current year.

17. *Joint-Stock Companies.*—I assumed charge of the office of the Registrar, Joint-Stock Companies, on the 1st February 1918. The new Companies Regulation was brought into force on 1st July 1918. The Head Clerk of the office was deputed to Madras to take notes of the office procedure followed in the Registrar's Office at Madras, and I stayed at Bombay for a couple of days on my return from Nagpur in August last to study the working of the Regulation in Bombay. The subsidiary measures for working the new Regulation and proposals for an increase in establishment necessitated by the increased responsibilities imposed by the new regulation have been submitted to Government.

18. *Cotton Mills at Mysore and Davangere.*—Proposals for the establishment of Cotton Mills at Mysore and Davangere were considered by the local syndicates organised for the purpose at the two places. The question of obtaining a sufficient water-supply at Davangere to warrant the erection of a mill at the place was referred to the Public Works Department. The report of the Department, which has since been received is not very hopeful. The Mysore Syndicate has entered into an arrangement with Messrs. Narottam Morarji Gokuldas and Company for the erection of a Mill at Mysore and their proposals are before Government.

19. *Land Mortgage Bank.*—The entire question of Agricultural finance was considered by a Sub-Committee of the Agricultural Committee on which I was appointed as a member. Notes were furnished to the Sub-Committee regarding the establishment of a Land Mortgage Bank in the State. The Sub-Committee were unanimously of opinion that a Land Mortgage Bank was necessary for giving long term loans and the recommendations of the Sub-Committee, endorsed by the Agricultural Committee, were discussed and passed at the last Session of the Mysore Economic Conference.

C. RANGANATHA RAO SAHIB,
Deputy Director of Commerce.