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[Despatch Abstract.]

School of Arts.

Reviewing the report on the working of the — during 1902-1903.

BACK PAPERS.

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Government {1903} of Madras.

EDUCATIONAL.

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ORIGINAL

G.O., No. 396, 22nd August 1903.

AUGUST.

School of Arts.

Reviewing the report on the working of the — during 1902–1903.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

Read—the following paper:—

From the Hon'ble Mr. G. H. STUART, M.A., Director of Public Instruction, to the Secretary to Government, Educational department, dated 27th July 1903, C. No. 5416.

I have the honour to submit, for the information of Government, a copy of my Proceedings, Dis. No. 4527, dated 22nd July 1903, reviewing the report on the working of the School of Arts, Madras, during 1902–1903.

Enclosure.

Proceedings of the Director of Public Instruction, Dis. No. 4527, dated 22nd July 1903.

Read the following letter from A. CHATTERTON, Esq., Officer in charge, School of Arts, Madras, to the Director of Public Instruction, dated 20th May 1903, No. 640:—

I have the honour to submit the annual report of the School of Arts for the official year 1902–03. In accordance with G.O., No. 390, Educational, dated 8th July 1902, the report has been made as brief as possible, and all tabular statements of no importance, or which cannot be accurately verified, have been omitted.

2. I was in charge of the school during the year, but I was absent from Madras for 32 days on account of work connected with my duties as Inspector of Technical Schools and for 46 days I was away at Delhi in charge of the school exhibits in the Indian Art Exhibition. The services of the Industrial Assistant Mr. G. E. Brand were placed at the disposal of the Punjab Government with effect from the 25th April 1902 and in his place two passed students of the Engineer Class of the College of Engineering were appointed on a salary of Rs. 150 per mensem each. M.R.Ry. M. Velayudha Asari, the Assistant Superintendent, availed himself of three months' privilege leave from the 11th March 1903 and M.R.Ry. T. G. Krishnaswami Pillai, Art Instructor of the Kumbakonam College, was appointed to act for him.

3. *Drawing Classes.*—There were 316 pupils on the rolls of the school on the 31st March as compared with 321 at the same date in the previous year. The average daily attendance for the two years was 75 per cent. All the pupils pay fees according to the sanctioned scale, but 107 are also apprentices in the various industrial departments and receive stipends. The total amount received on account of fees was Rs. 4,179–2–0 as against Rs. 2,146–3–6 in the previous year. Tables I, II, III and IV in the appendix give detailed information regarding the strength of the various classes, the educational attainments of the pupils and the classes of the community to which they belong. From Table II it will be seen that there was a considerable increase in the number of paid apprentices and a proportionate decrease in the number of unpaid apprentices. The expenditure on stipends rose from Rs. 3,014–13–2 in the previous year to Rs. 4,387–0–9 and it may be expected to increase in future years as the apprentices increase in proficiency. Compared with mufassal schools the stipends paid to apprentices in Madras are much lower and a fair proportion of the money paid to them is recovered by the sale-proceeds of the work they do. It may be assumed that the majority of the apprentices now in the school are learning their trade with a view to following it in after-life, as their instruction in drawing is confined to two hours a day and they are not allowed, as was formerly the case, to neglect their industrial work in order to go up for drawing examinations which would qualify them to become drawing masters.

4. *General Education Classes.*—These classes were attended by only 76, out of 135, apprentices so that it is evident they are not much appreciated, and I think it will be desirable to abolish them when the school is finally reorganized and to insist that every apprentice shall possess certain minimum educational qualifications before he is enrolled as an apprentice in the school.

5. In table V in the appendix the results of the various Government Technical examinations held in November and December 1902 are compared with those of the previous year. From this statement it will be seen that there is a considerable decrease in the number of candidates appearing for the various drawing examinations and a very large increase in the number of candidates appearing for the industrial examinations. This result is, I think, fairly satisfactory as indicating that the apprentices are now devoting their time to the acquisition of a knowledge of their trade and have given up, to a large extent, the idea of ultimately becoming drawing-masters. This is partly due to the fact that there are very few vacancies for drawing-masters as all the appointments under the Educational Department have been filled and new classes are not often created. For artizans trained in the School of Arts there has lately sprung up a considerable demand; and at the present time I have nearly a dozen applications for maistries, and I find it extremely difficult to send out thoroughly qualified men. An apprentice who has passed the advanced examination of his trade can easily get employment on good wages; but the prospects of employment for pupils in the art classes are not encouraging, and, unless new openings can be found for them the number of art students in the school is likely to continue to decrease.

6. A register of all the students who have left the school is maintained, and, as far as possible, a record is kept of their work. During the year under review 14 students completed their course of instruction, of whom only two obtained drawing-masterships on Rs. 15 a month and the majority continued in the school workshops, working at their trade for daily wages. These passed apprentices now occupy in the workshops of the school positions analogous to what is known as "Improvers" in English workshops, and in course of time as they get increased experience, they will become full-time workmen and will get employment as maistries in other workshops or as instructors in other schools.

The statements of accounts for the financial year are given in Tables VI, VII, VIII, IX and X in the appendix. From these statements it will be seen that the cost of the art department was Rs. 19,523–11–3, of the carpentry department, Rs. 4,432–8–3, of the miscellaneous department, Rs. 3,521–4–2, and that of the weaving department Rs. 6,513–7–4, whilst the Aluminium department made a nett profit of Rs. 2,979–9–7 making the total cost of the school for the year Rs. 31,011–5–5, which is almost exactly the average annual expenditure on the School of Arts during the past twelve years, viz, Rs. 31,186–2–9. The accounts here shown, however, include the whole of the expenditure incurred on the Delhi Darbar Exhibition for which a special grant of Rs. 25,000 was made.

In Table XI in the appendix details of the sales and receipts in the various departments are given, showing that the total sales increased from Rs. 24,556–7–3 in 1901–02 to Rs. 40,561–14–3 in 1902–03. The large outstandings at the end of the year are almost entirely due to the sale proceeds which were realized at Delhi not having been remitted till after the close of the year by the exhibition authorities.

7. In connection with the Delhi Darbar it was decided to hold an exhibition of Indian art industries and Government appointed a special committee consisting of the Hon'ble Mr. J. N. Atkinson as President and Mr. Edgar Thurston and myself as members to supervise the preparation of a representative exhibition of the art industries of the school. A sum of Rs. 25,000 was placed at the disposal of the committee for the purpose. It was found impracticable to keep separate accounts of the expenditure on this exhibition, and the sum allotted was accordingly treated as a special grant and divided between the two departments of the school concerned in the production of the art exhibits. The exhibition authorities have not yet furnished us with a final statement of the sales account but the following statement represents the results of the exhibition as far as can be ascertained at the present time:—

Delhi Darbar Exhibition accounts.

	Rs.	A.	P.
Goods sold	21,778	5	8
Goods returned	3,065	5	4
Goods not accounted for	1,152	0	0
Total ...	25,995	11	0
Value of goods sent to Delhi	25,995	11	0

From this it will be seen that out of Rs. 26,000 worth of goods, Rs. 23,000 worth were sold and remittances on account have been made to the extent of Rs. 20,626-12-10. This is, in itself, a good enough result, but nothing else has come from the exhibition. Of all the enquiries made at the exhibition, only one has resulted in an order and it has in no way produced a demand for the school productions. This, I am inclined to think, is largely due to the lines on which the exhibition was run. The space available for the display of such exhibits as were sent from the School of Arts was totally insufficient and they were scattered all over the exhibition building, so that it was not possible to show, at a single glance, the productive capabilities of the school. Moreover, all sales were conducted by the exhibition staff and individual exhibitors had no opportunity of doing business with purchasers direct. The exhibition doubtless achieved the objects with which it was held, but, if any commercial development of these art industries is to take place, I think it will be necessary to hold an exhibition either in Bombay or Calcutta or, possibly better still, in London, on the usual commercial lines. So far as the School of Arts is concerned, the exhibition resulted in a considerable sale of the school productions and I have no doubt that, if it were possible to arrange for the school to exhibit representative collections of South Indian Art work at such exhibitions as those which will be held in the immediate future at Johannesburg and St. Louis, it would result in a permanent demand for our art productions and would lead to a very considerable expansion in the trade. In other countries this would undoubtedly be left to private enterprise, but in India the prospects of profit are not enough to attract private firms and if it is considered desirable to re-establish Indian Art industries on their old footing and adapt them to the requirements of modern life, there is not the least doubt that it will have to be done by Government, and that Government will have to look for a return on its expenditure to the indirect advantages which would result from a successful effort in this direction. I should have liked to have submitted proposals, for the consideration of Government, based on these lines, but I felt that it was not worth while doing so till the Government of India have indicated the general policy which they wish to have pursued in matters of this kind.

The Judging Committee of the Exhibition of Indian Art Manufactures at Delhi awarded 19 gold medals, 83 silver medals, 115 bronze medals and 110 certificates of commendation; of these 2 gold medals, 13 silver medals, 21 bronze medals and 13 certificates were awarded to the Madras Presidency including Travancore and Mysore. For the exhibits of the School of Arts, 3 silver medals, 2 bronze medals and two certificates of commendation were awarded. In this connection I think it is not unfair to say that the school was placed at a disadvantage through the inadequate space available for its exhibits.

8. *Industrial Departments*—(*a*) *Aluminium Department.*—During the year the sales in this department amounted to Rs. 1,89,979–12–7 and the expenditure to Rs. 2,24,001–0–8. The expenditure on new machinery amounted to Rs. 20,244–8–9, but owing to the fact that it was not delivered till last October and to my absence at Delhi during the greater part of December and January, it was not brought into full operation till the beginning of February and as it takes a considerable time to find a market for a new class of goods it is only now that we are beginning to reap the benefit of this outlay. Towards the end of the year we were able to secure a reduction in the price of raw metal, and this, combined with the diminished cost of manufacture, has necessitated a careful revaluation of all the stock on hand, with the result that we have had to write off fully Rs. 10,000 to arrive at the present market

value of our stock. Our efforts to develop native business by the employment of travelling agents and by the opening up of new agencies in various parts of the Presidency have entailed considerable expenditure which will be recovered when the business grows larger. To these two causes I attribute the comparatively small profit made by the department during the year; but as our accounts now correctly represent the market value of our stock and as we are doing a fairly good trade among natives, the work of the present year ought to be of a very profitable character.

With the exception of small imports into Bombay, the supply of metal to India is entirely controlled by the School of Arts and great progress has been made during the past year in the sales of raw metal to other manufacturers. The weight of aluminium used in the workshops was 44,843 lb., and 51,533 lb. was sold to other manufacturers. This is a very satisfactory result as it shows that the industry is spreading throughout the country and that it is now possible to leave its further development to private enterprise with a fair prospect of success. During the year the character of the business done by the School of Arts has very materially changed. There was some decrease in the value of military orders due to the fact that they have been placed more extensively with the Indian Aluminium Company, and there was also a decrease in the sales of articles suited to Europeans, owing to the same company having mainly devoted their attention to this part of the business. As I consider it undesirable on the part of a Government institution to make any effort to retain this business, the Aluminium department has therefore been mainly engaged in efforts to encourage the sale of aluminium among natives and in this direction we have had to compete with imported enamelled ironware and, to some extent, with imported german silver. On the whole, the results have been very encouraging and I think there is not the least doubt that aluminium has permanently obtained a footing in the domestic arrangement of native households. A good deal of experience has been gathered during the period the department has been in operation, and we are able now to say for what purposes aluminium can be advantageously employed, and by restricting ourselves to the manufacture of only such articles as, we know, will prove satisfactory, we are gradually establishing the metal in the confidence of the native public.

The machinery received from England included a drawing press, a cutting-out-press, a milling machine and some spinning lathes, and it has been erected in the space left vacant on the abolition of the Pottery department. The new workshop is well equipped with modern metal-working machinery and within the range of its production we are able to manufacture goods at probably as low a cost as anywhere in the world. The total net expenditure by Government on the Aluminium department now amounts to Rs. 1,70,228–0–5 and this sum, together with the accumulated profits of working during the past five years, provides sufficient capital for the future working of the industry and it will now be possible to carry on the department efficiently and provide that in the future the receipts shall exceed the expenditure.

(*b*) *Wood-working Department.*—Apart from the Delhi Exhibition there was an increase in the amount of work turned out in this department as compared with previous years. Good progress has been made in the preparation of illustrations for the Catalogue of Indian art work and it has been arranged with Mr. Edgar Thurston, who has under preparation a monograph on South Indian wood carving, that the same should be suitable, when illustrated at the expense of the School of Arts, for the letter-press of the catalogue.

(*c*) *Carpet-weaving Department.*—In this department the sales increased from Rs. 1,181–4–0 in the previous year to Rs. 3,135–8–0, which is about as much work as could possibly be turned out with the limited number of looms available. A very considerable reduction in the cost of manufacture was effected during the year but, owing to the high wages which have to be paid to carpet weavers in Madras, it has not yet been found possible to turn out work so cheaply as in Ellore. The question of transferring the whole business to that town is now in abeyance but it has not been lost sight of, and proposals regarding the future of the industry will be made as soon as the Government of India have passed orders regarding industrial education.

(*d*) The only other department of the school on which it is necessary to make any remarks is the experimental weaving shed which has been established on the Mount Road. From the accounts it will be seen that the net cost to Government was Rs. 6,513-7-4. The following statement shows the number of yards of cloth of each description woven during the year:—

	Yards.
Madras handkerchiefs	11,774
Grey salampore	1,598
Soosee	699
Angavastrams	151
Podava (women's cloth)	17

Under the orders of Government the work of this department has been restricted to the minimum possible, consistent with carrying on experiments for the improvement of hand-weaving. It has been definitely ascertained that the fly-shuttle loom can be used with advantage by native weavers and a number of minor improvements in its construction have been effected, which tend to increase the facilities with which work can be done. There is no doubt that the use of fly-shuttle looms is gradually spreading and this department may fairly claim credit for much of the advance that has been made. It has also been definitely ascertained that, if any further improvement is to be effected in hand-weaving processes, it lies entirely in the direction of improving the methods of preparing the warp and of sizing. The native system of sizing and warping has been given up in favour of hank-sizing with, I think, some slight advantage in the cost of producing warps. Full development of work in this direction has been delayed as Government decided that no expensive purchase of machinery for experiments should be made till the Government of India had decided what was to be done with regard to this industry.

(*e*) *Pottery Department.*—Early in the year the Pottery department was finally closed and the large kiln and machinery for the grinding of clay dismantled. The greater part of the stock has been sold and the balance still on hand is gradually being disposed of.

9. *Library and Museum.*—During the year 48 new books were added to the library at a cost of Rs. 500. The number of glass show-cases in the museum has been largely increased and better arrangements have been made to display articles manufactured in the school. As a show-room the museum serves a very useful purpose and the sales effected therein average now about Rs. 1,200 a month. In the old Superintendent's quarters, which are now used as offices, two small rooms have been decorated by the apprentices in the Painting department so that they can be used as show-rooms for the display of furniture which cannot be conveniently exhibited in the museum. The stock of art furniture is still very small and it will be desirable to increase it as experience continues to support the idea that there would be a great many more purchasers of the products of the Indian Art industries if they could be seen before purchase and obtained without any delay. In this connection it is satisfactory to record that the Committee of the Victoria Jubilee Technical Institute have decided, with the approval of Government, to build a Memorial hall in the compound of the Government Museum to serve as a permanent exhibition of Madras Art Industries.

10. *Aermotor.*—The experiments to determine the value of aermotors for irrigation purposes, which were started last year, have been brought to a conclusion, and I have submitted a report on the same to the Board of Revenue. The conclusion I have arrived at is distinctly favourable to the employment of wind engines in localities where the circumstances are suitable.

11. *Liquid Fuel.*—There are two oil engines employed in driving the machinery in the workshops and till quite recently they have been worked with kerosine-oil. It however occurred to me that it might be possible to use liquid fuel, and an experiment was first made on the oil engine in the Engineering College by Mr. James. The result was distinctly favourable and we are now using liquid fuel to drive these engines instead of kerosine-oil. I find that 8 gallons of liquid fuel costing As. 3 a gallon will do as much work as 9 gallons of kerosine-oil costing As. 7 a gallon. The cost of running the engines has therefore decreased in the ratio of 63 to 24 and the saving in the School of Arts workshops amounts to about Rs. 80 a month. There are a considerable number of these engines running in India, and as these results have attracted considerable attention among the users of oil engines, when they are fully known and made use of, the total saving effected by the use of liquid fuel instead of kerosine-oil will amount to many thousand rupees a month. This important reduction in the cost of generating power by oil engines is likely to prove of great importance in the development of schemes for irrigating land by water pumped from wells or river channels.

12. *General Remarks.*—During the year under review no material changes have been made in the working of the school, but minor improvements have been effected in the working of several of the departments, and there has been progress both in the quantity and quality of the work turned out. The experiment of placing the industrial departments under trained Assistant Engineers who have completed their full course in the College of Engineering has, I am glad to say, proved very satisfactory. Both the men appointed have worked to my satisfaction and as they have gained a large amount of experience in the management of workshops, I hope that it will be possible to find suitable employment for them as Superintendents of District Industrial schools or as managers of private workshops. The training given in the Engineering College is an eminently practical one and my experience leads me to think that the passed students of that college might well be employed, with advantage, in many positions, outside those requiring a knowledge of Civil Engineering, for which, hitherto, they have not been considered suitable.

The time allotted for the preparation of the exhibits for the Delhi Darbar Exhibition was very short and, in consequence, a very large amount of extra work was thrown upon the staff of the school, and I desire to bring to your notice the energy and zeal with which the work was done by all concerned.

APPENDIX.

Table I.

Strength of each of the Drawing classes.

Division.	Class.	Number on the roll on 31st March 1902.	Number on the roll on 31st March 1903.
I	Pre-Elementary	95	91
I	Elementary	73	83
I	Group certificates	108	94
I	Advanced	42	39
II	Special Painting	3	9
	Total ..	321	316

Table II.

Strength of each of the Industrial classes.

Departments.	1901-1902. Paid apprentices.	1901-1902. Unpaid apprentices.	1901-1902. Total.	1902-1903. Paid apprentices.	1902-1903. Unpaid apprentices.	1902-1903. Total.
1. Carpentry	24	7	31	36	5	41
2. Metal work	17	10	27	25	13	38
3. Lacquer work	15	17	32	18	9	27
4. Jeweller's work	7	1	8	7	..	7
5. Carpet weaving	4	1	5	9	..	9
6. Modelling	7	5	12	12	1	13
Total ..	74	41	115	107	28	135

Table III.

Classification of the pupils according to the class of the community to which they belong.

Classes of community.	31st March 1902.			31st March 1903.		
	Males.	Females.	Total.	Males.	Females.	Total.
Europeans and Eurasians	8	20	28	6	16	22
Native Christians	33	..	33	32	4	36
Muhammadans	10	..	10	11	..	11
Brahmans	19	..	19	15	..	15
Non-Brahman Caste Hindus	228	..	228	229	..	229
Panchamas	3	..	3	3	..	3
Total ..	301	20	321	296	20	316

Table IV.

Classification of the pupils according to their general education attainments.

	1901–1902. Students.	1902–1903. Students.
B.A. examination	...	...
F.A. ,, ...	2	...
Matriculation examination	5	6
Lower Secondary ,, ...	28	39
Primary examination	41	40
Unpassed	241	231
Higher examination for Women	2	...
Ignorant of English	2	...
Total ...	321	316

Table V.

Results of the various Government Technical examinations held in November and December 1902.

Subjects.	Grade.	1901–1902. Number appeared.	1901–1902. Number passed.	1902–1903. Number appeared.	1902–1903. Number passed.
Freehand outline drawing	Elementary ..	92	53	50	25
	Intermediate ..	45	27	35	20
	Advanced	13	2	12	8
Geometrical drawing	Elementary ..	71	19	29	9
	Intermediate ..	32	3	22	15
	Advanced	7	6	7	5
Design	Elementary ..	43	23	21	16
	Intermediate	18	14	3	3
	Advanced	2	1	1	1
Painting	Elementary ..	52	30	21	16
	Intermediate ..	18	6	8	7
	Advanced	2	1	1	..
Modelling	Elementary ..	2	2	1	1
	Intermediate ..	4	3	1	1
	Advanced	1	1	1	..
Wood-engraving	Intermediate ..	1	1	1	1
	Advanced	1	1	..	..
Copper-plate engraving	Intermediate ..	2	1	1	1
	Advanced	..	..	..	..
Cabinet-making	Elementary ..	12	8	62	28
	Intermediate ..	3	2	17	15
	Advanced	2	2	9	3
Metal work	Elementary ..	..	..	29	17
	Intermediate ..	..	..	8	5
	Advanced	2	..	5	3
Jewellers' work	Elementary ..	..	..	5	5
	Intermediate ..	..	..	..	..

Table VI.

Statement of receipts and charges of the School of Arts, Madras, for 1902–1903.

Receipts.	Rs. A. P.	Rs. A. P.	Expenditure.	Rs. A. P.	Rs. A. P.
Drawing class—Fees ..	4,179 2 0		Assistant Superintendent ..	2,400 0 0	
General education class—Fees.	15 0 0		Establishment—Permanent.	5,065 5 7	
			Do. Temporary.	5,462 0 6	
			Scholarships	1,838 2 11	
			Stipends of apprentices ..	4,387 6 9	
			Tools and plant	2,491 14 6	
			Municipal assessment ..	1,006 8 0	
			Postage charges	200 0 0	
			Telegraph charges	8 4 0	
			Office expenses and other contingencies.	858 9 0	
Total ..	..	4,194 2 0		..	..
Balance ..	..	19,523 11 3		..	..
Grand Total ..	..	23,717 13 3	Grand Total ..	..	23,717 13 3

Table VII.

Carpentry Department.

Statement of assets and liabilities.

Assets.	Rs. A. P.	Rs. A. P.	Liabilities.	Rs. A. P.	Rs. A. P.
Amount of receipts ..	11,118 0 3		Amount of expenditure ..	13,259 5 8	
Sundry debtors	11,965 12 3		Liabilities	804 14 3	
Stock of manufactured articles on the 31st March 1903.	5,641 10 8		Expenditure in connection with the Indian Art Exhibition at Delhi.	16,479 7 7	
Stock of unfinished articles on the 31st March 1903.	1,493 0 0		Outstandings on the 31st March 1902.	3,053 10 9	
Stock of materials on the 31st March 1903.	911 0 0		Stock of manufactured articles on the 31st March 1902.	1,705 0 0	
Value of tools and plant.	1,355 0 0		Stock of unfinished articles on the 31st March 1902.	1,248 0 0	
Liabilities of 1901–1902 paid during the year.	215 6 10		Stock of materials on the 31st March 1902.	582 0 0	
Total ..	..	32,699 14 0			
Balance ..	..	4,432 8 3			
Grand Total ..	..	37,132 6 3	Grand Total ..	..	37,132 6 3

Table VIII.

Miscellaneous Department.

Statement of assets and liabilities.

Assets.	Rs. A. P.	Rs. A. P.	Liabilities.	Rs. A. P.	Rs. A. P.
Amount of receipts ..	10,135 1 9		Amount of expenditure ..	12,660 0 0	
Sundry debtors	6,736 8 4		Liabilities	710 0 1	
Stock of manufactured articles on the 31st March 1903.	3,547 4 8		Expenditure in connection with the Indian Art Exhibition.	8,520 8 5	
Stock of unfinished articles on the 31st March 1903.	825 0 0		Outstandings on the 31st March 1902.	1,806 14 11	
Stock of materials on the 31st March 1903.	772 0 0		Stock of manufactured articles on the 31st March 1902.	1,925 12 0	
Value of tools and plant on the 31st March 1903.	1,503 0 0		Stock of unfinished articles on the 31st March 1902.	1,152 12 6	
Liabilities of 1901–1902 paid during the year.	81 10 3		Stock of materials on the 31st March 1902.	345 13 3	
Total ..	..	23,600 9 0			
Balance ..	..	3,521 4 2			
Grand Total ..	..	27,121 13 2	Grand Total ..	..	27,121 13 2

Table IX.

Weaving Department.

Statement of assets and liabilities.

Assets.	—	—	Liabilities.	—	—
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Amount of receipts ..	4,174 7 9		Amount of expenditure ..	12,779 1 8	
Sundry debtors	71 9 6		Liabilities	154 4 4	
Stock of manufactured articles on the 31st March 1903.	1,011 0 0		Outstandings on the 31st March 1902.	1,036 10 7	
Stock of unfinished articles on the 31st March 1903	32 9 0		Stock of manufactured articles on the 31st March 1902.	523 8 0	
Stock of materials on the 31st March 1903.	300 10 0		Stock of unfinished articles on the 31st March 1902.	205 8 0	
Value of tools and plant on the 31st March 1903.	1,617 0 0				
Liabilities of 1901–1902 paid during the year.	2,062 13 9		Stock of materials on the 31st March 1902.	1,084 8 9	
Total ..	..	9,270 2 0			
Balance ..	..	6,513 7 4			
Grand Total ..	..	15,783 9 4	Grand Total ..	..	15,783 9 4

Table X.

Aluminium Department.

Statement of assets and liabilities for the year 1902–1903.

Assets.	Amount.	Total.	Liabilities.	Amount.	Total.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Receipts	..	1,65,374 1 5	Materials	1,54,650 5 1	
Sundry debtors	..	66,857 4 2	Wages of workmen ..	34,518 15 8	
Stock of manufactured articles on hand on the 31st March 1903.	17,601 5 0		Tools and plant ..	20,244 8 9	2,24,001 0 8
			Establishment	8,643 7 11	
			Contingencies ..	5,943 11 3	
Stock of unfinished articles on hand on the 31st March 1903.	10,269 11 2	1,27,565 14 7	Advance	..	326 8 7
			Liabilities—		
			Establishment ..	709 9 9	
Stock of materials on hand on the 31st March 1903.	96,220 11 8		Wages of workmen ..	499 14 4	
			Pieceworkers ..	653 1 1	
Stock of manufactured articles with agents less 25 per cent.	3,474 2 9		Contractor for materials.	333 4 8	2,341 6 8
			Agents' expenses ..	93 7 0	
Amount of liabilities of previous years paid during the year.	..	15,080 10 11	Miscellaneous	52 2 3	
			Stock of articles on hand on the 31st March 1902.	..	1,22,831 0 10
Tools and plant 9,266 less 12½ per cent. + 20,244–8–9 (fresh).	..	28,352 4 9	Tools and plant on 31st March 1902 less 12½ per cent.	..	9,266 2 0
Blocks and paper for the new price list.	..	1,250 4 1	Outstandings on 31st March 1902.	..	42,611 4 9
			Bad debts	..	123 6 10
			Balance	..	2,979 9 7
	..	4,04,480 7 11		..	4,04,480 7 11

Table XI.

Receipts and Sales.

Departments.	Receipts.		Sales.	
	1901–1902.	1902–1903.	1901–1902.	1902–1903.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Woodwork department	7,095 3 10	11,118 0 3	8,738 15 5	20,689 3 9
Carpet-weaving ,, ...	1,369 0 6	3,208 14 0	1,181 4 0	3,135 8 0
Metal work ,, ...	9,421 10 6	4,500 9 7	9,813 10 4	8,801 1 4
Jeweller's work ,, ...	385 2 0	442 7 0	535 13 0	420 11 0
Modelling and Pottery department	4,539 1 1	1,699 11 3	2,750 14 10	1,758 3 11
Engraving department	15 6 0	158 10 6	14 2 0	188 1 6
Lacquer work, Drawing and Miscellaneous ..	611 8 3	124 13 5	388 0 9	1,273 13 4
Weaving	176 15 5	4,174 7 9	1,123 10 11	4,295 3 5
Total ..	23,613 15 1	25,427 9 9	24,556 7 3	40,561 14 3

Proceedings, Dis. No. 4527 of 1903.

Staff.—Mr. Chatterton remained in charge of the institution during the year but was absent from Madras for 78 days, which were spent partly on inspection duty and partly in visits to Delhi in connection with the Arts Exhibition. Early in the year the services of Mr. Brand, the Industrial Assistant, were transferred to the Punjab Government, and in his place two passed Engineer students of the College of Engineering were appointed on Rs. 150 each per mensem, and this arrangement is reported to have proved satisfactory.

2. *Accommodation.*—The school buildings were repaired during the year and owing to the abolition of the pottery department, the machinery of that department and the kiln were dismantled. In the space thus rendered available, the new machinery for the aluminium department was set up.

3. *Library and Museum.*—The library received an addition of 48 books and the museum of a few more glass cases. The Superintendent's remarks as regards the usefulness of the museum as a show-room are noted.

4. *Strength and Attendance.*—The strength declined slightly from 321 to 316. As usual the majority of the students are non-Brahman caste Hindus. The average daily attendance has not been given though it is stated that for the past two years it has been 75 per cent. Considering that it was 78 per cent. last year, there must have been a fall in it during the year under report. The classification of the pupils according to the occupation of their parents has not been furnished, but mention should have been made at least of the number belonging to the artisan classes. Eighty-five of the pupils against 78 in the previous year had passed a general education test. The elementary and special painting classes gained 16 pupils, while the three other drawing classes lost 21 pupils. There were 135 against 115 apprentices, the industries most largely resorted to being carpentry, metal work and lacquer work. The omission of all reference to the special evening classes should be explained. The Director is unable to endorse entirely Mr. Chatterton's suggestion to abolish the general education classes. Every apprentice should when he leaves the school have a knowledge of elementary arithmetic, and more especially of simple colloquial English, which will help considerably in enlarging the sphere of his practice in after life, and if the minimum educational qualifications to be insisted on prior to his admission into the school do not include such knowledge it is necessary that he should have the opportunity of acquiring it while undergoing his industrial training.

5. *Examinations.*—In all 210 pupils appeared for the several drawing examinations and 125 of them passed against 395 entrants and 185 passes in the previous year. Thus, the numbers presented and passed were comparatively smaller, but the percentage of success rose from 47 to 60. For the five industrial examinations 137 candidates appeared and 78 passed, the corresponding figures for the previous year being 23 and 15, respectively. In this case the percentage fell from 65 to 57, but there was a considerable increase in the number that appeared and passed. The fall in the number of entrants for the drawing examination accompanied by a corresponding increase in the number that entered for the industrial examinations, is a satisfactory feature in the working of the school. Mr. Chatterton's explanation of this circumstance would appear to be correct and is supported by the fact stated in the next paragraph regarding the students who passed out from the school during the year. Information regarding the number of students that passed the Technical Teachers' certificate examinations has not been furnished this year also. It is observed that no students appeared for the examinations in carpet-weaving, but five appeared for and passed the examination in jeweller's work against none last year.

6. *Former students.*—It is stated that of the fourteen students who completed their course all but two who had obtained employment as drawing masters are employed in the school workshops.

7. *Finance.*—Excluding the Aluminium department, the total amount of sales rose from Rs. 24,556 to Rs. 40,562 and this large increase is due to the large sales at the Delhi exhibition. The net expenditure of the year, taking the cost of the several departments of the school except the Aluminium department, was Rs. 33,991. The cost of the Art department, viz., Rs. 19,524, also includes the salaries of those of the industrial teachers whose salaries are paid from the budget of the School of Arts, 22, Education, and the stipends of the apprentices. The sales of the Aluminium department were Rs. 1,89,980 and the expenditure incurred during the current year was Rs. 2,24,001. From table 10 appended to the report it is observed that the industry worked at a profit of Rs. 2,980. It is stated that, owing to the reduction in the price of the raw material, the stock on hand had to be revalued and that this resulted in a sum of Rs. 10,000 being written off. But for this large reduction in the value of material, the profits of the year would stand at a very much higher figure.

8. *General.*—In paragraph 8 of the report Mr. Chatterton gives an account of the working during the year of the several industries. The work of the Aluminium department was of a more restricted character than in previous years, the execution of military orders in aluminium ware having been largely left to private agencies. The expansion of the industry is indicated by the figures showing the quantities of raw material used during the year, but some statistics might have been furnished to show the extent to which aluminium vessels are purchased for domestic use in native households. It is hoped that, with the aid of the new machinery recently set up, cheaper and better articles will be produced and the metal as Mr. Chatterton anticipates, be firmly established in the confidence of the native public When this is accomplished it will be possible to leave the industry entirely to private enterprise. Fuller information regarding the progress made in the preparation of the catalogue of Indian art work should have been furnished. The wood carving and carpet-weaving departments did more work, but the same cannot be said of the metal-work and jeweller's work departments. Judging from the increase in the sales, fairly satisfactory work seems to have been done in the weaving department. It is noted with pleasure that at the Delhi Exhibition the school secured three silver medals, two bronze medals and two certificates of commendation.

9. The working of the school during the year was on the whole satisfactory. The changes that occurred were all in the way of improvement, and it is creditable to the members of the staff that the general progress of the institution was not affected by the large amount of additional work imposed on them on account of the Delhi Exhibition.

(A True Extract)

(Signed) G. H. STUART,
Director of Public Instructian.

To the Superintendent, School of Arts.
" the Inspectors of Schools.
" the Inspector of Technical Schools.
" the Inspectresses of Girls' Schools.
" the Principals of Colleges.
" the Managers of Industrial Schools.
Copy to Government, with C.L.

Order—No. 396, Educational, dated 22nd August 1903.

The proposals for the reorganization of the School of Arts having been held in abeyance pending the orders of the Government of India on the report of the committee on industrial education, the school was worked during the year on the existing lines.

2. The number of students in the drawing classes was nearly the same as in the previous year, but the number appearing for the several examinations in drawing and modelling was only 213 against 402 in 1901-1902. Both the Superintendent and the Director of Public Instruction regard this as a satisfactory feature in the working

of the school, but the reasons for this opinion are not very apposite. If students are occupied in the study of drawing, and if the teaching is efficient, it is desirable that they should appear for and pass the examinations held in that subject. Whether there is or is not a demand for drawing masters, the Government is not prepared to allow the arts section of the school to be subordinated to the industrial section. The percentage of success in the drawing examinations showed an improvement.

3. The number of students in the industrial classes rose, and there was also an advance in the number appearing for the industrial examinations. The opinion is expressed by the Superintendent that the majority of apprentices now in the school are learning their trade with a view to following it in after-life. Government desires to be assured that the apprentices belong to classes who are likely to keep to industrial pursuits; the Superintendent should be careful, as far as possible, to encourage the entrance of those classes and to prevent the school stipends being utilized by persons who are unlikely to work as artizans after the end of their training.

4. The revised scale of fees sanctioned in G.O., No. 773, Educational, dated 21st December 1901, was in force throughout the twelve-month and resulted in a large increase in the amount realized from this source.

5. The Superintendent expresses the opinion that the classes in general education should be abolished and the Director apparently gives a qualified agreement. Before expressing any final opinion, His Excellency the Governor in Council wishes to receive a special report on this subject, showing the cost of the classes in general education, the nature of the instruction given, and the results as shown by examinations.

6. A large number of exhibits was sent to the Darbar exhibition at Delhi, the Government having made a special grant of Rs. 25,000 for the purpose. The success achieved by the school was not marked, but most of its productions were sold.

7. The information supplied by the report is not sufficient to enable the Government to review the working of the Aluminium department. The action of the Superintendent in revaluing stock in hand and in writing off Rs. 10,000 was unauthorised and must now be reported for special orders. The control of supply of the metal resting with the School of Arts, it is not apparent that the reduction in the cost thereof should have been applied to the metal obtained at higher values which, in ordinary course, should be worked off at those values. So large a sum as Rs. 67,000 should not have been left outstanding; it is understood that the Superintendent has already taken steps to reduce this credit.

8. Mr. Chatterton's useful and interesting experiments to determine the value of aërmotors for irrigation purposes and in connection with liquid fuel are noted with approval.

(True Extract.)

A. G. CARDEW,
Ag. Secretary to Government.

To the Director of Public Instruction.

Ex'd. P. Cunniah.

1,000-11-3-01.

Educational (1903.) Department.

CURRENT No. 1175

From

[Name] The Hon'ble Mr. G. H. Stuart, M.A.,

[Designation] Director of Public Instruction,

[Station] Madras.

Pres
Govt
Edn
28-7-03

Ino
To be printed along with the order on this current
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C. No. 5416/03

Dated 27th J U L Y 1903.

Received 190 .

Enclosures one

Registered 28-7- 1903.

SECRETARY TO GOVERNMENT
28 JUL 1903
LOCAL & MUNICIPAL DEPARTMENT

SUBJECT.

Submitting a copy of [redacted] Proceedings Dis No. 4527, dated 22nd July 1903, reviewing the report on the working of the School of Arts, Madras during 1902-1903.

BACK PAPERS.

G.O. no. 3905 dt 8-7-02	G.O. no. 5558 dt 11-9-02
G.O. no. 1795 dt 9-1-02	G.O. no. 478-1898 dt 1/02
G.O. no. 1145 dt 4-3-02	G.O. no. 6145 dt 4-10-02
G.O. no. 3336 dt 3-6-02	G.O. no. 6855 dt 4-11-02
G.O. no. 3736 dt 27-6-02	

FURTHER PAPERS.

To

The Secretary to Government,

Educational Department.

Sir,

I have the honour to submit, for the information of Government, a copy of my Proceedings Dis No. 4527, -- dated 22nd July 1903, reviewing the report on the working of the School of Arts, Madras during 1902-1903.

I have the honour to be,

Sir,

Your most obedient servant,

For Director of Public Instruction.

Proceedings of the Director of Public Instruction.

Dis. No. 4527, 22nd July 1903.

Despatched	**1903.**	**Enclosures**
Received		**Spare copies**

Subject :

School of Arts, Madras.—Reviewing the annual report on the working of the — during 1902–1903.

Dis. No. 4527.

PROCEEDINGS OF THE DIRECTOR OF PUBLIC INSTRUCTION, dated 22nd July 1903.

Report on the School of Arts.

Read the following letter from A. CHATTERTON, Esq., Officer in charge, School of Arts, Madras, to the Director of Public Instruction, dated 20th May 1903, No. 640 :—

I have the honour to submit the annual report of the School of Arts for the official year 1902–03. In accordance with G.O., No. 390, Educational, dated 8th July 1902, the report has been made as brief as possible, and all tabular statements of no importance, or which cannot be accurately verified, have been omitted.

2. I was in charge of the school during the year, but I was absent from Madras for 32 days on account of work connected with my duties as Inspector of Technical Schools and for 46 days I was away at Delhi in charge of the school exhibits in the Indian Art Exhibition. The services of the Industrial Assistant Mr. G. E. Brand were placed at the disposal of the Punjab Government with effect from the 25th April 1902 and in his place two passed students of the Engineer Class of the College of Engineering were appointed on a salary of Rs. 150 per mensem each. M.R.Ry. M. Velayudha Asari, the Assistant Superintendent, availed himself of three months' privilege leave from the 11th March 1903 and M.R.Ry. T. G. Krishnaswami Pillai, Art Instructor of the Kumbakonam College, was appointed to act for him.

3. *Drawing Classes.*—There were 316 pupils on the rolls of the school on the 31st March as compared with 321 at the same date in the previous year. The average daily attendance for the two years was 75 per cent. All the pupils pay fees according to the sanctioned scale, but 107 are also apprentices in the various industrial departments and receive stipends. The total amount received on account of fees was Rs. 4,179–2–0 as against Rs. 2,146–3–6 in the previous year. Tables I, II, III and IV in the appendix give detailed information regarding the strength of the various classes, the educational attainments of the pupils and the classes of the community to which they belong. From Table II it will be seen that there was a considerable increase in the number of paid apprentices and a proportionate decrease in the number of unpaid apprentices. The expenditure on stipends rose from Rs. 3,014–13–2 in the previous year to Rs. 4,387–0–9 and it may be expected to increase in future years as the apprentices increase in proficiency. Compared with mofussil schools the stipends paid to apprentices in Madras are much lower and a fair proportion of the money paid to them is recovered by the sale-proceeds of the work they do. It may be assumed that the majority of the apprentices now in the school are learning their trade with a view to following it in after-life, as their instruction in drawing is confined to two hours a day and they are not allowed, as was formerly the case, to neglect their industrial work in order to go up for drawing examinations which would qualify them to become drawing masters.

4. *General Education Classes.*—These classes were attended by only 76, out of 135, apprentices so that it is evident they are not much appreciated, and I think it will be desirable to abolish them when the school is finally reorganized and to insist that every apprentice shall possess certain minimum educational qualifications before he is enrolled as an apprentice in the school.

5. In table V in the appendix the results of the various Government Technical examinations held in November and December 1902 are compared with those of the previous year. From this statement it will be seen that there is a considerable decrease

in the number of candidates appearing for the various drawing examinations and a very large increase in the number of candidates appearing for the industrial examinations. This result is, I think, fairly satisfactory as indicating that the apprentices are now devoting their time to the acquisition of a knowledge of their trade and have given up, to a large extent, the idea of ultimately becoming drawing-masters. This is partly due to the fact that there are very few vacancies for drawing-masters as all the appointments under the Educational Department have been filled and new classes are not often created. For artizans trained in the School of Arts there has lately sprung up a considerable demand ; and at the present time I have nearly a dozen applications for maistries, and I find it extremely difficult to send out thoroughly qualified men. An apprentice who has passed the advanced examination of his trade can easily get employment on good wages; but the prospects of employment for pupils in the art classes are not encouraging, and, unless new openings can be found for them the number of art students in the school is likely to continue to decrease.

6. A register of all the students who have left the school is maintained, and, as far as possible, a record is kept of their work. During the year under review 14 students completed their course of instruction, of whom only two obtained drawing-masterships on Rs. 15 a month and the majority continued in the school workshops, working at their trade for daily wages. These passed apprentices now occupy in the workshops of the school positions analogous to what is known as "Improvers" in English workshops, and in course of time as they get increased experience, they will become full-time workmen and will get employment as maistries in other workshops or as instructors in other schools.

The statements of accounts for the financial year are given in Tables VI, VII, VIII, IX and X in the appendix. From these statements it will be seen that the cost of the art department was Rs. 19,523–11–3, of the carpentry department, Rs. 4,432–8–3, of the miscellaneous department, Rs. 3,521–4–2, and that of the weaving department Rs. 6,513–7–4, whilst the Aluminium department made a nett profit of Rs. 2,979–9–7 making the total cost of the school for the year Rs. 31,011–5–5, which is almost exactly the average annual expenditure on the School of Arts during the past twelve years, viz., Rs. 31,186–2–9. The accounts here shown, however, include the whole of the expenditure incurred on the Delhi Darbar Exhibition for which a special grant of Rs. 25,000 was made.

In Table XI in the appendix details of the sales and receipts in the various departments are given, showing that the total sales increased from Rs. 24,556–7–3 in 1901–02 to Rs. 40,561–14–3 in 1902–03. The large outstandings at the end of the year are almost entirely due to the sale proceeds which were realized at Delhi not having been remitted till after the close of the year by the exhibition authorities.

7. In connection with the Delhi Darbar it was decided to hold an exhibition of Indian art industries and Government appointed a special committee consisting of the Hon'ble Mr. J. N. Atkinson as President and Mr. Edgar Thurston and myself as members to supervise the preparation of a representative exhibition of the art industries of the school. A sum of Rs. 25,000 was placed at the disposal of the committee for the purpose. It was found impracticable to keep separate accounts of the expenditure on this exhibition, and the sum allotted was accordingly treated as a special grant and divided between the two departments of the school concerned in the production of the art exhibits. The exhibition authorities have not yet furnished us with a final statement of the sales account but the following statement represents the results of the exhibition as far as can be ascertained at the present time :—

Delhi Darbar Exhibition accounts.

	RS.	A.	P.
Goods sold	21,778	5	8
Goods returned	3,065	5	4
Goods not accounted for	1,152	0	0
Total ...	25,995	11	0
Value of goods sent to Delhi	25,995	11	0

From this it will be seen that out of Rs. 26,000 worth of goods, Rs. 23,000 worth were sold and remittances on account have been made to the extent of Rs. 20,626-12-10. This is, in itself, a good enough result, but nothing else has come from the exhibition. Of all the enquiries made at the exhibition, only one has resulted in an order and it has in no way produced a demand for the school productions. This, I am inclined to think, is largely due to the lines on which the exhibition was run. The space available for the display of such exhibits as were sent from the School of Arts was totally insufficient and they were scattered all over the exhibition building, so that it was not possible to show, at a single glance, the productive capabilities of the school. Moreover, all sales were conducted by the exhibition staff and individual exhibitors had no opportunity of doing business with purchasers direct. The exhibition doubtless achieved the objects with which it was held, but, if any commercial development of these art industries is to take place, I think it will be necessary to hold an exhibition either in Bombay or Calcutta or, possibly better still, in London, on the usual commercial lines. So far as the School of Arts is concerned, the exhibition resulted in a considerable sale of the school productions and I have no doubt that, if it were possible to arrange for the school to exhibit representative collections of South Indian Art work at such exhibitions as those which will be held in the immediate future at Johannesburg and St. Louis, it would result in a permanent demand for our art productions and would lead to a very considerable expansion in the trade. In other countries this would undoubtedly be left to private enterprise, but in India the prospects of profit are not enough to attract private firms and if it is considered desirable to re-establish Indian Art industries on their old footing and adapt them to the requirements of modern life, there is not the least doubt that it will have to be done by Government, and that Government will have to look for a return on its expenditure to the indirect advantages which would result from a successful effort in this direction. I should have liked to have submitted proposals, for the consideration of Government, based on these lines, but I felt that it was not worth while doing so till the Government of India have indicated the general policy which they wish to have pursued in matters of this kind.

The Judging Committee of the Exhibition of Indian Art Manufactures at Delhi awarded 19 gold medals, 83 silver medals, 115 bronze medals and 110 certificates of commendation; of these 2 gold medals, 13 silver medals, 21 bronze medals and 13 certificates were awarded to the Madras Presidency including Travancore and Mysore. For the exhibits of the School of Arts, 3 silver medals, 2 bronze medals and two certificates of commendation were awarded. In this connection I think it is not unfair to say that the school was placed at a disadvantage through the inadequate space available for its exhibits.

8. *Industrial Departments*—(*a*) *Aluminium Department.*—During the year the sales in this department amounted to Rs. 1,89,979–12–7 and the expenditure to Rs. 2,24,001–0–8. The expenditure on new machinery amounted to Rs. 20,244–8–9, but owing to the fact that it was not delivered till last October and to my absence at Delhi during the greater part of December and January, it was not brought into full operation till the beginning of February and as it takes a considerable time to find a market for a new class of goods it is only now that we are beginning to reap the benefit of this outlay. Towards the end of the year we were able to secure a reduction in the price of raw metal, and this, combined with the diminished cost of manufacture, has necessitated a careful revaluation of all the stock on hand, with the result that we have had to write off fully Rs. 10,000 to arrive at the present market value of our stock. Our efforts to develop native business by the employment of travelling agents and by the opening up of new agencies in various parts of the Presidency have entailed considerable expenditure which will be recovered when the business grows larger. To these two causes I attribute the comparatively small profit made by the department during the year; but as our accounts now correctly represent the market value of our stock and as we are doing a fairly good trade among natives, the work of the present year ought to be of a very profitable character.

With the exception of small imports into Bombay, the supply of metal to India is entirely controlled by the School of Arts and great progress has been made during the past year in the sales of raw metal to other manufacturers. The weight of

aluminium used in the workshops was 44,843 lb., and 51,533 lb. was sold to other manufacturers. This is a very satisfactory result as it shows that the industry is spreading throughout the country and that it is now possible to leave its further development to private enterprise with a fair prospect of success. During the year the character of the business done by the School of Arts has very materially changed. There was some decrease in the value of military orders due to the fact that they have been placed more extensively with the Indian Aluminium Company, and there was also a decrease in the sales of articles suited to Europeans, owing to the same company having mainly devoted their attention to this part of the business. As I consider it undesirable on the part of a Government institution to make any effort to retain this business, the Aluminium department has therefore been mainly engaged in efforts to encourage the sale of aluminium among natives and in this direction we have had to compete with imported enamelled ironware and, to some extent, with imported german silver. On the whole, the results have been very encouraging and I think there is not the least doubt that aluminium has permanently obtained a footing in the domestic arrangement of native households. A good deal of experience has been gathered during the period the department has been in operation, and we are able now to say for what purposes aluminium can be advantageously employed, and by restricting ourselves to the manufacture of only such articles as, we know, will prove satisfactory, we are gradually establishing the metal in the confidence of the native public.

The machinery received from England included a drawing press, a cutting-out-press, a milling machine and some spinning lathes, and it has been erected in the space left vacant on the abolition of the Pottery department. The new workshop is well equipped with modern metal-working machinery and within the range of its production we are able to manufacture goods at probably as low a cost as anywhere in the world. The total net expenditure by Government on the Aluminium department now amounts to Rs. 1,70,228–0–5 and this sum, together with the accumulated profits of working during the past five years, provides sufficient capital for the future working of the industry and it will now be possible to carry on the department efficiently and provide that in the future the receipts shall exceed the expenditure.

(*b*) *Wood-working Department.*—Apart from the Delhi Exhibition there was an increase in the amount of work turned out in this department as compared with previous years. Good progress has been made in the preparation of illustrations for the Catalogue of Indian art work and it has been arranged with Mr. Edgar Thurston, who has under preparation a monograph on South Indian wood carving, that the same should be suitable, when illustrated at the expense of the School of Arts, for the letter-press of the catalogue.

(*c*) *Carpet-weaving Department.*—In this department the sales increased from Rs. 1,181–4–0 in the previous year to Rs. 3,135–8–0, which is about as much the work as could possibly be turned out with the limited number of looms available. A very considerable reduction in the cost of manufacture was effected during the year but, owing to the high wages which have to be paid to carpet weavers in Madras, it has not yet been found possible to turn out work so cheaply as in Ellore. The question of transferring the whole business to that town is now in abeyance but it has not been lost sight of, and proposals regarding the future of the industry will be made as soon as the Government of India have passed orders regarding industrial education.

(*d*) The only other department of the school on which it is necessary to make any remarks is the experimental weaving shed which has been established on the Mount Road. From the accounts it will be seen that the net cost to Government was Rs. 6,513–7–4. The following statement shows the number of yards of cloth of each description woven during the year:—

	Yards.
Madras handkerchiefs	11,774
Grey salampore	1,598
Soosee	699
Angavastrams	151
Podava (women's cloth)	17

Under the orders of Government the work of this department has been restricted to the minimum possible, consistent with carrying on experiments for the improvement of hand-weaving. It has been definitely ascertained that the fly-shuttle loom can be used with advantage by native weavers and a number of minor improvements in its construction have been effected, which tend to increase the facilities with which work can be done. There is no doubt that the use of fly-shuttle looms is gradually spreading and this department may fairly claim credit for much of the advance that has been made. It has also been definitely ascertained that, if any further improvement is to be effected in hand-weaving processes, it lies entirely in the direction of improving the methods of preparing the warp and of sizing. The native system of sizing and warping has been given up in favour of hank-sizing with, I think, some slight advantage in the cost of producing warps. Full development of work in this direction has been delayed as Government decided that no expensive purchase of machinery for experiments should be made till the Government of India had decided what was to be done with regard to this industry.

(*e*) *Pottery Department.*—Early in the year the Pottery department was finally closed and the large kiln and machinery for the grinding of clay dismantled. The greater part of the stock has been sold and the balance still on hand is gradually being disposed of.

9. *Library and Museum.*—During the year 48 new books were added to the library at a cost of Rs. 500. The number of glass show-cases in the museum has been largely increased and better arrangements have been made to display articles manufactured in the school. As a show-room the museum serves a very useful purpose and the sales effected therein average now about Rs. 1,200 a month. In the old Superintendent's quarters, which are now used as offices, two small rooms have been decorated by the apprentices in the Painting department so that they can be used as show-rooms for the display of furniture which cannot be conveniently exhibited in the museum. The stock of art furniture is still very small and it will be desirable to increase it as experience continues to support the idea that there would be a great many more purchasers of the products of the Indian Art industries if they could be seen before purchase and obtained without any delay. In this connection it is satisfactory to record that the Committee of the Victoria Jubilee Technical Institute have decided, with the approval of Government, to build a Memorial hall in the compound of the Government Museum to serve as a permanent exhibition of Madras Art Industries.

10. *Aermotor.*—The experiments to determine the value of aermotors for irrigation purposes, which were started last year, have been brought to a conclusion, and I have submitted a report on the same to the Board of Revenue. The conclusion I have arrived at is distinctly favourable to the employment of wind engines in localities where the circumstances are suitable.

11. *Liquid Fuel.*—There are two oil engines employed in driving the machinery in the workshops and till quite recently they have been worked with kerosine-oil. It however occurred to me that it might be possible to use liquid fuel, and an experiment was first made on the oil engine in the Engineering College by Mr. James. The result was distinctly favourable and we are now using liquid fuel to drive these engines instead of kerosine-oil. I find that 8 gallons of liquid fuel costing As. 3 a gallon will do as much work as 9 gallons of kerosine-oil costing As. 7 a gallon. The cost of running the engines has therefore decreased in the ratio of 63 to 24 and the saving in the School of Arts workshops amounts to about Rs. 80 a month. There are a considerable number of these engines running in India, and as these results have attracted considerable attention among the users of oil engines, when they are fully known and made use of, the total saving effected by the use of liquid fuel instead of kerosine-oil will amount to many thousand rupees a month. This important reduction in the cost of generating power by oil engines is likely to prove of great importance in the development of schemes for irrigating land by water pumped from wells or river channels.

12. *General Remarks.*—During the year under review no material changes have been made in the working of the school, but minor improvements have been effected in the working of several of the departments, and there has been progress both in the

quantity and quality of the work turned out. The experiment of placing the industrial departments under trained Assistant Engineers who have completed their full course in the College of Engineering has, I am glad to say, proved very satisfactory. Both the men appointed have worked to my satisfaction and as they have gained a large amount of experience in the management of workshops, I hope that it will be possible to find suitable employment for them as Superintendents of District Industrial schools or as managers of private workshops. The training given in the Engineering College is an eminently practical one and my experience leads me to think that the passed students of that college might well be employed, with advantage, in many positions, outside those requiring a knowledge of Civil Engineering, for which, hitherto, they have not been considered suitable.

The time allotted for the preparation of the exhibits for the Delhi Darbar Exhibition was very short and, in consequence, a very large amount of extra work was thrown upon the staff of the school, and I desire to bring to your notice the energy and zeal with which the work was done by all concerned.

APPENDIX.

TABLE I.

STRENGTH of each of the Drawing classes.

Division.	Class.	Number on the roll on 31st March 1902.	Number on the roll on 31st March 1903.
I	Pre-Elementary	95	91
I	Elementary	73	83
I	Group certificates	108	94
I	Advanced	42	39
II	Special Painting	3	9
	Total	321	316

TABLE II.

STRENGTH of each of the Industrial classes.

Departments.	1901–1902. Paid apprentices.	1901–1902. Unpaid apprentices.	1901–1902. Total.	1902–1903. Paid apprentices.	1902–1903. Unpaid apprentices.	1902–1903. Total.
1. Carpentry	24	7	31	36	5	41
2. Metal work	17	10	27	25	13	38
3. Lacquer work	15	17	32	18	9	27
4. Jeweller's work	7	1	8	7	..	7
5. Carpet weaving	4	1	5	9	..	9
6. Modelling	7	5	12	12	1	13
Total	74	41	115	107	28	135

TABLE III.

CLASSIFICATION of the pupils according to the class of the community to which they belong.

Classes of community.	31st March 1902. Males.	31st March 1902. Females.	31st March 1902. Total.	31st March 1903. Males.	31st March 1903. Females.	31st March 1903. Total.
Europeans and Eurasians	8	20	28	6	16	22
Native Christians	33	..	33	32	4	36
Muhammadans	10	..	10	11	..	11
Brahmans	19	..	19	15	..	15
Non-Brahman Caste Hindus	228	..	228	229	..	229
Panchamas	3	..	3	3	..	3
Total	301	20	321	296	20	316

Table IV.

Classification of the pupils according to their general education attainments.

	1901–1902. Students.	1902–1903. Students.
B.A. examination	...	...
F.A. ,, ...	2	...
Matriculation examination	5	6
Lower Secondary ,, ...	28	39
Primary examination	41	40
Unpassed	241	231
Higher examination for Women	2	...
Ignorant of English	2	...
Total ...	321	316

Table V.

Results of the various Government Technical examinations held in November and December 1902.

Subjects.	Grade.	1901–1902. Number appeared.	1901–1902. Number passed.	1902–1903. Number appeared.	1902–1903. Number passed.
Freehand outline drawing	Elementary ..	92	53	50	25
	Intermediate ..	45	27	35	20
	Advanced	13	2	12	8
Geometrical drawing	Elementary ..	71	19	29	9
	Intermediate ..	32	3	22	15
	Advanced	7	6	7	5
Design	Elementary ..	43	23	21	16
	Intermediate	18	14	3	3
	Advanced	2	1	1	1
Painting	Elementary ..	52	30	21	16
	Intermediate ..	18	6	8	7
	Advanced	2	1	1	..
Modelling	Elementary ..	2	2	1	1
	Intermediate ..	4	3	1	1
	Advanced	1	1	1	..
Wood-engraving	Intermediate ..	1	1	1	1
	Advanced	1	1	..	..
Copper-plate engraving	Intermediate ..	2	1	1	1
	Advanced	..	..	..	..
Cabinet-making	Elementary ..	12	8	62	28
	Intermediate ..	3	2	17	15
	Advanced	2	2	9	3
Metal work	Elementary ..	..	..	29	17
	Intermediate ..	..	..	8	5
	Advanced	2	..	5	3
Jewellers' work	Elementary ..	..	..	5	5
	Intermediate ..	..	..	..	..

Table VI.—Statement of receipts and charges of the School of Arts, Madras, for 1902–1903.

Receipts.	—	—	Expenditure.	—	—
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Drawing class—Fees ..	4,179 2 0		Assistant Superintendent ..	2,400 0 0	
General education class—Fees.	15 0 0		Establishment—Permanent.	5,065 5 7	
			Do. Temporary.	5,462 0 6	
			Scholarships	1,838 2 11	
			Stipends of apprentices ..	4,387 6 9	
			Tools and plant	2,491 14 6	
			Municipal assessment ..	1,006 8 0	
			Postage charges	200 0 0	
			Telegraph charges	8 4 0	
			Office expenses and other contingencies.	858 9 0	
Total ..	..	4,194 2 0		..	..
Balance ..	..	19,523 11 3		..	..
Grand Total ..	..	23,717 13 3	Grand Total ..	..	23,717 13 3

Table VII.

Carpentry Department.

Statement of assets and liabilities.

Assets.	—	—	Liabilities.	—	—
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Amount of receipts ..	11,118 0 3		Amount of expenditure ..	13,259 5 8	
Sundry debtors	11,965 12 3		Liabilities	804 14 3	
Stock of manufactured articles on the 31st March 1903.	5,641 10 8		Expenditure in connection with the Indian Art Exhibition at Delhi.	16,479 7 7	
Stock of unfinished articles on the 31st March 1903.	1,493 0 0		Outstandings on the 31st March 1902.	3,053 10 9	
Stock of materials on the 31st March 1903.	911 0 0		Stock of manufactured articles on the 31st March 1902.	1,705 0 0	
Value of tools and plant.	1,355 0 0		Stock of unfinished articles on the 31st March 1902.	1,248 0 0	
Liabilities of 1901–1902 paid during the year.	215 6 10		Stock of materials on the 31st March 1902.	582 0 0	
Total ..	..	32,699 14 0			
Balance ..	..	4,432 8 3			
Grand Total ..	..	37,132 6 3	Grand Total ..	..	37,132 6 3

Table VIII.

Miscellaneous Department.

Statement of assets and liabilities.

Assets.	—	—	Liabilities.	—	—
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Amount of receipts ..	10,135 1 9		Amount of expenditure ..	12,660 0 0	
Sundry debtors	6,736 8 4		Liabilities	710 0 1	
Stock of manufactured articles on the 31st March 1903.	3,547 4 8		Expenditure in connection with the Indian Art Exhibition.	8,520 8 5	
Stock of unfinished articles on the 31st March 1903.	825 0 0		Outstandings on the 31st March 1902.	1,806 14 11	
Stock of materials on the 31st March 1903.	772 0 0		Stock of manufactured articles on the 31st March 1902.	1,925 12 0	
Value of tools and plant on the 31st March 1903.	1,503 0 0		Stock of unfinished articles on the 31st March 1902.	1,152 12 6	
Liabilities of 1901–1902 paid during the year.	81 10 3		Stock of materials on the 31st March 1902.	345 13 3	
Total ..	..	23,600 9 0			
Balance ..	..	3,521 4 2			
Grand Total ..	..	27,121 13 2	Grand Total ..	..	27,121 13 2

Table IX.

Weaving Department,

Statement of assets and liabilities.

Assets.	—	—	Liabilities.	—	—
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Amount of receipts ..	4,174 7 9		Amount of expenditure ..	12,779 1 8	
Sundry debtors	71 9 6		Liabilities	154 4 4	
Stock of manufactured articles on the 31st March 1903.	1,011 0 0		Outstandings on the 31st March 1902.	1,036 10 7	
Stock of unfinished articles on the 31st March 1903	32 9 0		Stock of manufactured articles on the 31st March 1902.	523 8 0	
Stock of materials on the 31st March 1903.	300 10 0		Stock of unfinished articles on the 31st March 1902.	205 8 0	
Value of tools and plant on the 31st March 1903.	1,617 0 0		Stock of materials on the 31st March 1902.	1,084 8 9	
Liabilities of 1901–1902 paid during the year.	2,062 13 9				
Total ..	..	9,270 2 0			
Balance ..	..	6,513 7 4			
Grand Total ..	..	15,783 9 4	Grand Total ..	..	15,783 9 4

Table X.

Aluminium Department.

Statement of assets and liabilities for the year 1902–1903.

Assets.	Amount.	Total.	Liabilities.	Amount.	Total.
	Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
Receipts	..	1,65,374 1 5	Materials	1,54,650 5 1	
Sundry debtors	..	66,857 4 2	Wages of workmen ..	34,518 15 8	
Stock of manufactured articles on hand on the 31st March 1903	17,601 5 0		Tools and plant ..	20,244 8 9	2,24,001 0 8
			Establishment	8,643 7 11	
			Contingencies ..	5,943 11 3	
Stock of unfinished articles on hand on the 31st March 1903.	10,269 11 2	1,27,565 14 7	Advance	..	326 8 7
			Liabilities—		
			Establishment ..	709 9 9	
Stock of materials on hand on the 31st March 1903.	96,220 11 8		Wages of workmen ..	499 14 4	
			Pieceworkers ..	653 1 1	
Stock of manufactured articles with agents less 25 per cent.	3,474 2 9		Contractor for materials.	333 4 3	2,341 6 8
			Agents' expenses ..	93 7 0	
			Miscellaneous	52 2 3	
Amount of liabilities of previous years paid during the year.	..	15,080 10 11	Stock of articles on hand on the 31st March 1902.	..	1,22,831 0 10
Tools and plant 9,266 less 12½ per cent. + 20,244-8-9 (fresh).	..	28,352 4 9	Tools and plant on 31st March 1902 less 12½ per cent.	..	9,266 2 0
Blocks and paper for the new price list.	..	1,250 4 1	Outstandings on 31st March 1902.	..	42,611 4 9
			Bad debts	..	123 6 10
			Balance	..	2,979 9 7
	..	4,04,480 7 11		..	4,04,480 7 11

Table XI.

Receipts and Sales.

Departments.	Receipts.		Sales.	
	1901–1902.	1902–1903.	1901–1902.	1902–1903.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Woodwork department	7,095 3 10	11,118 0 3	8,738 15 5	20,689 3 9
Carpet-weaving ,, ...	1,369 0 6	3,208 14 0	1,181 4 0	3,135 8 0
Metal work ,, ...	9,421 10 6	4,500 9 7	9,813 10 4	8,801 1 4
Jeweller's work ,, ...	385 2 0	442 7 0	535 13 0	420 11 0
Modelling and Pottery department	4,539 1 1	1,699 11 3	2,730 14 10	1,758 3 11
Engraving department	15 6 0	158 10 6	14 2 0	188 1 6
Lacquer work, Drawing and Miscellaneous ..	611 8 3	124 13 5	388 0 9	1,273 13 4
Weaving	176 15 5	4,174 7 9	1,123 10 11	4,295 3 5
Total ..	23,613 15 1	25,427 9 9	24,556 7 3	40,561 14 3

Proceedings, Dis. No. 4527 of 1903.

Staff.—Mr. Chatterton remained in charge of the institution during the year but was absent from Madras for 78 days, which were spent partly on inspection duty and partly in visits to Delhi in connection with the Arts Exhibition. Early in the year the services of Mr. Brand, the Industrial Assistant, were transferred to the Punjab Government, and in his place two passed Engineer students of the College of Engineering were appointed on Rs. 150 each per mensem, and this arrangement is reported to have proved satisfactory.

2. *Accommodation.*—The school buildings were repaired during the year and owing to the abolition of the pottery department, the machinery of that department and the kiln were dismantled. In the space thus rendered available, the new machinery for the aluminium department was set up.

3. *Library and Museum.*—The library received an addition of 48 books and the museum of a few more glass cases. The Superintendent's remarks as regards the usefulness of the museum as a show-room are noted.

4. *Strength and Attendance.*—The strength declined slightly from 321 to 316. As usual the majority of the students are non-Brahman caste Hindus. The average daily attendance has not been given though it is stated that for the past two years it has been 75 per cent. Considering that it was 78 per cent. last year, there must have been a fall in it during the year under report. The classification of the pupils according to the occupation of their parents has not been furnished, but mention should have been made at least of the number belonging to the artisan classes. Eighty-five of the pupils against 78 in the previous year had passed a general education test. The elementary and special painting classes gained 16 pupils, while the three other drawing classes lost 21 pupils. There were 135 against 115 apprentices, the industries most largely resorted to being carpentry, metal work and lacquer work. The omission of all reference to the special evening classes should be explained. The Director is unable to endorse entirely Mr. Chatterton's suggestion to abolish the general education classes. Every apprentice should when he leaves the school have a knowledge of elementary arithmetic, and more especially of simple colloquial English, which will help considerably in enlarging the sphere of his practice in after life, and if the minimum educational qualifications to be insisted on prior to his admission into the school do not include such knowledge it is necessary that he should have the opportunity of acquiring it while undergoing his industrial training.

Does the Dir then mean to endorse it at all? MJ

5. *Examinations.*—In all 210 pupils appeared for the several drawing examinations and 125 of them passed against 395 entrants and 185 passes in the previous year. Thus, the numbers presented and passed were comparatively smaller, but the percentage of success rose from 47 to 60. For the five industrial examinations 137 candidates appeared and 78 passed, the corresponding figures for the previous year being 23 and 15, respectively. In this case the percentage fell from 65 to 57, but there was a considerable increase in the number that appeared and passed. The fall in the number of entrants for the drawing examination accompanied by a corresponding increase in the number that entered for the industrial examinations, is a satisfactory feature in the working of the school. Mr. Chatterton's explanation of this circumstance would appear to be correct and is supported by the fact stated in the next paragraph regarding the students who passed out from the school during the year. Information regarding the number of students that passed the Technical Teachers' certificate examinations has not been furnished this year also. It is observed that no students appeared for the examinations in carpet-weaving, but five appeared for and passed the examination in jeweller's work against none last year.

why? ~~what~~

6. *Former students.*—It is stated that of the fourteen students who completed their course all but two who had obtained employment as drawing masters are employed in the school workshops.

7. *Finance.*—Excluding the Aluminium department, the total amount of sales rose from Rs. 24,556 to Rs. 40,562 and this large increase is due to the large sales at the Delhi exhibition. The net expenditure of the year, taking the cost of the several departments of the school except the Aluminium department, was Rs. 33,991. The cost of the Art department, viz., Rs. 19,524, also includes the salaries of those of the industrial teachers whose salaries are paid from the budget of the School of Arts, 22, Education, and the stipends of the apprentices. The sales of the Aluminium department were Rs. 1,89,980 and the expenditure incurred during the current year was Rs. 2,24,001. From table 10 appended to the report it is observed that the industry worked at a profit of Rs. 2,980. It is stated that, owing to the reduction in the price of the raw material, the stock on hand had to be revalued and that this resulted in a sum of Rs. 10,000 being written off. But for this large reduction in the value of material, the profits of the year would stand at a very much higher figure.

But if they did, it would be a fictitious statement? Does Mr Stuart intend to suggest that the revaluation was incorrect or that no deductions should be made on acct of depreciation? MJ

8. *General.*—In paragraph 8 of the report Mr. Chatterton gives an account of the working during the year of the several industries. The work of the Aluminium department was of a more restricted character than in previous years, the execution of military orders in aluminium ware having been largely left to private agencies. The expansion of the industry is indicated by the figures showing the quantities of raw material used during the year, but some statistics might have been furnished to show

the extent to which aluminium vessels are purchased for domestic use in native households. It is hoped that, with the aid of the new machinery recently set up, cheaper and better articles will be produced and the metal as Mr. Chatterton anticipates, be firmly established in the confidence of the native public. When this is accomplished it will be possible to leave the industry entirely to private enterprise. Fuller information regarding the progress made in the preparation of the catalogue of Indian art work should have been furnished. The wood-carving and carpet-weaving departments did more work, but the same cannot be said of the metal-work and jeweller's work departments. Judging from the increase in the sales, fairly satisfactory work seems to have been done in the weaving department. It is noted with pleasure that at the Delhi Exhibition the school secured three silver medals, two bronze medals and two certificates of commendation.

9. The working of the school during the year was on the whole satisfactory. The changes that occurred were all in the way of improvement, and it is creditable to the members of the staff that the general progress of the institution was not affected by the large amount of additional work imposed on them on account of the Delhi Exhibition.

(A true extract)

(Signed) G. H. STUART,
Director of Public Instruction.

To the Superintendent, School of Arts.
" the Inspectors of Schools.
" the Inspector of Technical Schools.
" the Inspectresses of Girls' Schools.
" the Principals of Colleges.
" the Managers of Industrial Schools.
Copy to Government, with C.L.

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[E. 3]
1,000—5-13-02.

EDUCATIONAL DEPARTMENT.

Read again G.O., No. ..... , dated ..... 190 .

" " " " ..... , " ..... 190 .

Read also:—

C. No. 1175, From the D. P. I. , No. 5416 , dated 27th July 190 3.

" " ..... , " " ..... , " ..... , " ..... 190 .

" ..... , " " ..... , " ..... , " ..... 190 .

ORDER
P.S.

No. 396 , dated 22- 8- 1903.

The proposals for the reorganization of the School of Arts having been held in abeyance pending the orders of the Government of India on the report of the committee on industrial education, the school was worked during the year on the existing lines.

2. The number of students in the drawing classes was nearly the same as in the previous year but the number appearing for the several examinations in drawing and modelling was only 213 against 402 in 1901-1902. Both the Superintendent and the D.P.I. regard this as a satisfactory feature in the working of the school, but the reasons

for

for this opinion are not ~~at all clear~~ very apposite. If students are occupied in the study of drawing and if the teaching is efficient, ~~they ought to~~ appear for and pass the examinations held in that subject. ~~It~~ is to be regretted that the Director did not state his views on this subject with more precision, as the Government is not prepared to allow the arts section of the school to be ~~sacrificed entirely~~ subordinated to the industrial section. The percentage of success in the drawing examinations showed an improvement.

3. The number of students in the industrial classes rose, and there was also an advance in the number appearing for the industrial examinations. The opinion is expressed by the Superintendent that the majority of apprentices now in the school are learning their trade with a view to following it in after life. This opinion would have been entitled to more weight, if it had been shown that the apprentices belong to classes who are likely to keep to industrial pursuits; ~~but as to this there is no information.~~ The Superintendent should be careful, as far as possible, to encourage the entrance of these classes and to prevent the school stipends being utilized by persons who are unlikely to work as artizans after the end of their training.

18

4. The revised scale of fees sanctioned in G.O.,No.773 Educational, dated 21st December 1901, was in force throughout the twelve-month and resulted in a large increase in the amount realized from this source.

5. The Superintendent expresses the opinion that the classes in general education should be abolished and the Director apparently gives a qualified agreement, ~~though on this point also Mr.Stuart's views are not clearly stated~~. Before expressing any final opinion, His Excellency the Governor in Council wishes to receive a special report on this subject, showing the cost of the classes in general education, the nature of the instruction given, and the results, as shown by examinations.

6. A large number of exhibits was sent to the Darbar exhibition at Delhi, the Government having made a special grant of ₹.25,000 for the purpose. The success achieved by the School was not marked, but most of its productions were sold.

7. The information supplied by the Report is not sufficient to enable the Government to review ~~fully~~ the working of the Aluminium Department. The fact that the value of the manufactured stock had to be written down

by

by ₹.10,000 furnished presumptive evidence that it had been over-valued when first brought on the stock books, as the mere fact of a reduction in the price of raw metal would not alone have necessitated that step. The sanction of Government should have been obtained for writing off ₹.10,000 in the value of the stock in hand, and so large a sum as ₹.67,000 should not have been left outstanding; it is understood that the Superintendent has already taken steps to reduce this credit.

8. Mr.Chatterton conducted useful and interesting experiments to determine the value of aërmotors for irrigation purposes and in connection with liquid fuel. are noted with approval

P.T.T.
3-8-03.

A.T.P.
9-8-03.

A.G.C.
14-8-03.

To The D.G.I. despd 10/9/3

I cannot publish the report attached [illegible] & careful means included in Table IX? Probably it is not and it would appear as if W.C. showed 85 whole means basis. [illegible] It may be made to mean. It may be made to explain details.

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Statement with ditto.

1

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5

Shwe Yoe

N.B.—

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