

Home (1917) Department.
Education

Ordinary SERIES.

G.O. No. 839

DATED 23-6-17

INDEXED

[Despatch Abstract.]

Leather Trade School, Madras.

Approving the proposals submitted by the Officer in charge of the Department of Industries for working the ----- and sanctioning the proposal to employ M. R. By P. K. Rajamanikam Nayudu temporarily as first assistant in the school.

PAPERS PUT UP WITH CURRENT No. _____

Papers of the department to which the current belongs.

Number.	Date.	Original (= O.) or spare copy (= S.O.)	Remarks. (In this column such of the papers as have been removed for copying, printing, etc., should be marked with a cross.)	Initials of Referencer with date in token of return to Reference department.

Papers of other departments.

Department.	Number	Date.	Original (= O.) or spare copy (= S.O.)	Initials with date of (1) Referencer acknowledging returns of the paper concerned or (2) Despatcher to denote the return of the papers to the department concerned.

C.No. 2263 A 82

19.6.17

Office of the Director of Industries

Camp. Ootacamund.

18th June, 1917.

From

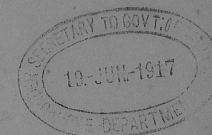
C. A. INNES, Esq., I.C.S.

Special Officer in charge of the
Department of Industries.

To

The Secretary to Government

Home (Education) Department.



Sir,

I have the honour to submit the following proposal for the
consideration of Government.

2. As Government are aware, I am not at all satisfied with
the way the Leather Trade School has been run since it was open-
ed in July, 1915, and I attach to this letter a copy of a note
which I circulated to various gentlemen in Madras who are inter-
ested or engaged in the Leather trade. Most of the gentlemen con-
sulted have agreed generally with the proposals made in the note
for the re-organisation of the school, and Mr Guthrie, who has
come back from Mesopotamia and whom I have had an opportunity of
consulting, has also expressed his entire agreement with the

general idea underlying my proposals.

3. Accordingly, Mr Kurup and I have worked out a revised scheme of work for the school for the ensuing year. The central feature of the scheme is that the school will be run as a small demonstration tannery. The lectures will be cut down to a minimum. Those on elementary engineering and book-keeping will be dropped altogether, and formal lectures will be restricted to -

(1) for 1st year men - General Science, 6 hours a week;

(2) for 2nd year men - Principles of Leather manufacture

4 hours a week; and

(3) for 3rd year men - Methods of tanning and Methods of

currying and finishing 4 hours

a week.

The lectures will be delivered in accordance with approved syllabuses, and the rest of the time will be devoted to practical work and to laboratory checks on the work done in the tannery.

I have extended the week's work to 30 hours, and this work will be divided as below:-

	1st year.	2nd year.	3rd year
Lectures.	6.	4.	4.
Laboratory.	9.	9.	6.
Practical.	24.	23.	23.
	39.	36.	33.

(4). The practical work will be carried on on the line laid down in the prospectus issued in 1915, a copy of which is attached. But the Principal will accept orders for tanning and finishing, and Mr Chambers of the Chrome Leather Company has offered to make over to the school all the private orders he gets. Other hides and skins required will be bought in the open market but I have instructed the Principal to run the tannery on as small a scale as possible consistently with demonstration on commercial lines, and have limited him to not more than two dozen hides a day. I am advised that if this maximum is not exceeded, no complaint can be made of interference with private trade.

5. Another feature of the school will be experiments with different tanning agents. Black wattle bark will be the first to be taken up for experiment. A consignment has been received from Natal, but Messrs Henderson and Guthrie do not think it advisable to distribute it to tanners without careful preliminary experiments, and I have agreed to have these experiments made at the Leather Trade School. They are most necessary. Recently I saw at the Kodambakum tannery two hides absolutely ruined with wattle bark, and the man in charge said that he would never use the bark again. Obviously he did not know how to use the bark, and he had no means of making any laboratory test of the

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tanning liquor and of seeing where his mistake lay.

6. I have admitted six new students to the school for the coming year, all of them being in some way connected with the tanning or leather trade. If they all join, there will be 11 students at the school.

7. These proposals will necessitate some increase of staff. Apart from Mr Kurup, the sanctioned staff of the school consists of the following:-

1st Assistant on Rs 100 - 5 - 150.

2nd Assistant on Rs 75 - 5 - 100.

3 Tanning foremen on Rs 30 each.

But of these only the 2nd Assistant who lectures in chemistry and physics, and one tanning foreman have so far been employed. Another foreman on Rs 30 will be required, and I propose to recruit one. But what is wanted most is a man with experience both of tanning and leather work and of leather chemistry who can assist Mr Kurup in running the tannery, in the laboratory control of the tanning processes and in research. The second Assistant is useless for these purposes. In the first place, he is a chemist pure and simple and has no knowledge of leather work or leather chemistry, and secondly he is an old man and is not fit for the 1st Assistant's place. A man however with the necessary experience is available in the person of Mr P.K.Rajamannickam Naidu,

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a Government of India scholar in tanning and leather work who returned from England last October. His certificates are submitted. It will be seen that he holds various certificates in leather tanning, dressing, dyeing and finishing from the Leathersellers' College and the City and Guilds of London, and that he has had experience of practical tanning in various firms at home. He came out with a recommendation from Sir V. Hammick, and I have been trying to find him employment in Madras, but without success. He has much the same qualifications as Mr Kurup, and ordinarily would require much the same pay, viz., Rs 300 a month. But he is out of employment and I have reason to believe that he would accept as a temporary measure Rs 150 a month. I request sanction therefore to offer him ~~temporary~~ temporary employment in the Leather Trades School as 1st Assistant on the maximum of the sanctioned scale, namely Rs 150 a month. It seems extravagant of course to employ three professors for 11 students, but apart from the fact that the pay of the three professors ~~combined~~ combined does not equal that of Mr Guthrie, I am quite satisfied that if the school is to be run as it should be run, Mr Kurup will require assistance, and Mr P.K.R. Naidu is exactly the sort of assistant that is required.

6/ Economy obviously should lie in the direction of dispensing with the services of the 2nd Assistant who will have only 8 hours lecturing a week, and I will see if this can be done. I am not sure whether either Mr Kurup or Mr P.K.R.Naidu is qualified to lecture in science and physics, though both of them have, I understand, a working knowledge of leather chemistry. But in any case the 2nd Assistant will require notice, and as the new term begins next Monday, I request sanction for the proposal to offer the 1st Assistant's post to Mr P.K.R.Naidu on the terms stated above.

8. Very early orders are requested.

I have the honour to be,

Sir,

Your most obedient servant,

Chambers

Shree Narayan

The Leather Trade School.

The establishment of this school was sanctioned in G.O. No. 613 Ed. dated the 10th July 1912. The school was opened in July 1915, and is just now beginning the third year of its existence. It owes its existence in its present form to Mr. Guthrie, the Leather Expert, but just as the school was opened he was permitted to go on active service, where he still is. Mr. Marsden was the first Principal, and he was assisted on the practical side by Mr. Mason of the Madras Chrome Leather Company but this arrangement did not last long and for the last 18 months the school has been in the charge of Mr. Raghava Kurup. He was first trained by Mr. Chatterton at Sembiam, then he went to England where he spent several years, and went through a course of leather work with distinction.

2. Object of the school. The Industrial Conference of 1908 suggested the establishment of a leather trade school with which should be associated a small tannery in which efficient practical instruction could be given. It also considered that provision should be made for technical education in tanning, and that in the school experiments should be made to determine whether or not the status of the tanning trade could be improved. Mr. Guthrie in the scheme he drew up for the school adhered faithfully to these ideas. His proposals were summarised thus:—

(1) The first aim of a leather trade school in India should be the improvement of the manufacture of leather for use in India and the school should be worked as a small tannery manufacturing all the principal classes of leather used in India. N.B. Mr. Guthrie considered that except in the type of tools used and in the treatment of water there was very little to be taught to the export tanners of Madras, and it was for this reason that he proposed to confine his attention mainly to the manufacture of leather.

(2) The course for students should be a two years one, the first year being devoted to tanning and the second to currying and finishing.

(3) A Laboratory for the control of the practical work in

the school, and also for consultation and research work should be built in connection with the school. In this laboratory one or two graduates would be trained as leather trade chemists.

(4) As far as possible only the sons of tanners and others having some knowledge of the trade should be accepted as students.

(5) Fees should be charged so as to keep away men who have no idea of continuing in the trade.

(6) The school and machinery should be available to tanners for experimental work and to house the central idea of the school was that it was to be run as a small tannery in which small packs of all the principal kinds of leather made in India should be worked up in turn.

Mr. Guthrie in his original proposals contemplated only a few lectures. Vide paras 5 and 6 of his note printed in G.O.

613 dated 10th July 1912. The proposals were generally approved in the above G.O.

The following being the important passages of the order:-

The main feature of the scheme consists in the opening of a tannery where theoretical and practical instruction in tanning will be given to students, and of a laboratory attached to it for consultation and research work and for controlling the practical work of the school. The work of the school should be confined for the present to the training of the operatives and no attempt should be made to train experts in view of the few openings that exist for such men. The Government approve the method and period of instruction proposed for operatives.

They agree that admission should be restricted to sons of tanners and others with a practical experience of the leather trade who have a good general education. No educational test will be prescribed for admission and the selection of students will be left to the discretion of the Superintendent of the school.

Thus the main object of the school was the improvement of the methods of manufacturing leather in India, and the conception of the school course was that it should consist mainly of practical work in the school tannery, this practical work being

supplemented by some theoretical instruction and by laboratory checks on the processes in the tannery.

3. The school as it is now run. The main point for examination is how far this conception has been adhered to in actual practice. There are one or two preliminary difficulties requiring notice.

In the first place it should be noticed that when the Leather Trade School was proposed by Mr. Guthrie, it was under contemplation to build near Perambur a Government Technical school, and the Leather Trade School was merely a branch of this school. Thus the idea was that the theoretical instruction should be given in the technical school, and the practical work done in a model tannery attached. The idea of a Government Technical School is for the present in abeyance, and its place has been taken at any rate for the time being by the Government Trade School which is being held in a rented building in George

Town. The result is that the tannery has to serve for both the school and the tannery. It is not very big. A plan of it will be found in the prospectus. At the outside, I don't think that it will accommodate more than 12 students. Further the leather trade school now has to be self-contained in the matter of staff instead of being able to depend upon the general technical school for a part of the staff required. Two results follow. The school can take only a limited number of students, and the average cost of those students must be high.

Secondly, undoubtedly a mistake was made in selecting the site of the school. The school has been placed on a site which for the best part of the year is a marsh. And the tanning pits are for the greater part of the year half full of water and are useless for the purpose for which they were constructed at considerable expense.

Apart from these two points however I do not think that the original conception of the school has been as closely adhered to as one would have expected. Just before the school was opened a prospectus was issued, presumably with Mr. Guthrie's concurrence as he had not then left for the Army. This prospectus which was never submitted for the approval of Government, makes some

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departures from the scheme which had been approved by Government.
Candidates for admission to the school instead of being admitted

at the discretion of the Principal are required, if they have
not already passed the Intermediate Examination, to pass an
entrance examination. Admission is not restricted to

sons of tanners and persons connected with the trade, though
preference is given to such persons. Moreover the course

has been lengthened to 3 years, and more lectures are provided
for than Mr. Guthrie originally contemplated. This departure

from the original scheme was apparently due to the fact that it
was found that the first year with an ordinary student would have

to be devoted to a preparatory training mainly in pure science
and presumably this accounts for the adding of an extra year to

the course. The scheme of work in the ~~course~~ prospectus is
as follows:-

First Year.

Lectures in general science (2 days a week plus 2 revision
or tutorial classes), book keeping (2 days a week) and element-
ary engineering (2 days a week).

Practical Attendance at all practical demonstrations.

Teaching in the use of tools, and in simple methods of chemical
control.

Second Year.

Students to attend a course of lectures in the principles
of leather manufacture (2 days a week plus one revision class)

, also all practical demonstrations and to be allowed to make
practical experiments on an experimental scale. To be taught

further methods of chemical control.

Third Year.

Students to attend lectures on methods of tanning (2 days

a week) and on currying and finishing (2 days a week). They will
be expected to keep an account of cost of all materials used in

the tannery and will be taught the use of such tools as they have
not already learnt. Those who wish to specialize will be allowed

to carry out experiments provided they supply their own materials.

It will be seen that the practical side of the school was
given the greater prominence, and it was the intention, I think

from the remarks on practical work on page 5 of the prospectus
that the practical work should be done largely by practical

tanners, the students only being allowed to do those processes
where great skill and experience is not required. See para 5

of Mr. Guthrie's note printed in the G.O. I referred to above.

In actual practice however I find that the prospectus is
not being adhered to. From my examination of the time table I

find that the scheme of work at the school is as follows:-

Subject	1st year.	2nd year.
Practical work.	12	12
Engineering.	3	2
Book-keeping.	3	2
Chemistry.	3	3
Laboratory.	7	6
Principles of Leather manufacture.		

28 hours a week

Mr. Kurupp explains that lectures in engineering, book-keep-
ing and chemistry were carried on into the third year because the

courses were not finished in the first year. The real explanation
is

I think partly that the tannery is not really being worked in a
practical way, most of the actual tanning work being done by a

tanning cooly and the finishing and currying by the students them-
selves, partly that Mr. Kurupp has only a chemistry lecturer and a

book keeping clerk to help him. Consequently when he is engaged
in lecturing to one year's class, he gets rid of the other by

having them lectured in chemistry or book keeping with the result
that the school is more a school than a tannery. Judging by

results however moreover the practical work of the school is not
very good. Mr. Mason has not given a favourable report on the

samples of leather made at the school, and though the school is an
extremely expensive undertaking the sale proceeds of manufactured

articles are practically nil.

As regards the class of students we are attracting to the school, I note that there ~~are~~ are at present 5 students at the school, 3 in their 2nd year, and 2 in their first. 3 of these students come from Northern India, are all sons of persons connected with the leather trade. Only 2 come from Madras. One is the son of a General merchant and may or may not take to tanning. The other has no connection with the trade.

For the ensuing years course I have received 7 applications, and of these the following are eligible for admission:-

- (1) V. Ramamurthi, belongs to a tanning family which owns a tannery at Ranipet, holder of a Secondary School Leaving Certificate.
- (2) Amir Hussain engaged in the leather trade, has passed the Matriculation examination. Comes from Vellore.
- (3) Muhammad Yakoob, son of a Hide and Skin merchant, Lahore. Failed F.A.

If these candidates are accepted we shall have 8 students at the school, 4 from Madras and 4 from N. India, and 6 of them either the sons of tanners or connected with the tanning trade.

The cost of the school is very excessive. In the first year of its existence when there were only three students, it cost Rs. 7,985, that is at the rate of Rs. 2662 per student per year. In the year that is just over the cost of the school was Rs. 13,146/- or Rs. 2,629/- for each of the five students.

Summary. It must be admitted that up to date the school has hardly justified its existence. As a research institution it is a failure or rather no research work has yet been done. As a school, it has so far attracted only a few students, and those students hitherto have come mostly from the North of India, so that the school has not yet done this Presidency much good. The original scheme of the school has not been adhered to sufficiently closely, and there is reason to doubt whether the instruction now given is sufficiently practical. At the same time

the school is costing Government a lot of money and it is doubtful whether Government are getting their money's worth.

5. Remedies suggested. I have already pressed upon Government the desirability of getting Mr. Guthrie back from the front, and this, I think the chief thing that is wanted. The school was established on the lines suggested by him, and it is up to him to make it a success. I think that he will. In the meantime, pending definite orders on this point, I think that the question (1) of extending the accommodation and (2) of the tanning pits can lie over. Also I think that for the present it is undesirable to make any change in the conception of the school as proposed by Mr. Guthrie and as accepted by Government. On the contrary the main thing to do is to see that that conception is more rigorously adhered to. The lectures should be cut down. I have no objection to the first year men being given a sort of preliminary course in science, and book keeping. The elementary engineering may go out altogether. It is very much of a farce, and entirely useless.

The students can pick up all they want to know about the adjustment and working of the machine in the course of their practical work. Possibly it may be found necessary to give the 2nd year men an hour or two's science a week, but the main work of the school should be the practical working of leather on as commercial lines as possible. The Principal should give only 6 hours lectures a week, two in each of the subjects of methods of tanning and currying and finishing to the 3rd year men and 2 lectures a week on the principles of leather manufacture to the 2nd year men. All the rest of the Principal's time should be taken up in practical work and in the laboratory.

The practical work will consist, as the prospectus contemplated of the manufacture of small packs of leather from the raw material to the finished article. The leathers made will be sole, harness, all classes of boot upper leathers, from heavy russet to lightest glaze and red morocco, leather for drawing water, upholstery, bags, trunks and so on. Mr. Kurupp will be solely responsible for the work and should be ^{assisted} ~~as~~ by practical and skilled tanners. The students should be allowed to assist only when there is no risk of their damaging the material. But they should be taught

use of the tools required for the various processes, and attend the demonstrations and carry out the tests and make the note referred to on page 5 of the prospectus. The most careful accounts should be kept of the cost of each pack, and the finished leathers should be sold. Orders should also be accepted. The school is so small the interference with private trade will be negligible. At any rate ~~unless~~ the school is run as far as possible on true commercial lines, I do not see how we can expect to give the students anything of a proper training. It would be a first step towards reform if when the school re-opens after the vacation work were to begin each day at 6 A.M. or at whatever hour work usually begins in the tanneries in Madras.

6. The question of research work must lie over until Mr. Guthrie comes back, and unless the staff is increased I do not think that it is ~~impossible~~ possible to start at present classes for working tanners.

Chun
Director of Industries.

24/4/15

NOTES.

DEPARTMENT OF INDUSTRIES

MADRAS TECHNICAL INSTITUTE

WASHERMENPET BRANCH

LEATHER DEPARTMENT



MADRAS
PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS

1915

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DEPARTMENT OF INDUSTRIES. 10

MADRAS TECHNICAL INSTITUTE

WASHERMENPET BRANCH.

LEATHER DEPARTMENT

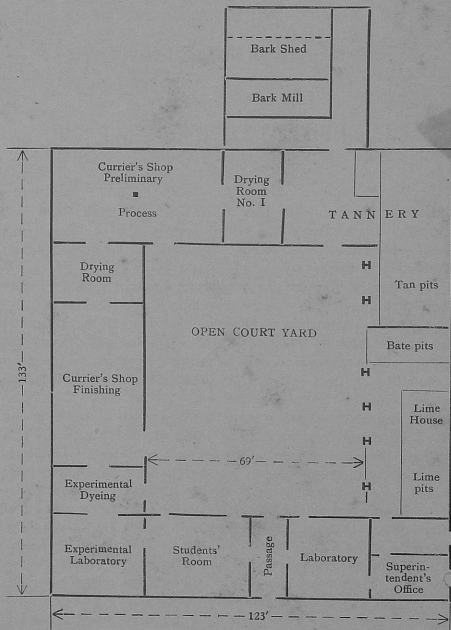


MADRAS:

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS

1915.

PLAN OF MADRAS LEATHER TRADE SCHOOL



MADRAS TECHNICAL INSTITUTE.

LEATHER DEPARTMENT.

SITUATED near the junction of Tiruvottiur High Road and Kativakam High Road, this school is very easy of access as the trams pass within two hundred yards and Washermenpet station is but little further away.

The Leather Department consists of an almost square single storey building as shown in the preceding plan.

Until the completion of the main building of the Technical School the students' room will be used for lectures. When the main building is finished it is intended to remove the Chemical Laboratory and lecture room there, the room now set apart for the laboratory being then put to other use.

The lime-house contains a number of soak, lime and bate pits all above ground level, so as to be easily drained, together with a washing drum and paddle, whilst knives and beams for unhairing, fleshing and scudding of both European and Indian patterns are provided for instructional purposes. In the tannery there are a set of leaches for extracting bark, six pits for suspending hides and fifteen pits for handling or laying away hides and skins. All these pits drain into a well from which liquor can be pumped by means of a brass centrifugal pump. A tanning drum and paddle are also provided. The currier's shop is provided with machines for stoning, shaving, splitting, glazing, staking, and fluffing and with drums for dyeing and stuffing. The necessary hand tools for each process tables and drying room are also provided.

The Experimental Dyeing room and Laboratory are fitted with small drums, etc., so that experiments can be carried out on quite a small scale and students will be taught the methods of using various dyes, etc., before being allowed to carry out tests on a larger scale. The Chemical Laboratory is fitted with the necessary apparatus for the thorough examination of materials used in the various processes of leathers manufacture and for research on subjects connected with the leather trade. The Chemical Laboratory will be open only

to students with a sufficient knowledge of chemistry and those who intend to specialise as Leather Trade Chemists, but ordinary students will be taught the simpler methods used in chemical control and the necessary apparatus for this will be found in the Experimental Laboratory.

The bark store and mill are in a separate building at the rear of the tannery.

SESSION.

The school year will date from about June 20 and there will be vacations from April to June, and at Christmas.

ADMISSION.

In general students will only be admitted at the beginning of June term and the application for admission must be made not later than 1st March of every year. Application forms may be obtained from the Principal. The applications must be accompanied by a letter of recommendation from the applicants' employers or the Headmaster of the school last attended and a certificate of physical fitness signed by a qualified medical officer. Candidate must not be under 16 years of age and if they have not passed the Intermediate Examination of a recognised University will be required to undergo an entrance examination.

ENTRANCE EXAMINATION.

The entrance examination will be held in Madras and will consist of the following:—

- (i) English composition (a short essay to be written on some subject of general interest) (1 hour).
- (ii) A short oral examination in English.
- (iii) Mathematics, Arithmetic and Algebra (1 hour each paper).
- (iv) Science.

All candidates will be required to attain a certain standard in Nos. (i—iii), but failure in No. (iv) will not cause any candidate to be rejected provided that he also does not show general weakness in Nos. (i—iii).

Admission will be strictly limited to the accommodation available, and candidates who already have some knowledge of the leather trade, sons of tanners and others employed in the trade will have preference over those who have no connection with it.

FEEs.

The fees will be Rs. 60 per annum and must be paid in advance.

LECTURES.

I. General Science (by Senior Assistant).—Lectures two days a week with two additional revision and tutorial classes when students will be asked questions on the lectures they have heard and may ask for further information on points not understood by them.

This course is intended to enable such students as have not a sufficient knowledge of chemistry and physics to take full advantage of the lectures dealing directly with leather manufacture.

The subjects dealt with will be chiefly chemical, but a certain amount of other sciences, a knowledge of which is necessary, will also be taught.

II. The principles of leather manufacture (by the Principal).—Lectures two days a week with an additional tutorial class when question may be asked on any points dealt with in the lectures which the students do not quite understand. The lectures will combine the following subjects:—

Hides and Skins.—The sources of supply and methods of cure and use of antiseptics.

Soaking and washing of hides and skins.

Liming. The action of lime and its action on the skin, hair, etc.

Unhairing, fleshing, etc.

Differences due to different limes.

Other depilants.

Removal of lime. Working in water, bating, puering and drenching, scudding.

Vegetable tanning materials, methods of use with special particulars regarding Indian materials.

The use of vegetable materials, for the tannage of different classes of leathers such as sole dressing leathers, skins, etc.

Alum and the methods of use for white leathers, skins, etc.

Chrome tannages. "One" and "Two" bath methods, materials used and results.

Other mineral tannages.

Oil chamois leathers, fat leathers.

Formaldehyde and other organic chemical tannages.

Combination leathers (particularly with reference to the retanning of E.I. tanned stock).

III. Methods of tanning (by the Principal).—Lectures two days a week throughout the session dealing with the following subjects:—

Indian methods—

Soaking and liming.

Bag tannage.
Tub tannage.
Other Indian methods.

Other methods—

Sole leathers.
Dressing leathers.
Skin leathers.
Chrome and other mineral leathers, etc.

IV. Methods of currying and finishing.—Two days a week throughout the session dealing with the following subjects:—

Rounding, scouring, shaving, splitting and setting.
Stuffing and fat-liquoring.
Dyes and their application. Effects of various impurities in water, etc.

Finishing, glazing, staking, etc.
Machines used in the trade.

V. Book-keeping.—Two classes per week.

VI. Elementary Engineering.—Lectures two days a week.

PRACTICAL WORK.

During the year small packs of all classes of leather for which there is a demand in India will be manufactured from the raw material to the finished article and the students will be taught the use of the tools used in the various processes and will themselves, as far as possible, do all the work in connection with the various processes. Whilst these leathers are in process students will test the liquors, etc., used, and take note of quantities used, etc., and will, where possible, carry out small parallel experiments in the experimental laboratory using different quantities, etc., so as to be able to see what effect these differences make on the finished article. Senior students will also be expected to go into the question of cost of the different processes.

Students who wish to carry out experiments on a small manufacturing scale will first of all have to satisfy the Principal as to their capability for carrying out these processes and will only be allowed to carry out experiments that do not interfere with the general practical work of the department.

The work in the experimental laboratories will comprise testing of various materials used, and experimenting on a small scale, especially with the idea of showing how different faults arise and how these can best be avoided or remedied.

THREE YEARS' COURSE.

The general course for students will extend over a period of three years for students who have a good general knowledge of science and also have some experience in the manufacture of leather this may at the discretion of the Principal be reduced to two.

Three Years' Course.

First year.—Students will attend the course of lectures on General science (No. I, page 5), on Book-keeping (No. V, page 6) and on Elementary Engineering (No. VI, page 6), they will attend all practical demonstration in the tannery and be taught the use of certain tools used in tanning and currying. The simplest methods of chemical control will also be taught, such as testing acidity and basicity of different liquors, strengths of commercial acids, etc.

Second year.—Students will attend the course of lectures on the principles of leather manufacture (No. II, page 5) and all practical demonstrations in tanning and will be allowed to make practical experiments on an experimental scale. They will also be taught further methods of chemical control such as the valuation of certain chemicals and liquors.

The use of all tools will also be taught, as also that of certain of the machines.

Third year.—Students will attend lectures on methods of tanning (No. III, page 5), and currying and finishing (No. IV, page 6).

Third year students will be expected to keep account of cost of all materials used in different processes in the tannery and will be taught the use of the machines and tools which they have not used before. Those who wish to specialise on any branch of work will be allowed to carry out experiments on a semi-manufacturing scale provided they supply their own materials and do not interfere with the general practical courses being carried out.

Two Years' Course.

First year.—Students taking this course will have the same programme as the second year student taking the three years' course together with the book-keeping and elementary engineering lectures.

Second year.—As for third year of three years' students.

ALAN GUTHRIE,
Principal.

Home (Education) Department.

(C.No.2263 A).

From the Officer in charge of the Department of Industries, G.O.No.1 Camp., dated the 18th June 1917.

Subject.

Proposals for the working of the Leather Trade School.

page 1 to 6 of cf.

Mr. Innes submits proposals for the better working of the Leather Trade School. Though the school has not so far proved a success, yet it appears desirable to continue it for the reasons explained in the Hon'ble Sir Alexander Cardew's note dated the 3rd June 1912 (written as Chief Secretary) on pages 8 and 9 of notes to G.O. No.

- ✓ 613, Educational, dated the 10th July 1912, and in paragraph 13 of Mr. Innes' report on page 6 of
- Ⓜ G.O.No.448, dated the 5th April 1917.

2. Under the proposals now submitted the students will devote most of their time to practical work and the school will be run as a small demonstration tannery more or less on commercial lines. Attention is solicited to the under-mentioned papers:--

- (i) Paragraph 2 of Memorandum No.157-2, Edl. dated the 15th February 1911, on page of G.O.No.269, Edl., dated the 8th May 1911.

- (ii) Paragraph 2 of Mr. Chatterton's letter No.196-I, dated the 1st March 1911, on page 7 of G.O.No.269, Edl., dated the 8th May 1911, and the orders issued in paragraph 2 of the G.O.

- (iii) Paragraphs 5-7 of Mr. Guthrie's report on pages 7 and 8 of G.O. No.613, Edl., dated the 10th July 1912.
- (iv) Paragraphs 1 and 3 of G.O.No.613, Edl., dated the 10th July 1912, and paragraph 7 of the office note on page 3 of the notes to the G.O.

The proposals appear to be suitable and may be accepted. To avoid interference with private trade, Mr. Innes proposes to limit the daily consumption of hides in the school.

3. M.R.Ry. Raghava Kurup has been appointed in the place of Mr. Guthrie to be in charge of the school. Though Mr. Guthrie has returned from military duty, he is now working under the Munitions Board and is not therefore available for regular work in the Leather Trade School. Mr. Innes therefore proposes to engage temporarily the services of M.R.Ry. P.K. Rajamanikkam Nayudu, a State technical scholar, who has recently returned from England, to assist Mr. Kurup in running the tannery and in laboratory and research work, as such assistance is considered to be essential for the working of the school on the lines proposed by him. There is a sanctioned post of assistant on Rs.100-5-150 per mensem in the school which is left vacant. Mr. Innes proposes to give the maximum pay of the appointment to the candidate. In view of the qualifications possessed by Mr. ^{Rajamanikkam} Nayudu the rate of pay proposed does not seem to be high and it may, it is submitted, be approved.

4. Mr. Rajamanikkam's employment may be sanctioned temporarily on a pay of Rs.150 per

p. 12 of the f.o. (V)

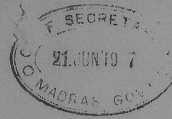
p. 3 of cf.

40. No. 154 / 12.2.16 (X)

Please see linked file.

para 7, page 4+5 cf.

mensum. There is full year's provision in the budget for 1917-18 for the assistant on Rs.100-150. Mr. Rajamanikkam's pay during the current year may be met from it. A draft order is submitted for approval. It may be sent to the Financial Department for acceptance.



SA
21.6.17.
AM
21/6/17

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Recd 21.6.17

File no 4745-1
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Accepted in this

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Submitted for orders as to the issue of the draft order

SA
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23/6/17

No.2263 A. From the Officer in charge of the Department of Industries,
G.C.No.1 Camp., dated the 18th June 1917.

ORDER:
M.S.

N^o 8398 23.6.17.

The Government approve the proposals
submitted by the Officer in charge of the
Department of Industries for working the
Leather Trade School at Madras. They also
sanction the proposal to employ M.R.Ry.
P.K. Rajamanikkam Nayudu temporarily as
first assistant in the school on ^(the maximum pay of the post) Rs.150/
per mensem.

Officer in charge of the
Department of Industries
Accountant General,
thru' the Finl. Department.

(ato)

25/6

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LETTER OF GOVERNMENT.

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