

Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

}

1915.

Enclosures

Regd.

}

Spare copies

G.O. No. 1165, 26th October 1915.

Dyeing Expert

Directing that the Government of India be addressed on the subject of the permanent retention of the services of Dr. Marsden, the — .

2

Government of Madras.

EDUCATIONAL DEPARTMENT.

Recd.

Regd.

} 1915.

Enclosures

Spare copies

G.O. No. 1165, 26th October 1915.

Dyeing Expert

Directing that the Government of India be addressed on the subject of the permanent retention of the services of Dr. Marsden, the — .

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

Read—the following paper:—

Letter—from F. MARSDEN, Dyeing Expert to the Government of Madras.
To—the Secretary to Government, Educational Department.
Dated—Ootacamund, the 14th August 1915.

Referring to my conversation with you this morning I regret that some little misconception appears to have arisen as to the construction to be placed upon some of my reports, for I gathered that it was assumed I was very pessimistic about the possibility of doing anything to assist the Dyeing industry.

In my original report submitted in August 1911 after I had toured in the Presidency and made myself acquainted with the conditions, the proposal I made was that provision should be made for imparting technical instruction to dyers. I had stated that successful control of an industry required a combination of business and technical knowledge and the possession of capital by those engaged in it, and that although the possession of business capacity was undoubted and that capital was available, what had struck me most was the absence of all technical knowledge of the nature of the fibres and materials used in dyeing, that the people engaged in dyeing were dependant upon rule-of-thumb methods and recipes and were imitative and without any power of initiative.

My conclusion was therefore that Government could best assist the industry by bringing the technical knowledge bearing upon the subject within reach of the dyers but that the instruction should be limited to those who would be able to take practical advantage of it. It would be a waste of energy to open the classes to people who had no connection with the trade and could neither find employment in it nor start a business of their own and as regards the weavers, it was evident that their lack of education made it impossible for them to take interest in anything but "recipes", which dealt with materials the nature of which was unknown to them, and being passed on from one to another would become altered beyond recognition and would leave the general position unchanged.

The weaver in general lives from hand to mouth, dependant upon the merchant who finances him and it would be a much sounder proposition to instruct this merchant in the question of dyes and dyeing methods, that he should provide suitable materials for the weaver, than that the latter should be encouraged to dye cheaply and badly, taking time for the purpose which might be much more profitably spent at the loom. The dyes he buys are those which are common in the bazaar and cheap and I have often had to point out that for one fibre (cotton) dyes are used which only dye properly upon some other fibre (wool or silk) and it is beyond the intelligence of the users that, although the material is coloured it will not remain so for long. It is their practice and no one has complained before. Where there is any quantity of weaving done, the separation of dyeing and weaving is becoming more and more general and certainly the sub-division of labour is complete in large centres like Madura and Salem. In Madura, besides numerous small dyers, there must be 70—80 who are in quite a large way of business and the area of distribution of Madura dyed yarns has been steadily growing.

It was from these people and the yarn merchants associated with them that I expected pupils would, in the first instance, be found to attend the dyeing classes, but from Salem, Tanjore, Kumbakonam, Madras and Rangoon I have had applications for admission to the proposed classes and even with admission restricted to those who have reached the School Final or Matriculation standard I think there would be enough applications to justify the proposition.

The modern dyeing industry is highly specialised and the multiplicity of processes and the machinery is such that in the higher branches (as evidenced by the work in the mills in Madras and Bombay) nothing can be done except under the control of trained men. This class of work is of course beyond the ordinary dyer who at present dyes nothing but yarn or single short lengths of cloth but in Madura there are evidences of a desire to expand and I would not be surprised to see within a short period the general adoption among the bigger dyers of pumps (with oil engines) for supplying water, centrifugal machines and steam kiers and this could easily be followed by an expansion in the variety of the work turned out. The dyer may be restricted in his outlook but when we consider that the present Madura industry is a growth of the last 25 years, one cannot say that its point of highest development has been reached and with an increasing number of pupils from the high school taking part in the work, capable of appreciating the knowledge of materials and processes which can be gained from a study of western dyeing we shall have a larger proportion of Indian dyers with ideas and capacity to carry out their ideas, and not have as at present a dead level of imitativeness, dependant for all ideas upon outside influences.

It was proposed that provision for giving such technical instruction as might be found suitable should be made in the Madura Technical Institute as Madura was the largest dyeing centre and there appeared to be among the dyers a number of men of more progressive character than one usually finds. I held small classes for two years in a room but poorly adapted to the purpose, the main object being to test whether the material was suitable for instruction and what the necessary preliminary education standard would be.

The classes were then discontinued until proper provision for holding the classes was made, but in 1913 I outlined in one of my reports a course which I thought would be sufficient to start with; the duration would be about two years, but could be extended if the class of student coming forward justified it. The course was to include general elementary science and especially chemistry, the technology of textile fibres and dyeing, and although the necessary apparatus for carrying out the idea has been ordered out from home the delay in erecting the institute has upset all our calculations.

In connection with the Madura Technical Institute it was Mr. Chatterton's original intention I understand that besides serving as Dyeing Expert, I should take over administrative charge of the Institute as Principal and with well equipped mechanical and carpenter's workshops and laboratories, I thought there would be a good prospect of raising the standard of the school from an industrial one to one of a more "technical" type. Under Mr. Dunhill the institute has earned a wide and good reputation and it is only the lack of buildings and workshops and the difficulty of finding living accommodation for pupils from outside which has interfered with its rapid development; given these and an adequate teaching staff it will be in a position to meet what is a distinct want in the south for well trained mechanics and artisans.

A gradual rise in the standard of admission and an extension of the staff as required, to give instruction in mechanics, electricity, steam, mechanical drawing and mathematics especially would give us an institute which might have a material influence upon the development of the southern part of the Presidency.

The delay in the completion of the institute may have been affected by Mr. Tressler's desire to remodel the scheme of industrial and technical education in the Presidency and to make this better adapted to meet the present day requirements. While I was in Madras, assisting with the work of the committee which discussed the matter I gathered that Mr. Tressler's ideas included the provision of a normal training school for industrial teachers and also a widening of the activities of the Department of Industries which would require the provision of special assistance. The question of industrial analysis and control appears to be one with which the department often finds difficulty and this being outside the sphere of the Chemical Examiner to Government Mr. Tressler was desirous of having under his control the means for carrying out this necessary work. I have had some experience in the past in this direction and was given to understand that he was approaching Government

in the matter and if it went through I would be called up to Madras to take charge. At the same time I would control the work in connection with the dyeing classes which, if they were of a technical character, could be held with equal success in Madras as in Madura and an assistant could be appointed to keep in touch with Madura dyers and give demonstrations of a practical character.

There is little doubt I think of the usefulness of a Testing Department, such as Mr. Tressler desires, to deal with Industrial products and it is purely a question of competent assistants whether it would be possible for me to supervise and control the work in it and a Dyeing school. The school would require to be accommodated in the same building as the Testing Department, that one might be in constant touch with the work in each but given competent assistants, there is no reason why the work of the chemical assistant and Dyeing Expert, in the initial stages at least, should not be in the hands of one person.

Regarding the work which I might engage in, pending the construction of a laboratory, much would depend upon the schemes which Mr. Tressler has in hand. He has intimated to me that he will require me to go into the question of the preparation of wood for use in pencil-making, then there would be much to do in connection with experiments at the Punalur Paper Mills if the question of title to the ownership of the mills were definitely settled.

I expect I shall always be having enquiries with regard to dyeing sent to me and there is the work in the Bureau of Industrial information which I understand Mr. Tressler is desirous of extending.

If there is any point upon which further information is required I hope I may be called upon to furnish it.

Order—No. 1165, Educational, dated 26th October 1915.

The Government of India will be addressed on the subject of the permanent retention of the services of Dr. Marsden, the Dyeing Expert.

(True Extract.)

C. G. TODHUNTER,
Acting Secretary to Government.

To the Director of Industries.

GOVERNMENT OF MADRAS.

EDUCATIONAL DEPARTMENT.

No. 1165-A.

From

THE HON'BLE MR. C. G. TODHUNTER, I.C.S.,

Acting Secretary to the Government of Madras,

Educational Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,

DEPARTMENT OF EDUCATION.

Dated Fort St. George, the 26th October 1915.

SIR,

I am directed to address you on the subject of the permanent retention of the services of the Dyeing Expert in this Presidency.

2. In paragraph 9 of the Secretary of State's Despatch No. 50, Revenue, dated the 29th July 1910, sanction was accorded for the employment of this officer for a period of two years and Dr. F. Marsden was appointed to the post. The term of appointment was subsequently extended by three years under the sanction conveyed in letters from the Government of India, Department of Education, No. 224 C.D., dated the 10th February 1913, and No. 924, dated the 22nd May 1913. His present engagement will, in the ordinary course, expire on the 25th March 1916.

3. As stated in Mr. Davidson's letter No. 1083, dated the 9th December 1912, Dr. Marsden was instructed in the first instance to confine himself to a detailed study of the indigenous methods of dyeing with a view to the practical demonstration of minor improvements therein and the gradual establishment of such relations with the local dyers as would pave the way to regular instructional courses in the event of its being decided later on to establish a permanent tinctorial laboratory. The investigations made showed that the local dyers, had absolutely no knowledge of the nature of the fibres and materials used in dyeing and were dependent upon rule-of-thumb methods and recipes and that the best means of assisting the industry was by bringing technical knowledge bearing upon the subject within reach of the dyers, the instruction being limited to those who had sufficient education to be able to take advantage of it. This Government have accordingly resolved to establish a permanent tinctorial laboratory with technical classes in dyeing at Madura, the chief centre of the dyeing industry in this Presidency, where individuals connected with the trade may receive instruction in elementary science, the nature of dyeing materials, the technology of textile fibres and dyeing processes. The construction of a building for this laboratory in connection with the Madura Technical Institute has also been sanctioned.

4. Dr. Marsden, in addition to conducting these classes, will act as general industrial chemist to the department which is in constant need of advice on chemical questions.

5. This Government therefore desire that the post of Dyeing Expert in the Department of Industries should be made permanent with a salary of Rs. 750 for the present and I am to request that the Government of India will be pleased to obtain the sanction of the Secretary of State to this proposal. If it is accepted, Dr. Marsden may be confirmed in the post and he may be allowed to count his past service under this Government beginning from the 25th March 1911, as qualifying service for the purposes of leave and pension and he may be declared to be eligible for leave under the European Service Rules.

I have the honour to be,

Sir,

Your most obedient servant,

C. G. TODHUNTER,
Acting Secretary to Government.

EDUCATIONAL DEPARTMENT.

NOTES CONNECTED WITH G.O. Nos. 1165-1165-A, EDUCATIONAL,
DATED 26TH OCTOBER 1915.

[*SUBJECT.—Term of engagement of Dr. Marsden, the Dyeing Expert.*]

Dr. Marsden, the Dyeing Expert, was first appointed by the Secretary of State for a period of two years. He joined duty at Madras on the 25th March 1911; his original term of engagement, which expired on the 25th March 1913, has, with the sanction of the Government of India and the Secretary of State, been extended by three years from the latter date. His term will, therefore, in the ordinary course, expire on the 25th March 1916. It will be sufficient if the question of addressing the Government of India for the further retention of the expert is taken up for consideration in September or October 1915.

Please see paragraph 2 of letter 1083, Educational, 9th December 1912.

G.O. 166, Educational, 21st February 1913.
G.O. 500, Educational, 4th June 1913.

We had better take it up for consideration in July next or so.

P.R.—17-11-14.

2. At present, pending the construction of new buildings for the Madura Technical Institute, a building has been rented at Madura for a laboratory for Dr. Marsden and he is holding classes in it. Please see paragraph 32 of the administration report of the Director of Industries which gives an account of the work done by Dr. Marsden in 1913-14.

S.K.—16-11-14.

C.R.—16-11-14.

As directed by the Secretary above the question of the extension of Dr. Marsden's term of office is now submitted for orders.

2. Dr. Marsden was engaged in 1911. As soon as he arrived in Madras he was asked to visit the several dyeing centres in this Presidency in order to make a survey of the industry and to submit a report embodying suggestions for its improvement. His report was received in September 1911 and orders were passed on it in February 1912—please vide G.O. No. 112, Educational, dated the 9th February 1912. In this Government Order he was asked to confine himself in the first instance to detailed study of the existing methods of dyeing with a view to practical demonstration of minor improvements in the industrial processes and the gradual establishment of such relations with the local dyers as would pave the way to regular instructional courses in the event of its being decided later on to establish a permanent tinctorial laboratory. For this purpose a small laboratory was made available for him in Madura.

3. In connection with the re-organization of the Madura Technical Institute Dr. Marsden was asked to report whether there was an opening at Madura for a dyeing class and, if so, to submit detailed proposals for its establishment. In reply to this, he stated that it was desirable to

Paragraph 5, page 34 of G.O. 647, Educational, 18th July 1912.

establish such a class at Madura; and the lines on which it should be organized are detailed in his letter embodied in Mr. Tressler's letter No. 1280-I, dated the 4th November 1912, on pages 5 to 8 of G.O. No. 725, Educational, dated the 8th August 1913. The Government accepted his proposals; and the new buildings to be constructed for the Madura Technical Institute are to provide the necessary laboratory and accommodation for such a class.

4. Up till last year, Dr. Marsden was, pending the construction of the new buildings, holding classes in dyeing with the aid of the temporary laboratory at Madura. In his report for the quarter ending the 31st March 1914 he stated that he had brought the class to a close and that, owing to the insanitary condition of the locality in which the temporary laboratory was situated and other causes, the work could not be carried on. Some time after this he was called to Madras to attend to the work connected with the meetings of the industrial education committees convened last year and it was only towards the beginning of this year that he went back to Madura. Mr. Tressler recently proposed that, as the dyeing classes in Madura did not attract many students and that as it was unnecessary to have such a highly-paid officer to conduct the classes alone, Dr. Marsden's head-quarters should be permanently transferred to Madras and that he should be made the Principal of the Madras Trades School and that dyeing classes should also be started in that school. But in his proposals for the appointment of Deputy Directors for the department Mr. Tressler has since suggested that Dr. Marsden's appointment should be converted into that of a permanent Deputy Director and that he should be put in charge of the Bureau of industrial information with the work of lecturing on dyeing in the Trades School at Madras. His qualifications are detailed in the copy of his letter on pages 12 and 13 of G.O. No. 449, Educational, dated the 29th April 1915. He is at present giving lectures in science in the Leather Trades School which has recently been opened in Madras, in the absence of Mr. Guthrie, the leather expert, who has been deputed on military duty. As his term will expire on the 25th March 1916, it is now for consideration whether his tenure of appointment may be extended for a further period or permanently.

5. Whether, in addition to teaching in dyeing, the officer is given the work of superintending the Madras Trades School or the charge of Bureau of industrial information, there seems to be little doubt that the services of the expert will be required for the dyeing class, the permanent retention of which has already been approved. In applying to the Government of India in 1909 for the temporary appointment of a dyeing expert, it was pointed out that there was considerable scope for the improvement of the process of dyeing in this Presidency and that the question of establishing a Trade Dyeing School would be considered on receipt of the report of the expert. Dr. Marsden's report showed that the only direction in which development could best be looked for was an increase in the number of larger dyeing houses controlled by men with capital and who possessed technical and business knowledge, and that it was desirable that the Government should make provision to supply the technical instruction needed. There seems thus to be justification for the opening of the dyeing classes and for the retention of the expert for the purpose permanently.

Paragraph 4, page 9 of G.O. 725, Educational, 8th August 1913.

Paragraph 2 of letter 3442, Educational, 3rd March 1909, on page 11 of G.O. 3446, Revenue, 27th October 1910.

Page 28 of G.O. 112, Educational, 9th February 1912.

6. As regards the pay to be fixed for the post, the scale of Rs. 500—50—1,000 proposed by Mr. Tressler for the Deputy Directors would seem suitable.

S.K.

C.R.—3-8-15.

A perusal of the record of Dr. Marsden's five years' work is not encouraging. His technical qualifications are high, but he appears to be a confirmed pessimist as to the prospects of the work he came out to do, i.e., to improve indigenous processes of dyeing. To quote an example—

"It only comes to the point upon which I have so often written—so long as we have absolutely uneducated workmen unintelligently imitating the older craftsmen, incapable of appreciating the value of any outside knowledge which does not bear immediately on the question of reduction of costs or increase of profits, and untroubled by any considerations of reputation, we can only expect deterioration both in quality of work and capacity of the workman."

His final conclusion is that "if any progress is to be made, weaving and dyeing must be separated and the weaver brought to realize that it is more economical to devote himself entirely to weaving and leave the dyeing to those who make a wholtime business of it, study the question, keep in touch with the changes in colours and methods which are taking place and dyeing in bulk, can do the work more cheaply and efficiently than those who dye irregularly, in small quantities, and mostly by wasteful and unsuitable methods."

He proposes hereafter to train only men with "technical knowledge, business capacity and capital." As none of these are likely to be forthcoming, there seems to be no case for keeping Dr. Marsden on as a dyeing expert alone. The department is intended to foster "cottage industries."

The alternative is to make him a Chemical Deputy Director with charge of the Industrial Bureau in pursuance of Mr. Tressler's major scheme. The question of the renewal of his contract or his permanent employment may therefore be dealt with as part of that scheme.

C. G. TODRUSTER—7-8-15.

Demi-official—from F. MARSDEN, Esq., Dyeing Expert, Leather Trades School, Washermanpet, Madras.

To—C. G. TODRUSTER, Esq., I.C.S., Secretary to Government, Judicial Department.

Dated—Madras, the 19th August 1915.

I have just had a visit from a student who having passed the intermediate examination in Madras went to Sibpur to take the Dyeing course there. He now comes to me to assist him in finding employment and exemplifies by point that it is a mistake to permit men to waste time in learning a subject in which it will be by pure chance that they can find employment. If this man cannot get a place in Madras or Pondicherry mills he will probably have to turn to some other branch and give up the hope of doing any practical dyeing.

I think he would have been well advised to consider the question of subsequent employment before he entered upon his course and under present conditions although we could no doubt fill our classes with men of this type I think it distinctly preferable to restrict admission to those to whom employment in a dye-house or in connection with it would come as a natural course.

No notification of any Dyeing classes having been given, the applications we spoke of cannot be taken to represent those which would be expected were the fact that we were prepared to open the classes officially published. Another application from Tanjore reached me yesterday morning, and I really think that once the opening of classes is announced we should have to exercise a rigorous selection and would still get a sufficient number of pupils of the right kind.

In spite of the elaborate equipment of the Sibpur Department I am informed that they are satisfied with five students per annum and though my proposal, to consider only those pupils who are connected with the trade, is more likely to give results I could not presume to ask for anything like the equipment which they have at Sibpur. This, and the course of instruction, may be suited to a Dyeing school in England or Bombay with its numerous mills, but is out of place in Bengal or Madras and simpler arrangements more suited to the conditions in which the Indian Dyer works will meet the needs for a few years to come.

I enclose the circular giving particulars of the Sibpur Dyeing Courses and will be glad to have it back if you have no use for it.

CIRCULAR.

DYEING CLASSES.

Civil Engineering College, Sibpur.

These classes have been opened to afford instruction in practical dyeing and in the chemistry of dyeing.

The equipment includes a well-provided laboratory, an experimental dye-house and a practical dye-shed equipped with the latest up-to-date machinery.

The full course extends over two years; it includes organic chemistry, technology of textile fibres and materials, principles and methods of bleaching, dyeing and printing, chemistry of dye-stuffs, mechanical engineering and drawing.

On the completion of the course regular students are qualified to appear at an examination conducted by the college staff, assisted by outside experts. Upon the result of this examination the college diploma in the "Principles and Practice of Dyeing" is awarded to successful candidates.

Qualifications.—Regular students should have passed one of the following examinations, or possess equivalent educational attainments:—

The intermediate examination in science or arts (with chemistry).

The intermediate examination in engineering.

The final examination of the Government Weaving Institute.

No limits of age are specified.

Occasional students.—Men having a practical knowledge of dyeing may be admitted, if they have sufficient education and provided there is room.

Residence.—The hours of daily attendance are fixed so as to make it possible for students to attend from Calcutta. Students of the dyeing class may be admitted to the college barracks if there is room.

Stipends.—Seventeen stipends, tenable by regular students for one year, are available. They are renewable for a second year, and are of the following value:—

	European.	Indian.
	RS.	RS.
For students resident at the Civil Engineering College ..	25	14
For non-residents	18	10
	RS.	

The college charges are as follows:—

(1) For all students—

A caution money deposit of 10

(2) For resident students:—

Boarding European	25	} monthly.
Do. Hindus	10	
Electric light	1	
House-rent	2	
Athletic Club, entrance fee	1	
Do.	3 yearly.	

Admission.—No student will be admitted without the recommendation of the Commissioner of the division in which he resides.

If the Commissioner's recommendation has not been received in time the application should be posted without it; the matter will then be taken up by the Principal. All applications should be made on the prescribed form and posted so as to reach the Principal's office before the date noted below.

CIVIL ENGINEERING COLLEGE,
SIBPUR,
24th January 1914.

B. HEATON,
Principal.

Course of Instruction.

The course, which will ordinarily cover a period of two years, will include the following subjects:—

(A) Lectures and laboratory work in—

- organic chemistry (general) and
- Chemistry of dye-stuff and textile materials.

(B) Study of the practical processes of dyeing on an experimental scale.

(C) Theoretical and practical work in the following branches of mechanical and civil engineering:—

- Heat engines.
- Principles of machine design.
- Drawing (of buildings and machines).
- Workshop practice, carpentry and fitting.

Exemption in respect of the whole or part of (d) may be granted, at the discretion of the Principal, to students who have passed the intermediate examination in Engineering.

Outlines of syllabus of instruction.

The syllabus will include the following:—

- Organic chemistry lectures.
- Lectures on the principles and methods of dyeing:

Nature and composition of the textile materials; nature and properties of dye-stuffs, artificial and natural; sources of natural dye-stuffs and preparation of artificial dye-stuffs; application of dyes; mordants and assistants; matching of tints; preparation of dye-bath to give desired spectroscopic examination of dyes and dyed materials; dyeing of mixed fabrics; machinery used in dyeing; bleaching, cope-dyeing, yarn-dyeing, cloth-dyeing, printing of textile fabrics.

(iii) Laboratory work including—

Dyeing on a small scale in experimental pots; use of mordants; classification of dyes; comparison of dyes; testing fastness; mixing dye-baths to match given tints; spectroscopic examination of dyes and dyed materials; microscopic and chemical examination of dye-stuffs and dye-yielding materials; water analysis and purification.

(iv) Theoretical and practical work in the following branches of mechanical and civil engineering:—

Working knowledge of heat-engines (steam and oil especially); design of technological machinery; construction of buildings (sheds, etc.), carpentry, fitting and machine drawing.

I have since had the opportunity of a talk with Dr. Marsden and put the above point of view to him in a rough note to which he has replied in the communication

Page 3 *supra*.

in the current file. Briefly, he does consider it hopeless to make anything of the weaver-dyer, but he thinks he will be able to make something of the bigger men who are dyers and dyers only. There are very few of these and he would be able to reach them as well in Madras as in Madura. He would have time to spare and would therefore be able to take up the work of general chemical assistant to the Director. In other words he favours the Deputy Director's scheme.

In a subsequent communication he forwards particulars of a most elaborate course in dyeing work given at Sibpur.

C. G. TODHUNTER—30-8-15.

Retention of Dr. Marsden's services, approved: in what capacity and where he is to be employed, are points for further consideration.

P[ENTLAND]—15-9-15.

Submitted that this may lie over till the return of the file regarding the appointment of Deputy Directors which has been circulated to His Excellency the Governor and Honourable Member (Financial). The question in what capacity and where Dr. Marsden is to be employed is discussed in that file.

S.K.—19-9-15.

C.R.—19-9-15.

Very well.

C.G.T.—20-9-15.

The file regarding the scheme for the appointment of Deputy Director has returned from circulation. It has been decided therein that that scheme should not be put forward now. The question of Dr. Marsden's further retention has therefore to be considered separately. The proposal to retain his services has already been

accepted. Please see His Excellency the Governor's note on page 5 *supra*. Apparently it is intended to retain him *permanently*, as the Government have sanctioned the permanent addition of dyeing classes to the Madura Technical Institute. As regards the question in what capacity and where he should be employed, it is submitted that

* In note on the files relating to the Department of Industries. His Excellency the Governor has noted as follows in another connection * :—

"I am not prepared to assent without further information to the removal of Dr. Marsden from Madura. Dr. Marsden, it appears from Mr. Tressler's proposals, is to be taken from the work for which he was brought out and in which he is an expert and removed from the centre of the dyeing industry to help generally in the Department of Industries, to supervise the Trades School, to act generally as chemist to the department in Madras and at the same time to superintend the proposed paper work at Punalur. I am aware that there is a great dearth of qualified men at present and these proposals to utilize Dr. Marsden's services are possibly due to this cause; but I cannot understand or accept without further information the reversal of policy which has taken place in regard to Dr. Marsden's employment at Madura which is the centre of the dyeing industry."

From this it may be assumed that Dr. Marsden is to be at Madura in charge of the dyeing section of the Madura Technical Institute. The Government of India may, it is submitted, be addressed to obtain the sanction of the Secretary of State for the permanent retention of his services and also for declaring his service as qualifying for leave and pension. It is presumed that his pay should continue to be Rs. 750 for the present. The proposal to retain him permanently has been accepted by the Financial Department in connection with the scheme for the appointment of Deputy Directors of Industries. The draft letter, if approved, may, however, be sent to that department for perusal before issue.

S.K.—7-10-15.

C.R.—7-10-15.

It is not very easy to make out a case for Dr. Marsden's permanent employment as a dyeing expert only when he himself limits his functions to the teaching of half-a-dozen students a year. If he had had a little more of Mr. Chadwick's perseverance he might not have been so pessimistic about getting the weaver-dyer to change his ways.

C. G. TODHUNTER—8-10-15.

To the Financial Department.

FINANCIAL DEPARTMENT.

From the notes on pages 26-39 of notes to G.O. No. 1120, Educational, dated 7th October 1915, it will be seen that the scheme for the appointment of Deputy Directors in the Department of Industries which provided for Dr. Marsden's permanent retention as an Industrial chemist on Rs. 500—50—1,000 and which was also accepted by Chief Secretary in Financial has since been dropped under His Excellency's orders.

2. The proposal now is to make Dr. Marsden permanent on Rs. 750 per mensem for the present. The post held by this officer being that of a Gazetted Civil officer recruited in England, the creation of a post to be permanently held by Dr. Marsden requires the Secretary of State's sanction. The proposal need not be objected in Financial. The draft may, it is submitted, be accepted.

A.S.—12-10-15.

L. E. KERSHAW—15-10-15.

It is a matter mainly for Educational to decide whether the retention of the post of dying expert is advisable and whether Dr. Marsden is the best man for that post.

I observe that His Excellency noted on the present file before he decided to drop the scheme of Deputy Directors. That decision seems to affect the present question materially for it seems questionable whether there is work at Madura on which to employ Dr. Marsden until, at all events, the tinctorial laboratory is built. When that building will be complete I do not know, but if some years are to elapse it seems possible that we might in the interval save the pay of a dying expert.

Perhaps Educational will consider whether His Excellency's orders should not be taken again on the subject of Dr. Marsden and any way Honourable Member, Financial, should see.

The file should have come to Financial before as in his note of 30th August the Educational Secretary apparently endorsed the proposal to keep on Dr. Marsden.

A. BUTTERWORTH—16-10-15.

To the Educational Department.

EDUCATIONAL DEPARTMENT.

Submitted to Secretary for orders as to circulation.

2. With reference to the last sentence of the Chief Secretary's note above it is respectfully submitted that the file was sent to Financial linked with that relating to the scheme of Deputy Directors. The register entry has been omitted in the scheme of Deputy Directors. Please see the register entry of the Financial Department in this case and

paragraph 3 of Secretary's note on page 22 of papers with G.O. No. 1120, Educational, dated 7th October 1915. No note was apparently written in the present file, as the scheme of Deputy Directors was accepted by the Financial Department.

C.R.—19-10-15.

His Excellency the Governor has approved the retention of Dr. Marsden's services, leaving the capacity and place in which he is to be employed for further consideration. The sanction to his employment expires in March next. He is now employed in Madras and likely to remain here till close of the war. Thereafter, if it is decided that he should continue his work at Madura, he can take over his classes in dyeing coupled with the principalship of the Technical Institute there; if the Deputy Director scheme is revised, he can be fitted in as Chemical Deputy Director. The simplest course in the meanwhile seems to be to ask that he be made permanent in his present post.

C. G. TODHUNTER—19-10-15.

P[RENTLAND]—22-10-15.

H. A. S[UTWART]—24-10-15.

[G.O. Nos. 1165-1165-A, Educational, dated 26th October 1915.]

C. No. 28074, From the Dyem Expert No. , dated 14. 8. 1915

No. 1165-88, dated 26/10/1991

PT

The Govt of India will be addressed on the subject of the ~~retention~~ permanent retention of the services of Dr. Marsden, the Dyeing Expert.

$\frac{5K}{7-10.15}$
 $\frac{8}{8-10.15}$

Letter - L 1165-A 8/26/65

The Sec^y to the Gov^t of Iowa
Department of Ed.

Ln

I am directed to address
you

The D. I. over m.
Dun? Space cut
av 27
11/10/15

26/10/15
Dashed ac Letter only (35)
ac 27/11/15
26/10/15 -

(A)
page 29 of 3448 Rec
27.10.10

Page 29 of 166 25 (R)
21.2.13

and 9244 dated
the 22nd May 1913

(Q)

you on the subject of the permanent retention of ~~the~~ services of the Dyeing Expert in this Presidency.

2. In para 9 of the Secretary of State's Despatch No. 58 Rev., dated the 29th July 1910, sanction was accorded for the employment of a ^{this present} ~~Dyeing Expert~~ in this Presidency for a period of two years and Dr. L. Harrison was appointed to the post. The term of appointment was subsequently extended by three years under the sanction conveyed in the letter from the Govt of India Department of Education, No. 224 C. S., dated the 10th February 1913. His present engagement will in the ordinary course expire on the 25th March 1914.

3. As stated in Mr. Davidson's letter No. 1083, dated the 9th December 1912, Dr. Harrison was ^{instructed} ~~asked~~ in the first instance to confine himself to a detailed study of the indigenous methods of dyeing with a view to

to the practical demonstration of minor improvement therein and the gradual establishment of such relations with the local dyers as would pave the way to regular instructional courses in the event of its being decided later on to establish a permanent tinctorial laboratory. ^{the} Investigations in this direction were made by the expert and they showed that the ^{local} dyers had absolutely no knowledge of the nature of the fibres and materials used in dyeing and were dependent upon rule-of-thumb methods and recipes. ~~It was also~~ ^{and} ~~President~~ ^{President} that the best means of assisting the industry was by bringing the technical knowledge bearing upon the subject within ~~their~~ reach of the dyers, the instruction being ^{limited}

page 2 of cp.

detach, map Am
1911 and 1912 20

but sufficient attention to
 limited to those who ~~would~~ be
 able to take advantage of
 it. This Government ^(have) ac-
 cordingly resolved to ~~not~~
 establish a permanent
 technical laboratory
 with technical classes
 in dyeing at Madras,
 the chief centre of the
 dyeing industry in this
 Presidency, where ~~the~~
~~industry was connected with the~~
~~children of the dyeing~~
~~community~~ ^{the} ~~may~~
 might receive
 instruction in elementary
 science, ^{the} nature of
 dyeing materials, ^{the} tech-
 nology of textile fibres
 and dyeing processes.
 The construction of
 a ~~new~~ building for
 this laboratory which
 is ^{in connection with} ~~to be attached~~
 to the Madras Technical
 Institute has also
 been sanctioned re-
 cently.
 As an experimental
 measure, a class

Please see para 4 of
 G.O. No. 725 ⁵⁰¹ ^(E)
 P. S. 13

para 13, page 8 of G.O. ibid (E)

G.O. No. 2350 ^(P)
 7.12.14

in dyeing for the sons of weavers and dyers was opened at Madura but much progress could not be made with this in the absence of a properly equipped laboratory.

The Governor in Council considers that the services of the Dyeing Expert should be retained permanently for the dyeing section of the Institute. Further, the services of a dyeing expert who will ordinarily also be a chemist will be of great use to the Department in other ways in connection with the experiments and investigations undertaken by it.

5. This Government therefore desire that the

Please see report in Gp. 11. 673A
6.6.14

D^r Warden, in addition to conducting these classes, will act as general industrial chemist to the department, which is in constant need of advice on chemical questions.

to pay Rs 750. (vide Z. no. 14
for the present funds.)

the post of Dyling
Expert in the Depart-
ment of Industries
should be made per-
manent with a salary of Rs 750 for the present
and I am to
request that the
Government of India
will be pleased to
obtain the sanction
of the Secretary of
State ^{to this proposal}. If
the proposal is
accepted, D. Hanson
may be confirmed
in the post and
he may be allowed
~~to count his past service~~
to count
his past service
under this Government
beginning from
the 25th March 1911,
as qualifying ser-
vice for the pur-
poses of leave
and pension and
he may be ~~declared~~
declared

Y at 3700-18

declared to be eligible for
leave ~~from~~ under the European
Service rules.

I have etc.

24
7.10.15

CA
7.10.15

OS
8.10.15

26/10/15

P.T.O.

TO PRESS, MADRAS OOTY.

A

Please send proof in duplicate. The papers have been carefully edited.

B

Proof returned corrected. Please strike off and send number of copies as indicated.

Type may be released after usual interval, at once.

Referencer.
Clerk.

Referencer.
Clerk.

C

As the matter is clear manuscript and has been carefully edited, (b) proof need not be sent. Please print and supply number of copies as indicated.

Type may be released after usual interval.

Referencer.
Clerk.

Supdt.

Supdt.

Supdt.

SPECIAL INSTRUCTIONS.

Dyew's Expert
Directing that the Govt of India be addressed on the subject of the permanent retention of the services of D. Marsden, the *Dyew's Expert*.

TO BE FILLED IN BY THE PRESS.

Diary.	Initials of Press official.
Received in Press on.....	4/11/15 - <i>LS</i>
First proof furnished on.....	12/11/15 - <i>LS</i>
Call for revised proof received on.....	
Revised proof furnished on.....	
Corrected proof received for striking on.....	27/11/15 - <i>LS</i>
Final copies supplied on.....	27/11/15 - <i>LS</i>

Account of copies.	Complete copies.	Notes.	Issue copies.	Special E.T. edition.
Supplied to Secretariat for Record.....	35			
" " " Issue.....	40			
" " " for Extra E.T. copies to supply requisitions for sale to the public.				4
For Volumes.....	16			
For supply to newspapers and institutions admitted to the privileges of the E.T.				
Total ...	91			