

Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

Regd.

} 1913.

Enclosures

Spare copies

G.O. No. 725, 8th August 1913.

Technical Institute, Madura.

Passing further orders in regard to the reorganization of the — .

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GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

READ—the following papers :—

I

G.O. No. 647, Educational, dated 18th July 1912.

ABSTRACT.—Approving, with remarks, the proposals submitted by the Superintendent of Industrial Education for the reorganization of the Technical Institute, Madras.

II

Letter—from K. T. B. TRESSLER, Esq., Acting Superintendent of Industrial Education, Madras.
To—the Director of Public Instruction.
Dated—the 4th November 1912.
No.—1404-I.

With reference to Proceedings Ref. on C. No. 417 of 1911, dated 29th August 1912, communicating G.O. No. 647, Educational, dated 18th July 1912, I have the honour to submit the following remarks.

2. *Paragraph 2—Metal Works department.*—In accordance with the orders of Government the teaching of metal work has been eliminated from the scheme of instruction in the institute.

3. *Paragraph 3—Technical classes.*—In determining admissions to the technical classes the principles laid down by Government will be adhered to. It is proposed to levy fees equivalent to Rs. 5 per mensem in all classes; but it would appear desirable to fix the amount payable at so much per term or per year since monthly payments tend to lead to irregularity in attendance.

4. *Paragraphs 4 and 5—Weaving and Dyeing branches.*—The question of the future policy in the weaving and dyeing branches has been made the subject of a separate reference.

5. *Paragraph 6—Mechanical Engineering.*—Regarding the nature of the mechanical training to be provided, Mr. Chatterton does not appear to have made himself quite clear since the character of the instruction contemplated is entirely in accordance with the views expressed by Government. It is not intended to attempt anything beyond elementary teaching.

6. *Paragraph 7—Accommodation, etc., for pupils.*—In paragraph 7 Government state that whilst approving generally of Mr. Chatterton's proposals to grant stipends and rent-free accommodation they consider that for the present at least the pupils should be required to pay for their own board. After careful discussion with Mr. Chatterton I would venture to request Government to reconsider their decision on this point. The greatest difficulty all industrial school authorities have to contend against is the ingrained habit pupils have of running away long before they finish their course. The object of industrial education in this country is not to multiply the number of industrial workers but to improve the standard of work, and this object is entirely nullified if pupils run away as soon as they have attained such a level of mediocrity as will enable them to earn a living in the bazaar. Under existing conditions there appears to be no way of preventing them from so running away and my experience of industrial schools during the last 4½ years leads me to the inevitable conclusion that no material advance in industrial efficiency is to be hoped for unless pupils can

be bound down by agreement to complete a full apprenticeship. I am informed by competent legal authority that agreements of this kind cannot be enforced unless apprentices are clothed, housed and fed. As I possess no legal knowledge myself I do not know under what circumstances an apprentice's agreement is valid or not, but I would emphatically assert that unless the conditions for admission, at least in the weaving section, are such as to bind down pupils absolutely for the full period of their apprenticeship, the majority of these will run away when only half trained, and all the time and labour spent on their education will represent merely so much waste effort.

7. Personally I should feel inclined to say that a rigid system of apprenticeship is required in all the other branches of the school also, but as Mr. Chatterton's proposal only extends to weavers I will not press my amendment. Pupils in other trades belong as a rule to a higher class than weavers, but even so, I very much doubt if they will adequately realise the advantage of sacrificing the limited immediate benefit of earning on a bazaar scale for the sake of greater ultimate advantage, and I think it quite possible that the working of the institute will prove a regular apprenticeship to be indispensable in these trades also. This point may be left to the decision of time; meanwhile I am providing accommodation for only 90 pupils though, in anticipation of future developments in the direction mentioned, I have designed the hostel to accommodate ultimately double the number of pupils now provided for.

8. *Paragraph 10—Disposals of articles manufactured at the school.*—I venture to draw attention to the very serious disturbance in trade conditions, to say nothing of loss to Government that the proposed system of disposal must inevitably give rise to. It need hardly be pointed out that at compulsory auction sales the articles sold very rarely fetch their market value. Government for their part may be willing to face the loss accruing from this method of sale; at the same time the production of the institute will be considerable and the flooding of the local market with goods sold at "bargain prices" will depreciate prices all round to the obvious detriment of private trade. Accordingly sale by auction would appear to stultify the very object which Government apparently had in view in prescribing this system of disposal, viz., the safeguarding of local trade interests. In these circumstances I would request that the question of disposal be left open until experience has shown what would be the best line to follow.

9. *Paragraph 11.*—Building proposals are under preparation and will be submitted shortly.

III

Letter—from K. T. B. TRESSLER, Esq., Acting Superintendent of Industrial Education, Madras.
To—the Director of Public Instruction.
Dated—the 4th November 1912.
No.—1403-I.

With reference to paragraph 4 of G.O. No. 647, Educational, dated 18th July 1912, I have the honour to remark that the recent orders of the Secretary of State regarding the policy of the department have materially modified the situation.

2. Dresser sizing is essentially a commercial factory process. So long as this department was at liberty to deal with the sizing problem in a commercial manner and on a factory scale, conditions were all in favour of the introduction of machinery. Now however, on account of the restrictions imposed on departmental work, the utility of sizing machinery will be greatly reduced and it is doubtful if sufficient work could be found for the machine to keep it employed for more than a fraction of its time. In these altered circumstances it can scarcely be hoped that the machinery in the hands of the department will prove a commercial success and for this reason the introduction of dresser sizing at the present time would not appear to hold out much promise of practical result. It must be remembered that machine sizing represents a radical departure from country methods and its value can only be

demonstrated by commercial production. Such production is at present out of the question and I am therefore of opinion that the purchase of power-sizing machinery would not be justified, at any rate at the present time.

3. Whilst it is possible that the further experience to be gained from the working of the weaving institute at Madura (when opened) may cause this opinion to be modified later on, I certainly think that any immediate move in the direction of machine sizing would be premature and in this opinion Mr. Chatterton concurs. If my view is accepted the immediate necessity for a trained sizer falls away also.

4. As regards a weaving expert recruited from this country, I would venture to draw attention to the very unhappy results of our former experiment in this direction. With this appointment, however, it seems to me unnecessary to deal at the present time since I think that a suitable appointment can only be made when practical experience has shown exactly what line is to be followed. Until therefore the working of the Madura Institute has furnished some information on the above question, I would suggest that the connected question of the appointment of a weaving expert be allowed to lie over. On this point I had a lengthy consultation with Mr. Chatterton and he concurs in my views.

5. Meantime Dr. Marsden and my present weaving assistant are quite competent to deal with the weaving and sizing work which it would be possible or desirable to do at the present time. With the former I have arranged for the preparation of different kinds of sizes—more particularly such as can be prepared from materials easily procurable in India—and with the latter for the carrying out of experiments dealing with their application to yarns. Recommendations for the improvement of the pay of the weaving assistant were submitted some time back by Mr. Chatterton and a revised scale of Rs. 250—15—400 is suggested in connection with this proposal. The drum and pin winding machines mentioned in Professor Fox's note were some time ago procured for the Salem Factory and the experiments there carried out with this machinery will be continued. It is also proposed to procure such hand-sizing machinery as may appear desirable to make experiments therewith. Work of this kind will prepare the way for the introduction of regular power-sizing machinery later on.

6. A copy of Professor Fox's note is enclosed for information.

ENCLOSURE.

Letter—from Professor THOMAS WM. FOX, 15 Clarendon Crescent, Eccles, Manchester.

To—the Director-General of Stores, India Office.

Dated—the 10th June 1910.

No.—S. 6567.

In reply to your request that I should report upon a scheme for the improvement of the hand-weaving industry of Madras, I beg to submit the following:—

I hold the opinion that in India the hand loom may remain, for many years, a commercial weaving machine, provided that the industry is properly organised; that the loom is suited to the work to be done, and is supplied with properly prepared materials.

2. My reason for holding such an opinion is that, in this country, after the power loom had been in use for forty years, the number of hand looms increased by 5,000 during the following ten years. Even now, in the cotton section of the textile industry, we have a few hand looms in use, while in the linen and silk sections a much larger number are employed to manufacture linen, silk and mixed goods, although labour is so much more expensive here than in India.

3. In my opinion organisation is the first consideration, and is essential to any scheme for the resuscitation of the hand weaving industry. So much depends upon the suitable preparation of threads for weaving that the loom is of secondary importance. Properly prepared warps and wefts can only be procured from an establishment in which a plant for winding, warping, and sizing is installed. From such a centre the materials should be delivered to the weavers in a condition for use in the looms, for this would render each loom vastly more productive than at present. If, in addition, the fabrics produced by the weavers could be returned to the same establishment and distributed from there to the consumers, the conditions would be similar to those that obtained, and to a certain extent still obtain, in this country. On the continent of

Europe there are many such establishments in full operation. The person who supplies warp and weft also engages the weavers; the latter either work in hand-loom factories, or in their own homes. In some cases the employer is known as a manufacturer, in others as a commission weaver, and commission weaving is still in vogue even where power looms are solely employed.

4. With regard to the nature of the plant to be installed for preparing hanked yarns, of counts 50s and upwards, in short lengths of, say, 100 yards to 150 yards per warp, I know of nothing better than the plant suggested by Mr. Chatterton, namely, Drum winding, beam warping and dresser sizing. The last named machine leaves the warp coiled upon a loom beam, but before it can be woven it requires to be attached to the healds and reed. I would, therefore, suggest that, in order to render the scheme complete, drawing-in and twisting machines be added to the abovenamed list. In Mr. Chatterton's list I do not find any mention of preparing weft yarn for the loom, still, if such yarn is received in hanks, winding of some kind will be necessary, and a weft winding or "pin" machine might be installed with advantage. With such a plant a weaver could devote his whole time to the loom, instead of, as now, giving more than half his time to the preparation of his yarns.

5. Assuming an installation for preparing threads for weaving to be decided upon, it would not be necessary to purchase yarn in hanks, as is now customary. It would be more economical to purchase "twist cops" for warps and "pin cops" spun upon paper tubes for weft. The cost of reeling the threads into hanks would then be avoided for the former, and both reeling and winding would be unnecessary for the latter, for pin cops are ready to be placed in a shuttle without any treatment. This would lead to a further increase in the output of a loom, by reason of a pin cop containing a much greater length of yarn than a pirn, and a loom would be stopped less frequently for refilling the shuttle.

6. After careful consideration, I cannot see that anything will be gained by sizing warps here and sending them out to India to be woven, for this implies that something in the nature of an experiment is to be made. The scheme suggested is quite outside the range of an experiment, for the winding machine, the beam warper and the dressing machine have all been constantly employed, for upwards of a century, to treat precisely similar yarns to those suggested for trial. From the point of view of organisation such a trial would prove nothing, and, as previously stated, I am persuaded that success is impossible without organisation. Further, if a dressing machine is to be purchased it will be necessary to send with it a skilful sizer to teach the Indians how to mix and apply the size properly. In this country dressing has always been recognised as the most important work connected with the preparation of threads for weaving. If this machine is left in the hands of an inexperienced person, failure is certain to follow.

7. I notice in a report furnished by Mr. Chatterton that Mr. Dewal speaks of sizing yarns up to 60s, and possibly higher numbers, by the aid of a machine that any village carpenter can make, and no great technical skill will be required to master its working. For counts at all approaching the numbers given this is nonsense. Technical skill is necessary for the sizing of any kind of yarn, but especially so for fine yarns, and the village carpenter is not the man to construct a machine for applying size to the yarns named.

The scheme outlined above is a somewhat costly one, but since the aim is to resuscitate one of India's decaying industries the expense is, in my opinion, justified.

IV

Letter—from K. T. B. TRESSLER, Esq., Acting Superintendent of Industrial Education, Madras.

To—the Director of Public Instruction.

Dated—the 4th November 1912.

No.—1280-I.

* With reference to paragraph 5 of G.O. No. 647, Educational, dated 18th July 1912, I have the honour to state that as regards dyeing Dr. Marsden reports as follows:—

"There is no doubt that dyeing industry in Madura is in flourishing condition; the dye yards are extending and the business firms which supply the raw materials are taking advantage of the prospects and are appointing agents and opening branches here. With very few exceptions however the dyers themselves are only in a position to carry out the operations in connection with the methods of dyeing employed for many years past, or to follow instructions with respect to newer methods and dyestuffs supplied to them by the colour firms. The general standard of education is not high and, as is only to be expected, knowledge of the scientific subjects, especially chemistry, is non-existent. I do not imply by this that it is

necessary for a dyer to be a trained chemist, but draw attention to it to point out that there can be no real understanding of the processes and phenomena of dyeing unless some knowledge of chemistry and the nature of the materials in use is fairly disseminated."

2. "No matter how carefully a recipe may be followed, variations over which the dyer has no control are bound to arise, and to successfully deal with these and avoid loss, the dyer is in a much better position when he understands the 'rationale' of the process with which he is dealing."

3. "There is no doubt in my mind that real technical instruction should be provided and although it may be difficult to gauge the extent to which such instruction would at present be taken advantage of, the demand for it is certain to increase and with the general tendency among the dyeing community to keep their boys longer at school and give them a better general education, the prospects are bright that in time a technical training would be appreciated and prove of real benefit."

4. "I therefore suggest that arrangements be made in the new Technical Institute for instruction in dyeing and the necessary elementary science subjects. The question of industrial training does not arise in this branch, for instruction for labourers or foreman labourers is not necessary; all that is required is higher education for prospective works owners and managers, to place them in a position to understand the nature of the processes carried on in the works, and to keep in touch with and appreciate the value of developments in methods and dyestuffs."

5. "I would for the present restrict the instruction to the sons of dyers and those engaged in businesses connected with dyeing and would not recommend the admission of students who have no family connection with the trade, but who might think that, having taken the prescribed course, they would be able to earn a livelihood by its means. It is not to be expected, having no special knowledge of the intricacies of the trade and the many special customs prevailing therein, that they should be able to successfully found a business, and there is no demand in the dye-houses at present for responsible employes outside the range of family relationships. Any demand which may arise from the mills will at present also be so small that it can be neglected."

6. "By restricting the instruction at present to people directly interested in the trade, one ensures that it is imparted to those to whom it will be directly useful, but I must here clearly state that by direct usefulness I do not imply that it is possible in a school course to teach all that appertains to dyeing and turn out experienced dyers. What we can do, and all that may reasonably be expected is, that students shall be instructed among other things in the properties of the materials with which they deal, the effects upon the textile fibres of various influences, the laws governing the reactions between various forms of matter, and in general make clear to them the principles upon which the operations they carry out are based, so that they may be able to observe, to draw deductions from the observations made, and test the correctness of the deduction by rational experiments. It is on this account that a knowledge of elementary science and especially chemistry is essential, for without it no course of teaching in dyeing could have any real value or materially affect the present position."

7. "I note that in paragraph 3 of the Government Order the question of the restriction of the instruction to those able to profit by it, and the question of scholarships are dealt with."

8. "I am quite in agreement that in this case the granting of scholarships would serve no useful purpose, as also with the opinion that the restriction may interfere to some extent with the apparent initial success of the venture. I would be prepared for this, for it is to my mind of far greater importance that we get the people to realize the value of higher training even though it may be a slow process, than that we should waste energy upon material that would yield no return. I should feel that our work had been successful if, in a few years' time we could be assured that the dyeing industry had been influenced by the instruction given, that the members of the community had a wider interest in dyeing as carried out in other provinces and countries, and had been assisted in meeting the changing demands of

the times and were no longer dependent upon information supplied to them by travellers and agents of business firms, but were themselves in a position to take advantage of the large amount of published matter relating to dyeing in all its branches. The success of the industry in Madura may tend to give the people the idea that they are at the top of the tree in their special line and that they have little more to learn, but with an increase in knowledge, or a change in conditions, they would realize how much wider the subject is and how absolutely necessary a deeper knowledge will be if they are to retain the position to which they have attained."

9. No definite syllabus can be laid down, as the course provided will have to be suited to the general capacity of the students. "In this respect I would place the standard rather high and would suggest that intending students must have completed the high school course and possess the school-leaving certificate. They would then have had a fair grounding and could be expected to grasp the elementary portion of the course without difficulty, thus saving time on these subjects and leaving themselves more time for those which they may not so readily understand. I expect that in a short time when the requirements are understood, we shall have no difficulty and that the right type of student with the necessary qualifications will be available. As regards the age of admission I would put this at 17-18, unless with older men there were some guarantee of regular attendance. By taking students direct from school we should get them before the habit of regular attendance had been broken, and this is a point worth considering, for here after a boy has left school there appears to be a lengthy period during which he does little but waste time until he enters upon some regular occupation."

10. "It is difficult to decide upon the length of time which would be required to give the students a fair knowledge of the subjects mentioned above, for so much will depend upon their capacity for learning and understanding, and upon this would depend to some extent the apportionment of the time to be devoted to the various sections. A full course could be given which would take a couple of years to go through but I do not think that the time is ripe for that yet, and that it would be more advisable at present to treat the material in such a manner that the course is complete within one year, by selecting those portions which students should understand thoroughly and dealing fully with these, the other portions being treated in a less thorough manner but so that the student may be expected to remember and make use of the knowledge if necessary. In time it may be possible and desirable to go more fully into the preliminary scientific subjects, but at present it will be sufficient to deal with them only as an introduction to the subjects of dyestuffs and the technology of dyeing. I would suggest for this course that the year be divided into two terms (1) July—December, (2) January—April, and that the instruction be given daily (with the exception of Saturdays) for a period of four hours. In the early part of the course one-half the time might be devoted to class work and the other half to the elementary laboratory, but when the students were sufficiently advanced the lectures would last but one hour, and three hours would be spent in the laboratory. Extra time could on certain days be devoted to revision, although this could generally be seen to in the laboratory and the progress of the students tested whilst at work."

11. "Text-books relating to dyestuffs and dyeing are somewhat expensive and I doubt whether the students could be expected to purchase them. The subject will have to be taught therefore through the medium of lectures and laboratory exercises only, and to ensure sufficient attention being given to each student I would recommend that the admissions be limited to six or eight. Provision as regards space could be made for more from the outset so that, should we find that the conditions justify it, we could easily deal with an increased number."

12. "As regards fees, I would recommend that high school fees at least be

charged* but these would not be paid monthly but should be levied as a lump sum at the commencement of the course.

It is only to be expected that applications would be received from people who had misconceived the nature of the training and, having been accepted and finding that they were expected to study subjects the value

* (Say Rs. 60 per annum to make the fees uniform with those proposed for the Leather Trades school.)

of which they were incapable of realising, would cease to attend and thus defeat the objects of the school. It is on this account I suggest the fees should be paid at one time for the year and thus ensure that the students will not lightly consider the question of absenting themselves."

13. These proposals are summarized in the following prospectus:—

Technical instruction in dyeing will be provided at the Technical Institute, Madura.

(1) Instruction will ordinarily be confined to individuals already connected with the trade or such as have the means and the will to make subsequent provision for their own employment.

(2) Students will be expected to have completed their high school course and to possess a school-leaving certificate. They must enter upon their course immediately on leaving school or before they reach the age of nineteen unless they can guarantee regular attendance at the classes.

(3) The course to begin with will last for one year, each year being divided into terms corresponding to the academic terms. The session begins about July.

(4) The course will include instruction in elementary science, dyeing materials, technology of textile fibres and dyeing processes.

(5) At the end of their course students will receive a certificate of attendance. The fees for the course will be Rs. 60 *per annum* payable in advance.

Letter—from K. T. B. TRESSLER, Esq., Acting Superintendent of Industrial Education.

To—the Director of Public Instruction.

Dated—the 26th November 1912.

No.—1151-L.

2. As regards paragraph 2, I must explain that I proposed to put Mr. Subrahmanya Ayyar in charge of the peripatetic weaving party as I did not then think that there was any likelihood of his starting real work at Madura for another year or so. Even so, I still adhere to this view. The institution site is now under water and it will not be possible to put up temporary sheds of any kind until the dry weather sets in. Further though temporary arrangements may be all very well in some respects, they preclude any kind of organized work and the desultory work, which is all that could be attempted under temporary conditions, I could arrange to get adequately supervised without taking up the time that the weaving assistant could more profitably devote to other work.

3. Whether the proposals for temporary work at Madura are adhered to or not, therefore, I do not see any necessity for the weaving assistant's presence there for at least the next six months. During this period he will have obtained such experience of the peripatetic weaving party as will enable him to decide whether the experiment is worth continuing or not. Until then it seems to be unnecessary to consider any new appointment.

V

N. Ref. on Cur. No. 417/11, dated 5th December 1912.

Submitted to Government, with reference to G.O. No. 647, Educational, dated 18th July 1912, together with extracts from the Superintendent's letter No. 1151-L, dated 26th November 1912.

A. G. BOURNE,
Director of Public Instruction.

Order—No. 725, Educational, dated 8th August 1913.

In the Proceedings read above the Government, while accepting generally the proposals for the reorganization of the Technical Institute at Madura formulated by Mr. Chatterton, indicated certain modifications in the scheme, which they desired should be considered. In his letters forwarded with the endorsement of the Director of Public Instruction read above, the Superintendent of Industrial Education submits his remarks upon these points.

2. In paragraph 3 of the first of his letters Mr. Tressler suggests that a fee equivalent to Rs. 5 per mensem may be fixed for the admission of pupils to the technical classes and that this fee should be payable in advance by the term or by the year. The Government approve of this proposal.

3. For the reasons given in Mr. Tressler's second letter No. 1403-L, dated 4th November 1912, the Government accept his recommendation that action should for the present be deferred in regard to the recruitment in Europe of a trained sizer and an expert weaver. In view of the tentative character of the arrangement proposed for the weaving classes, the Government do not consider that any fixed scale of pay can at present be sanctioned for the weaving assistant.

4. As regards instruction in dyeing, the Government approve the recommendations of Dr. Marsden for opening a class for the purpose, which are summarized in paragraph 13 of Mr. Tressler's third letter No. 1280-L, dated 4th November 1912.

5. In the light of the explanation offered in paragraph 5 of Mr. Tressler's first letter, the Government accept the proposals for instruction in mechanical engineering in the institute contained in paragraph 21 of Mr. Chatterton's letter No. 96-G, dated 26th April 1911.

6. In paragraph 7 of G.O. No. 647, Educational, dated 18th July 1912, which dealt with the organization of the industrial classes, the Government approved Mr. Chatterton's proposals to grant stipends and rent-free accommodation to pupils, but not his suggestion that they should be provided with free board. Mr. Tressler in paragraphs 6 and 7 of his first letter requests a reconsideration of this decision and suggests that all pupils should be boarded in order that they may be legally required to execute agreements under the Apprentices Act to serve a full apprenticeship. The Government realize the importance of encouraging pupils to persevere with their training until this is properly completed but are disinclined to apply the Apprentices Act. Mr. Tressler will be requested to suggest some other method of meeting the difficulty. In this connection his attention will be drawn to the rules in force for apprentices in the railway workshops at Perambur.

7. In regard to the method of disposal of the articles manufactured at the Technical Institute, the Government are ready to leave the question open until experience has shown which is the best line to follow.

(True Extract.)

W. FRANCOIS,
Ag. Secretary to Government.

To the Director of Public Instruction.
" Revenue Department.
" Public Works Department.
" Financial Department, with copy of notes.

EDUCATIONAL DEPARTMENT.

NOTES CONNECTED WITH G.O. No. 725, EDUCATIONAL,
DATED 8TH AUGUST 1913.

[SUBJECT. — *Madura Technical Institute.*]

*From the Director of Public Instruction, dated 5th December 1912,
No. 417-11.*

Please see G.O. No. 647, Educational, dated 18th July 1912, and the notes therewith. The Superintendent of Industrial Education has submitted his remarks with reference to the several points noted therein, except that relating to buildings.* Such of his observations as require orders are dealt with below.

2. *Paragraph 3 of the order.* — In this paragraph the Government, while observing that the technical classes in the institute should be open to all sections of the community, admission however being confined to those who possess a sufficient knowledge of English and who have the means and the will to make subsequent provision for their own employment, directed that fees should be levied from such students. Mr. Tressler accepts the principles laid down by the Government in regard to admissions and proposes to levy fees at the rate of Rs. 5 per mensem, payable in advance per term or per year. The rate proposed is the same as that suggested originally by Mr. Chatterton and that adopted in the case of the leather trade school and may be approved. The fees are to be made payable in advance to avoid irregularity in attendance. Perhaps payment of the

fees in lump for the whole term may be felt as a hardship. Such proposal has however been approved in the case of the leather trade school. Except in colleges, lump payment for a term is not insisted on, but term fees are distributed in instalments over a number of months in the term. A similar course may perhaps be adopted here, if monthly fees are not to be levied. Four instalments at Rs. 8 each in the first term and four instalments at Rs. 7 each in the second term may perhaps do for the purpose.

3. *Paragraph 4.* — In this paragraph the Government agreed with Mr. Chatterton that it was necessary to secure the services of a European expert for the weaving department, but in view of the fact that in the matter of weaving the most important problem for solution was the possibility of improving the indigenous methods of sizing, they observed that if the scientific English weaver was not also an experienced sizer the wiser course would be to import a sizer from England and to engage an expert weaver in India. The Superintendent of Industrial Education was accordingly requested to report his considered views on the question, and also to submit a copy of the note by Professor Fox of Manchester on the subject of sizing, the experiments outlined in which were recommended for adoption.

4. Mr. Tressler's report is contained in his letter No. 1403-L, dated 14th November 1912, on pages 2 and 3 of current file and Professor Fox's note on pages 3 and 4. Besides other experiments recommended by him, Professor Fox's opinion is that the first requisite for any scheme for the resuscitation of the hand-weaving industry is a central organization with an installation of plant for winding, warping and sizing which would deliver threads to the weaver in a condition fit for use in the looms. With such materials it was expected that the weaver could devote his whole time to the loom

instead of, as now, giving more than half his time to the preparation of his yarns. Paragraph 17, page 19 of G.O. No. 647, Educational, dated 18th July 1912.

Apparently following this, Mr. Chatterton suggested that the sizing machine could, if successful, be also used to supply warps to weavers in the town of Madura. Mr. Tressler has now consulted Mr. Chatterton and they both consider that, inasmuch as the Government cannot now deal with the sizing problem in a *commercial* manner and on a *factory* scale, and as consequently sufficient work could not be found for the machine to keep it employed for more than a fraction of its time, the introduction of dresser sizing, or machinery for sizing, is not justified at present and that, therefore, the importation of a trained sizer from Europe is not also necessary.

5. As regards the weaving expert, Mr. Tressler states that such an expert is not at present required, that a suitable appointment can only be made when practical experience has shown exactly what line is to be followed, and that until the working of the institute has furnished some information on this point the question of appointing a weaving expert may lie over.

Mr. Tressler further states that Dr. Marsden and his weaving assistant, Mr. N. Subrahmanya Ayyar, are quite competent to deal with the weaving and sizing work which it would be possible or desirable to do at the present time, and that he has arranged with Dr. Marsden to prepare different kinds of sizes with materials easily procurable in India.

In the circumstances now represented by Mr. Tressler, his recommendations to defer action for the present in importing a sizer and expert weaver from Europe may, it is submitted, be accepted.

L. DAVIDSON.

6. In connection with this proposal Mr. Tressler recommends that the pay of the weaving assistant may be fixed at Rupees 250—15—400. In his letter No. 1246, Judicial, dated 15th August 1912, Mr.

Tressler strongly recommended that Mr. Subrahmanya Ayyar, the weaving assistant should be made permanent on Rs. 200—10—300; and in G.O. No. 938, Educational, dated 28th October 1912, the Government deferred the consideration of the question until the submission of proposals for the appointment of a weaving expert for the Madura Institute and for the organization of the peripatetic instruction party. The latter proposals have since been received and are now under consideration in Financial. A pay of Rs. 200 is proposed therein for Mr. Subrahmanya Ayyar in that connection. It is doubtful whether any final orders regarding his pay can be passed at the present stage. Unless a permanent appointment is created there seems to be no chance of doing this. Neither of the proposals awaited provides for any permanent arrangement. The peripatetic party is to be created temporarily for a year. The arrangements for the Madura Institute are also of a tentative character. Obviously the temporary post of weaving assistant now attached to the Superintendent's office will be abrogated with the opening of the weaving section in the institute. It seems therefore sufficient if the pay of Mr. Subrahmanya Ayyar as weaving assistant at the institute is now fixed. Mr. Chatterton originally proposed a pay of Rs. 200 for an assistant under two experts; but without any experts at present the responsibility of the assistant should be greater. It is for consideration what pay should be fixed.

Page 24 of G.O. No. 647, Educational, dated 18th July 1912.

No scale can now be fixed; this is Mr. Tressler's own view as stated in his No. 115-1-L, dated 26th November 1912, at page 7 of the current file.

L. DAVIDSON.

7. Paragraph 5.—In this paragraph the Government desired to have the opinion of Dr. Marsden as to whether there was an opening at Madura for a dyeing class and called for detailed proposals if he considered there was such an opening. Mr. Marsden's report is embodied in Mr. Tressler's letter No. 1280-L, dated 4th November 1912, on pages 4 to 7 of the current file. Dr. Marsden has no doubt that real technical instruction in dyeing should be provided in Madura. Although it may be difficult to gauge the extent

to which such instruction would at present be taken advantage of, Dr. Marsden is certain that the demand for it would increase; that in view of the general tendency of the dyeing community in Madura to give their boys better general education, the prospects of the dyeing class are bright and that in time technical training in dyeing would be appreciated and prove of real benefit. It may be noted that Dr. Marsden has already opened a dyeing class in Madura and his progress report on the working of the class, is not discouraging. Dr. Marsden's detailed proposals in regard to the class are as follows:—

- (i) *Admission*—to be restricted to individuals connected with the trade at present or have prospects of such and to be from students with high school course or school-leaving certificate and ordinarily below the age of nineteen.
- (ii) *fee*—Rs. 60 per annum payable in advance.
- (iii) *course*—one year.
- (iv) *instruction*—includes elementary science, dyeing materials, technology of textile fibres and dyeing processes.

8. The reasons in support of these proposals are fully explained by Dr. Marsden and the recommendations follow generally the lines laid down by Government in their order. The proposals seem to be well-considered and may be approved. As admission

* Six or eight.

L. DAVIDSON.

9. Paragraph 7.—In this paragraph the Government dealt with organisation of the industrial classes. They approved Mr. Chatterton's proposals to grant stipends and rent-free accommodation to pupils of the class, but not the proposal to provide them with food and stated that for the present at least they should be required to pay for their own board. Mr. Tressler requests a reconsideration of this decision. Please see paragraphs 6 and 7 of his letter No. 1404-L, dated 4th November 1912, on pages 1 and 2 of the current file. He lays great stress on the necessity of preventing the pupils of the industrial class from running away in the middle of their training and states that this cannot be effected unless the pupils are bound by an agreement for full apprenticeship under the Apprentices Act, for which purpose they should be clothed, housed and fed. Mr. Tressler further states that from his experience of industrial schools during the last 4½ years he would emphatically assert that unless the conditions for admission, at least in the weaving section, are such as to bind down pupils absolutely for the full period of their apprenticeship, the majority of them will run away when only half trained and that all the time and labour spent on their education will be merely wasted. It is now for consideration whether the Government will re-consider their decision.

I hope so.

L. DAVIDSON.

For previous discussions on this point, please see paragraph 6 of Mr. Chatterton's letter, dated 26th April 1911, on pages 13 and 14 of G.O. No. 647, Educational, dated 18th July 1912, paragraph 4 of the Secretary's note, dated 24th July 1911, on page 23 of the notes therewith, paragraph 6 of His Excellency Sir Murray Hammick's note, dated 28th February 1912, on page 37 *ibid* and the Hon'ble Mr. Sivaswami Ayyar's note, dated 15th August 1912, on page 41 of the notes, the latter having expressed himself against the expediency of rendering the provisions of the Act applicable to the students of the institute. It will be seen from these that Mr. Chatterton proposed hostel accommodation as an alternative to the application of the Apprentices Act. Sir Murray Hammick would in the beginning only offer stipends and rent-free accommodation. The hostel charges for 175 students were estimated at Rs. 10,500. Mr. Tressler proposes to start with only 90 pupils. It is not known what the charges of clothing will come to if the Apprentice Act is to be applied. In the case of the contemplated industrial school in North Madras a proposal to provide hostel accommodation has been made. It has now to be decided (i) whether the Act should be applied, or (ii)

Page 24 of G.O. No. 647, Educational, dated 18th July 1912.

It is not known what the charges of clothing will come to if the Apprentice Act is to be applied. In the case of the contemplated industrial school in North Madras a proposal to provide hostel accommodation has been made. It has now to be decided (i) whether the Act should be applied, or (ii)

whether in the alternative hostel accommodation should be provided, or (iii) the existing orders of providing facilities only in regard to lodging should be adhered to. Mr. Tressler has apparently no faith that the last will be sufficient inducement at all.

10. Paragraph 10.—In this paragraph the Government stated that the finished products worked up in the industrial classes should be disposed of by auction. Page 35 of G.O. No. 647, Educational, dated 18th July 1912.

In paragraph 8 of his letter on page 2 of current file, Mr. Tressler draws attention to the serious disturbance in trade conditions which this decision will give rise to and requests that the question of disposal of the manufactured articles may be left open until experience has shown what would be the best line to follow. There seems to be some force in Mr. Tressler's argument against sales by auction that they may prove detrimental to trade interests. Mr.

Chatterton first proposed the offer of the products to local traders. The Secretary suggested a combination of this with the auction system. Please see paragraph 6 of the Secretary's note on page 23 of the notes with G.O. No. 647, Educational, dated 18th July 1912. His Excellency approved the auction system. There seems to be no objection to leave the question in abeyance for the present.

Paragraph 7, page 37 of notes with the Government Order.

T. KANAKASUNDARA PILLAI—1-2-13.

C. RAMANUJA ACHARI—1-2-13.

This case has taken nearly two months to reach me and comes in manuscript, though it is obvious that the papers must be printed before circulation to His Excellency and though during December and January the file must have been lying on someone's table for weeks together, in which the process of printing could—and should—have been put through.

Please print at once now.

L. DAVIDSON—4-2-13.

The papers have been printed and the file is resubmitted.

T. KANAKASUNDARA PILLAI—22-2-13.

C. RAMANUJA ACHARI—22-2-13.

Paragraph 3 of Mr. Tressler's letter, dated 4th November 1912, No. 1404.—I agree that terminal or annual fees will promote regularity of attendance. In the technical classes only those students are wanted who really mean business.

2. Paragraph 5 of Mr. Tressler's letter, dated 4th November 1912, No. 1404.—As to mechanical engineering Mr. Tressler is, I submit, quite right. It is not possible to give even elementary training without specimens of the machinery had in view, and extensive though the equipment detailed in paragraph 21 of Mr. Chatterton's letter at pages 20-21 of G.O. No. 647, Educational, dated 18th July 1912, may appear, it is not easy to say that any item can and should be eliminated. The distinction between elementary and advanced training should, I take it, be somewhat on the following lines: the elementary student will learn how to use and execute simple repairs to the machinery commonly in use; the advanced student will in addition study the theory of each machine, learn how it is made and how to carry out extensive repairs. But the elementary student must have at least one specimen of each common type of machinery. This aspect of the case was not, I think, sufficiently grasped, when paragraph 6 of G.O. No. 647, Educational, dated 18th July 1912, was drafted from His Excellency Sir Murray Hammick's notes and accepted by all members of Government.

3. Paragraphs 6 and 7 of Mr. Tressler's letter, dated 4th November 1912, No. 1404.—This is substantially in accord with the Secretary's notes (pages 23 and 40 of notes) and he ventures strongly to

support Mr. Tressler's plea for reconsideration. Even if the Apprentices Act, 1850, be not applied, there will be a far stronger hold over the boys if they are boarded and clothed as well as lodged.

4. Paragraph 8 of Mr. Tressler's letter, dated 4th November 1912, No. 1404.—The Secretary would again urge that the disposal of manufactured articles be dealt with—

(a) by offer to the local traders at a fair price, and

(b) failing acceptance, by auction (*vide* paragraph 6 of his note at page 23 of G.O. No. 647, Educational, dated 18th July 1912).

5. As to weaving, the joint opinion of Messrs. Tressler and Chatterton must, it is thought, be accepted. These are set out in the second letter, No. 1403 at pages 2 to 4 of the current file.

6. With regard to dyeing, which is dealt with in the third letter, No. 1280, we must also, it is submitted, follow the lines of our expert's advice.

L. DAVIDSON—2-3-13.

Please print this addition and resubmit in proof. There are not sufficient data for financial scrutiny at present, but His Excellency and Honourable Members should see at once. Financial may examine when we have also data as to buildings.

L. DAVIDSON—2-3-13.

The notes have been printed and the file is resubmitted.

T. KANAKASUNDARA PILLAI—15-3-13.

C. RAMANUJA ACHARI—15-3-13.

L. DAVIDSON—17-3-13.

P[ENTLAND]—29-3-13.

(This has * taken a long time to reach me.) I believe that the product of the college at Leeds is sold periodically by auction and I cannot see any serious objection to that method. In any case before cancelling existing orders I would consult the private manufacturers who are likely to be affected.

2. Similarly I would for the present maintain the decision against giving free board or applying the Apprentices Act until we see whether the evils anticipated do actually happen.

H. A. S[TUART]—17-4-13.

I agree with the Hon'ble Sir Harold Stuart.

P. S. S[IVASWAMI AYYAR]—21-4-13.

I agree, subject to the note in the margin above.

2. My Honourable Colleagues have not dealt with paragraph 2 of Mr. Davidson's note on page 5. I don't think the Government understood that Mr. Chatterton had in view only elementary training, when he made the recommendations contained in paragraph 21 of his report cited by Mr. Davidson. Those recommendations involve the purchase of a large amount of machinery. I am strongly in favour of training men in the use and management of such types of machinery as are in ordinary use for agricultural and industrial purposes in Southern India; and I would therefore accept the position that the training proposed by Mr. Chatterton if within the meaning of the term "elementary," as used in G.O. No. 647, Educational, dated 18th July 1912. We should of course have definite proposals from Mr. Tressler for the purchase of such machinery as he considers necessary.

J. N. A[TKINSON]—24-4-13.

This case was discussed in Council on Friday the 9th May, and it was agreed—

(a) that the proposals made for "elementary" mechanical engineering might be accepted in the light of Mr. Tressler's explanation;

(b) that the disposal of the manufactured articles [which are not yet in existence] might be "left open until experience has shown what is the best line to follow".

As to the provision of board and clothing and the application of the Apprentices Act, 1850, no decision was arrived at (i) because the cost involved was not known, (ii) because doubt was entertained as to the wisdom of having recourse to a somewhat antiquated Act.

I have now examined the question of cost and find that Mr. Chatterton proposed ultimately to board 134 boys, viz.,

One hundred weavers at 20 admissions in each of five years.

Thirty-four mechanical engineers, viz., 10 admissions for each of three years and 2 selected boys for each of two years more.

The estimated cost of board and clothing was Rs. 5 per mensem or for these 134, a *maximum* as under :—

	Per annum.
	RS.
(i) One hundred weavers at	6,000
(ii) Thirty-four mechanical engineers	2,040
	—
	8,040
	—

Government originally struck out the mechanical engineers but they will now come back, unless the apprentice system is confined to weavers as Mr. Tressler suggests—not because he wishes so to restrict but because he is uncertain whether Government will permit the revival of Mr. Chatterton's proposals for mechanical engineering students (as at paragraph 21 of his letter in G.O. No. 647, Educational, dated 18th July 1912).

Mr. Tressler himself proposes to board 90 boys at first and ultimately double that number. Supposing the supply to come up to the maximum accommodation, this would cost from Rs. 5,400 to Rs. 10,800 at the end of five years—but in the first year only one-fifth of Rs. 10,800 or Rs. 2,160.

Mentioned in Council on 12th May 1913

His Excellency wishes to examine the actual working of the Apprentices Act in the case of private employers.

Sir Harold Stuart apparently does not consider the financial cost of the apprentice system a serious obstacle.

If His Excellency finds that the Apprentices Act does not give just cause for complaint, orders will issue approving the system for weavers at Madura.

Print up and submit to His Excellency.

L. DAVIDSON—12-5-13.

Demi-official—from C. B. COTTERELL, Esq., I.C.S., Private Secretary to His Excellency the Governor.

To—the Secretary to Government, Educational Department.

Dated—Ootacamund, the 30th July 1913.

No.—2141-1.

I am returning the file containing Maraden's report on dyeing in Madura, and also the file containing Tressler's proposals regarding the Madura Technical Institute. In connection with the latter, under His Excellency's instructions, I wrote to Mr. Boyson, Mr. Stanes and

Mr. Anderson, asking their experience of the Apprentices Act. I have attached the correspondence to the file. You will see that the Act is not in use in any of the three works, and it would seem doubtful, in the opinion of those consulted, whether it could with advantage be introduced there. Under the circumstances His Excellency is not inclined to have the Act applied to the Technical Institute without further consideration, but would be very glad if you could offer any suggestion for a solution; possibly rules could be framed for the apprentices more or less on the lines of those laid down by the Madras and Southern Mahratta Railway for their workshops.

Demi-official—from J. A. BOYSON, Esq., Madras.

To—C. B. COTTERELL, Esq., Private Secretary to His Excellency the Governor.

Dated—Madras, the 4th June 1913.

I am in receipt of your letter of the 31st ultimo. The mills do not run their apprentices under the provisions of the Apprentices Act. In fact we don't know the Act, what is the year? Their system is purely voluntary and there is no compulsion whatever. An applicant when taken on is shown the rules as to hours of attendance, etc., which he undertakes to abide by. If he fails or proves unsatisfactory in other respects, the company can give him a month's notice. He, on the other hand, can give the same notice if he is dissatisfied or can find more remunerative work elsewhere. I don't think any other system which involved obligations would suit the mills and I think any element of compulsion would be resented by intending apprentices. Our experience has been varied, a good many have left to better themselves before the expiration of the five years. A few have completed the period. We have now on the covenanted staff of the mills two Eurasians who did their full time. As they were keen and shaped well, the mill companies sent them to England to complete their educational course in an English workshop allowing them £5 a month. They were 18 months over this and after the first month, when their qualifications had been ascertained, they received £1 a week wages for their services. On return from England they were put on the usual agreements. There are now two Brahmin apprentices at the mills, one 4½ and the other 2½ years' service, who have turned out well and will be similarly treated if they express a desire to go to England and are not prohibited by caste prejudices. They were introduced to His Excellency when he went round the Buckingham Mill. Nearly all applicants have had some preliminary training as fitters and get Rs. 15/20 a month when they start their apprenticeship. The two above-mentioned Brahmins are getting Rs. 60 and Rs. 35 a month respectively at present. I don't know the details of the Madura institute's reorganized scheme, but I suppose there is some system of pay in the shape of scholarships for the pupils services. I should think any element of compulsion would be undesirable and would not work.

Demi-official—from F. J. STANES, Esq., T. STANES & Co. (Limited), Coimbatore.

To—the Private Secretary to His Excellency the Governor.

Dated—Coimbatore, the 5th June 1913.

I beg to acknowledge receipt of your letter addressed to Mr. R. Stanes, dated the 31st ultimo, in reference to His Excellency's enquiry regarding the Apprentices Act.

Mr. R. Stanes is at present in England, and is therefore unable to reply personally; I have however made enquiries, but as far as I can ascertain the Apprentices Act has never been at work in the Coimbatore mills, and therefore I am unable to ascertain whether it is effective, and I am sorry I cannot obtain any information to be of assistance in the matter.

I also have to acknowledge with thanks receipt of your telegram conveying to Mr. R. Stanes His Excellency's congratulations on the honour conferred on him. I am passing the same on to Mr. R. Stanes in England who no doubt will reply in due course to His Excellency.

Demi-official—from A. R. ANDERSON, Esq., Rayapuram.

To—the Private Secretary to His Excellency the Governor.

Dated—the 17th June 1913.

With reference to your letter of 31st ultimo, I find that the Apprentices Act is not in force in our Perambur Workshops. We only apply our own rules for apprentices. I enclose a copy of these for your information.

ENCLOSURE.

Circular No. 11 (D) of the Madras and Southern Mahratta Railway Company, Limited.

APPRENTICES.

1. European, Eurasian and Native apprentices employed in the Company's workshops will be graded as under:—

		Scale of daily pay in annas.
Special class ..	Europeans	20, 24, 28, 32, and 36
Class (A) ..	Europeans and Eurasians ..	12, 15, 18, 21, and 24
Class (B) ..	Eurasians, Parsees and Goanese (English-speaking) ..	6, 8, 10, 12, 14, and 16
Class (C) ..	Natives, including Hindus and Muhammadans, also non-English-speaking Parsees and Goanese	2, 3, 4, 5, 6, 7, 8, and 9

2. Every apprentice will be required to attain the maximum rate of his scale and the age of 21, and serve for five years before he can be considered to have completed the term of apprenticeship entitling him to a certificate.

3. The minimum age for a European and Eurasian apprentice will be 16 years, for an apprentice in class (B) 15 years, and for an apprentice in class (C) 14 years.

4. No apprentice in the special class will be employed without the written sanction of the Locomotive Superintendent. Apprentices in classes A, B and C will be engaged up to the sanctions, by the locomotive works manager.

5. Apprentices of any age in the special class and in class (A) will start on the minimum fixed. Apprentices in class (B) will start on annas 6 if of 15 years of age, and may be started on annas 8 if above this age.

Apprentices in class (C) in the Perambūr workshops will start on the minimum fixed if of 14 years of age, but if above this age may be started on annas 3. Lads who start work when under 16 years of age will, for the last two years of their apprenticeship, receive the maximum of their scale. The maximum pay for Native apprentices in these shops will be annas 7 per diem.

Apprentices in class C in the Hubli workshops will start on annas 3 if of 14 years of age, and may be started on annas 4 if of 15 years of age, and on annas 5 if above 16. The maximum pay for Native apprentices in these shops will be annas 9 per diem.

6. Increments will usually be given annually, provided that the lads concerned are reported upon favourably by their respective foremen.

7. Preferences will be given to sons of the company's employees; also to such lads whose parents or guardians are *bona fide* Natives of the districts through which the railway traverses.

8. No indentures will be given to apprentices except to those in the special class, and no fees will be taken.

9. Apprentices will be treated in exactly the same manner as other men in the workshops in respect of fines, dismissals, etc., and will, when required, be put on piece-work and paid accordingly.

As to the Apprentices Act, His Excellency directs that its employment be negatived and that Mr. Tressler be asked what alternatives he would suggest.

Draft now on the whole current, please.

W. FRANCIS—1-8-13.

A draft order is submitted for approval. If approved, it is for orders whether it may be forwarded to Financial for acceptance, in view of the approval to the opening of the dyeing class.

Approved.

W. FRANCIS—16-8-13.

B. GOPALA ACHARI—4-8-13.

C. RAMANUJA ACHARI—5-8-13.

But this won't occasion any new expenditure, will it?

W. FRANCIS—6-8-13.

Mr. Marsden, the dyeing expert on Rs. 750, was first appointed for a term of two years which expired on 25th March 1915. His engagement has been extended for a further period of three years, *i.e.*, till 25th March 1916. In paragraph 4 of the draft order it is proposed to sanction the dyeing class permanently. This involves the * permanent retention of Dr. Marsden. He may require an assistant, and Mr. Chatterton proposed an assistant on Rs. 100. In the statement of recurring expenditure separately submitted by Mr. Tressler, a salary of Rs. 105—15—215 is proposed for the dyeing assistant, and a footnote is added to that statement to the effect that the above figure represents only "future expenditure contemplated." In these circumstances it seems desirable that Financial should see the papers at this stage.

G.O. No. 168, Educational, dated 21st February 1913.

* Besides non-recurring expenditure as in the shape of plant, etc.—page 22 of G.O. No. 647, dated 18th July 1912.

Vide statement at foot of page 24 of G.O. No. 647, Educational, dated 18th July 1912.

B. GOPALA ACHARI—6-8-13.

C. RAMANUJA ACHARI—6-8-13.

The dyeing class has not been sanctioned permanently; it will consist of half a dozen boys at the most, I expect; so no assistant should be necessary; Dr. Marsden has already a laboratory equipped and should not want any more materials because of this class.

I really don't see that financial need be troubled.

W. FRANCIS—7-8-13.

[G.O. No. 725, Educational, dated 8th August 1913.]



GOVERNMENT HOUSE,
OOTACAMUND.

27th April 1913.



My dear Davidson,

His Excellency has asked me to send you back the enclosed file about Madura Technical Institute and to ask you kindly to bring it with you when you see His Excellency at 12-30 p.m. on Tuesday next.

Yours sincerely,

C. B. Pinn

The Hon'ble Mr. L. Davidson, C.S.I., I.C.S.,

Ag. Secretary to Government,

Educational Department,

Stonehouse Hill, Ootacamund.

*Superseded, I presume, by P.S.S. C.B.
since recd. Telephone. Keep the case in me to be taken
to H.E. to Ed. on Tuesday 6th May 28/4/13*

done since

[I have removed the linked file
order that it may be separately put
together with B. Rowden's next quarter
report; a continuous record of his work
is desirable] 12

This case was discussed in Council
Friday night May, & it was agreed
a) that the proposals made for
"elementary" mechanical engineering
might be accepted in the light of
b) Rowden's explanation

(b) that the disposal of the manuscript
articles [which are not yet in section
might be] left open until experience
"shows what is the best line to follow"

As to the provision of board &
^{clothing} ~~lodging~~ the application of the appeal
Feb, 1880, no decision was arrived
at (i) because the circumstances were
not known (ii) because doubt was ex-
-pressed as to the wisdom of having recourse
to a somewhat antiquated Act.

I have now examined the question
of cost. I find that W. Chatterton
proposed to board ultimately 13
boys. viz.,

100 weeks @ 20 admissions in

of furgers
34 mechanical engineers viz
10 commissions for each of three years
and 2 selected boys for each of two
years more.

The estimated cost of board
do they are Rs. 5 per man per month
here 134 — a maximum as under:—

(i) 100 weavers @ Rs. 6000 p.a.
(ii) 34 mech. engines Rs. 2040
= Rs. 8040

Govt originally struck at the
mechanical engineers but they will
not come back, unless the apprentice-
system is confined to weavers as Mr.
Mansel suggests — not because he was
so distressed but because he is unable
whether Govt will permit the revocation of
Mr. Chatterton's proposals for mechanical
engineering students (as at para 21 of his
letter in P.O. 647 Vol. 4. (18.7.12)

Mr. Mansel himself proposes to
board 90 boys at first & estimate the
that number. This est. cost from Rs.
5,400 to Rs. 10,800 at the end of
years — but in the first year only
fifth of Rs. 10,800 or Rs. 2,160.

Ld.
12.5.13

Supposing the supply to
come up to the maximum
accommodation,

Mech. students
recurring Rs. 81,618
non-recurring 2,28,000
D

Mentioned in Council on 12.5.13

His Excellency wishes to examine the actual working of the apprentices bet in the case of private employers.

Mr H. R. Stuart apparently does not consider the financial cost of the apprentices system a serious obstacle.

If H. R. Stuart finds that the apprentices bet does not give just cause for complaint, orders will issue approving the system for workers & traders.

Reinstated *
Submitted to H.R.

- Ld.
12.5.13

...the Apprentices Act.
I understand that this Act is in operation in the
...to ask you to be kind enough to give me private
...for is ... your experience of it.
...in Madras or specially wants to know whether
the Act is effective, that is to say, whether it keeps
the apprentices in the Mills until the full time of
apprenticeship is over, and secondly whether they resent
the element of compulsion in it.

Yours sincerely,

Robert Stanes Esq.,
Coimbatore.

BE
31573

1921
In connection with the re-organisation of
the Madras Technical Institute, the question has arisen
as to whether it is advisable to bring the pupils under
the provisions of the Apprentices Act. As I understand
that this Act is in operation in your Mills, I am to
ask you to be kind enough to give me privately for His
Excellency's reference your experience of its working.
His Excellency specially wants to know whether the Act
is effective, that is to say, whether it keeps the
apprentices in the Mills until the full time of apprenticeship
is over, and secondly whether they resent the element
of compulsion in it.

Yours sincerely,

J. A. Boyson Esq.,

Messrs. Binny & Co. Ltd.,
Armenian Street, Madras.

6
31573

My dear Anderson,

In connection with the re-organizing of the Madras Technical Institute the question has arisen as to whether it is advisable to bring the pupils under the provisions of the Apprentices Act. As I understand that this Act is in operation in your Workshop, I ask you to be kind enough to give me privately for His Excellency's reference your experience of its work. His Excellency specially wants to know whether the Act is effective, that is to say, whether it keeps the apprentices in the Workshop until the full time of apprenticeship is over, and secondly whether they are the element of compulsion in it.

Yours sincerely,

A. R. Anderson Esq.,
Madras & Southern
Royapuram, Madras.

61
315

Madras & Southern Mahratta Railway.

AGENT'S OFFICE.

Rayapuram, Madras 4th June 1913

10

My dear Cottrell

I am in receipt of
your L.O. letter of 31st ult:
& hope shortly to be in a
position to reply to it.

Yours sincerely

A R Chunderram

G.O.No.647, Edl., dated 18-7-1912.

C.No.3278, from the D. P.I., No.417, dated 5-12-12.

ORDER:
P.S.

No. 725 of dated 8.8.13.

In the Proceedings read above the Government, while accepting generally the proposals for the re-organization of the Technical Institute at Madura formulated by Mr. Chatterton, indicated certain modifications in the scheme. In his letters forwarded with the endorsement of the Director of Public Instruction read above, the Superintendent of Industrial Education submits his remarks ^{upon these} with reference to the several points mentioned by Government. ~~Such of his observations as require orders~~ will now be considered.

2. In paragraph 3 of ~~the~~ first of his letters Mr. Tressler suggests that a fee equivalent to Rs 5 per mensem may be fixed for the admission of pupils ~~to~~ to the technical classes and that ~~this fee~~ should be ~~made~~ payable in advance ~~for~~ ^{in the} term or ~~for~~ ^{in the} year. The Government approve this proposal.

3. For the reasons given in Mr. Tressler's second letter No. 1403-I, dated 4th November 1912, the Government accept his recommendation that action should for the present be deferred in regard to the recruitment ~~from~~ ⁱⁿ Europe

Which they desired to be considered.

1. 1912 +
2. 1912 +

14. 3. 1913
1913 3. 1913

9
and
of a trained sizer ~~as~~ an expert weaver. In view of the tentative character of the arrangement for the weaving classes proposed, the Government do not consider that any fixed scale of pay can at present be sanctioned for the weaving assistant.

4. As regards instruction in dyeing, the Government approve the recommendations of Dr. Marsden for opening a class for the purpose, which are summarized in paragraph 13 of Mr. Tressler's third letter No. 1230-I, dated 4th November 1912.

5. In the light of the explanation offered in paragraph 5 of Mr. Tressler's first letter, the Government accept the proposals for instruction in mechanical engineering in the Institute contained in paragraph 21 of Mr. Chatterton's letter No. 96-G, dated 26th April 1911.

6. In paragraph 7 of G.O. No. 647, Edl., dated 18th July 1912, which dealt with the organization of the industrial classes, the Government approved Mr. Chatterton's proposals to grant stipends and rent free accommodation to pupils, but not ^{his suggestion} the proposal ^{to} provide ^{with} free board. Mr. Tressler in paragraphs 6 and 7 of his first letter, requests a reconsideration of this decision and ~~commends for~~ ^{the suggestion to bind} consideration the suggestion to bind

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ORDINARY.

PREFERENCE.

URGENT (c).

LOCAL AND MUNICIPAL DEPARTMENT.

Current No....., dated.....19

O., No. 725 dated 8. 8. 1913.

(b)

Number of MS. pages sent } Correspondence including order or orders
(b) }
Notes.....Chief..... Technical Institute, Madras..... orders in regard to the..... instruction of the

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INSTRUCTIONS FOR THE SECRETARIAT.

(a) If a paper is marked to be printed urgently, the Superintendent of the section concerned should sign the Press slip. The Superintendent should exercise a careful discretion in the matter.

(b) Each letter, memorandum, or order, or set of orders, in the file of correspondence should be headed in succession with the Roman numeral I, II, III, etc., the number being written in red ink or blue chalk above the item. The particular papers to be printed in the special issue-copies should be indicated by the Roman numeral (I, II, etc.) by which that item has been headed in the correspondence file. All matter, including marginal remarks or references, to be printed should be written in ink and matter which should not be printed should be encircled. Initials and signatures that are not quite legible should be re-written distinctly.

(b) For rules regarding printing of notes, see the rules in G.O., No. 1220, Public dated 30th November 1900.

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Type may be released	after usual interval. at once.	Type may be released after usual inter
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Corrected proof received for striking on.....	
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" " " Issue.....	26		
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