

Eol (191st) Department.

his SERIES.

G.O. No. 307 Eol

DATED 17-3-15

✓

[Despatch Abstract.]

Report

Recording the — submitted
by the Director of Industries on the
results of the pencil smaking
experiment carried on at
Cocanada —

Est Department

Read again

Gr. No 98-99 Est of the 1st Feb 1915

Items No. 411-1 Est
5.2.15.

The Director of Industries
is requested to submit
a report on the results
of the pencil-making
experiment carried
on at Bocanada for
the past three months.

SK
2.2.15. AK
2/2/15

Apr 4/2 ✓

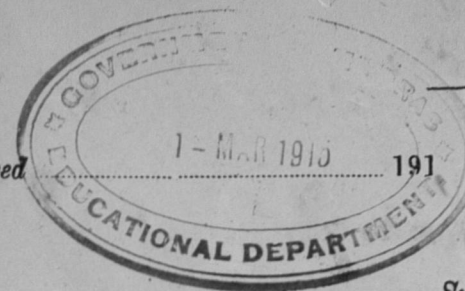
Noted in CB

8/2/15

To Est
The S.I. 4/2/15
KPS 8/2/15
BMS

DEPARTMENT.

Received



191

Registered

3

1915.

Subject.

SUBMITTING REPORT ON THE PENCIL MAKING EXPERIMENTS.

ENCLOSURES.

No. _____

No. 87

Spare copies _____

Station MADRAS, Dated the 25th FEBRUARY, 1915.

From (Name) K. T. B. TRESSLER, ESQ.
(Designation) AG. DIRECTOR OF INDUSTRIES

To The Secretary to the Government of Madras,
EDUCATIONAL Department.

Sir,

I have the honor to submit the following report regarding the pencil making experiments conducted in this Department.

2. During the Swadeshi boom of 1907-8, a considerable amount of money was spent on the purchase of pencil making machinery, which, however, the owners were unable to work. Having secured the free loan of a complete plant, originally worth Rs. 40,000, I decided that it was worth while spending a few thousand rupees on investigating the question of manufacture.

3. The problems connected with Pencil manufacture are of five kinds, namely,

- (1) supply of raw material,
- (2) treatment of raw material,
- (3) mechanical processes,
- (4) profitable manufacture,
- (5) disposal of the manufactured article.

The original owners of the plant solved none of these problems and could not be expected to do so as they had no idea whatever of scientific analysis. I had seen some of the plants previously and the most important defect which I observed was that the pencils were extremely badly finished; the lead was not properly centred and generally the manufacture was indifferent. I decided therefore that the first point to be settled was the question of mechanical processes, and as at this time a Pencil making Expert happened to be available, I engaged his services. About Rs.2000 was spent on putting the plant into order and the manufacture of pencils was undertaken.

4. I enclose one dozen pencils made in the factory, from which Government will observe that I can reasonably claim to have mastered the technique of manufacture.

5. The next question ^{is} the preparation of raw materials. I consider that the problem of the preliminary treatment of wood has been solved but the problem of preparing graphite has not. The latter is a chemist's job and Professor Erlan Smith very kindly undertook to investigate it for me. Unfortunately, Professor Smith is now in hospital with enteric fever and until he comes out again I can make no progress. The difficulty is that the graphite available contains a large percentage of impurity which has to be removed.

6. As regards ~~the~~ manufacture at a profit, my working data so far give me the following results:-

With wood at as.10 a cubic foot and pencils selling at Re.1 a gross wholesale, the monthly profits excluding interest and depreciation on an outturn of 30 gross a day, is Rs.200. On 50 gross Rs.600/- and on 70 gross Rs.1000. With pencils selling at as.12, the profits are nil, Rs.300 and Rs.600 respectively.

At present I am working only one of the plants available, but with both, there should be no difficulty in turning out 60 gross a day, giving a gross paper profit of Rs.800 per mensem, or 25% on nominal capital. This may be regarded as equivalent to an actual profit of about 10%. My experiments therefore have satisfied me that, if I can get wood at as.10 a cubic foot in sufficient quantity and if I can sell at Re.1 a gross, pencil manufacture is a commercial proposition. If I can sell at as.12 a gross, the paper profit would be 12½% and probably the actual profit about 5 or 6% so that the undertaking will still be profitable.

7. I should like to explain to Government that a first approximation of costs based on actual experience is a most important thing in any industry and that the information I have obtained on this point is, in my opinion, well worth the amount spent on the investigation.

8. The experiment having reached this point, what has now to be done is to settle the problem of graphite and raw materials. The former, as I have said, is a chemical problem for the solution of which I must look to Professor Smith. The latter is a forest problem the solution of which I must leave to the Forest Department.

9. From the beginning, the Conservator of Forests, Northern Circle, has been giving me a great deal of assistance and has sent down a very considerable number of samples of wood for trial. In accordance with scientific principles not more than one variable must be introduced into a problem at a time, and during the whole period that I was investigating the technique of manufacture, I confined myself to one class of wood. The technique period finished a month ago, and since then I have been trying other kinds of wood. The Forest Department have told me what they can supply and what I am now doing is to try and reconcile supplies and requirements. It is quite out of the question to use one kind of wood only, because no gregarious wood is

available and the cost of collecting one particular variety excessive. I must be able to use two or three varieties that grow together and that the Forest Department can easily supply. Otherwise the industry will end like the Calcutta industry where they used a very good wood available in considerable quantity but so scattered that it could not be collected.

10. I have also written to Forest Officers in other parts of the presidency and expect that in about 3 more months I shall be able to decide whether or not Pencil Manufacture--so far as raw material is concerned--can be regarded as a commercial proposition. Of graphite, I have ample supplies in Tuni and Godavari.

11. As regards the disposal of the pencil, I have had three or four applications already from wholesale dealers at fair prices and I believe that, when I get the graphite right, I shall have no difficulty in disposing of the manufactures in the factory, provided I can obtain the necessary raw material.

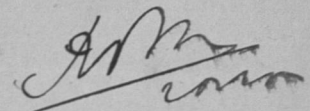
12. To sum up, I have satisfied myself that the process of pencil making can be worked and that it could be carried on at a profit provided that I can secure an adequate supply of raw material and provided I can treat my graphite properly. These two points I am now investigating and it will take me another three months at least to decide them. What I can do now is to turn out about 20 gross of quite well-made pencils per day; but as the graphite is not yet quite right and as the supply of raw material has not yet been settled, it seems to me scarcely worth while attempting commercial production. The problems remaining to be solved are outside Mr. Lubber's sphere and I do not require him therefore any longer. I shall retain a few of my trained men in the factory at a cost of about Rs.150 a month. Beyond this, for the next two or three months, there will be little expenditure except for the pay of the Supervisor and mechanic and the purchase of sample lots of wood. I have reckoned that the next 2 or 3 months' work should not cost more

than about Rs.2000. If my experiments prove satisfactory, I shall then have to apply to Government or to private enterprise for sufficient capital to launch properly.

I have the honor to be,

Sir,

Your most obedient servant,



Ag. Director of Industries.

(A)
Extract from the notes connected with G.O.No.98-99
Edl.Mis., dated the 1st February 1915, regarding
the temporary employment of Mr.Luber as pencil
expert in the Madras Presidency:

x

x

x

What can be said as to the results of this
experiment for the past three months?

P.
25-1-15.

I should like to see the report on the
results when received.

H.A.S.
27-1-15.

Call for ^{*a*}~~the~~ report on the three months'
work.

P.R.
29-1-15.

*A draft memo is submitted for approval.
Please see however the current in the linked file. This
8K contains an account of the experiments; but
2.2.15. 2/2/15 it seems better to call for a full report
separately.*

[Signature]
4/2/15

[Memo No. 11-1 of 5-2-15]

CM 728. From the D.I. N-87 of 25.2.15

pages 2 to 6 of et.

(Please see specially
para. 12. which seems
imp.)

The Director of Industries sub-
mits the report on the results
of the pencil-making experiments
called for from him. The report
may, it is submitted, be circun-
lated to H.E. the Governor &
the Hon'ble Sir Harold Stuart.

SK
2.3.15. CA
3.3.15

Box no. 48
5.3.15

H.E. and Circles

4/3/15

P.
5.3.15.

Mf 6.3.15

A

In his next report Mr. Trenler shd.
give us details of his expenditure
in order that we may judge whether
the industry is likely to prove a
commercial success. It is not a
matter on which we can accept opinion
without data.

Hus
7/3

M
8.3.15

Let me have draft D.O.
to Mr T as at A

SK
10/3

10/3/15

A draft order recording the report
+ a draft D.O. to Mr Dresser are
both submitted for approval.

SK CA
11.3.15 12/3/15

12/3/15

Dr. No. 728-1 Ed
15.3.15

Dear Fresher,

With reference to your letter No. 87, dated the 25th February 1915, submitting a report on ~~the~~ pencil making, ~~the~~ I am directed to state that the Govt. ^{wants} expect another report from you on the subject after the experiment ~~has progressed further~~ ~~is completed~~. I am to request that, in that report, you should furnish details of the expenditure incurred on the experiment so that it may be possible to judge whether the industry is likely to prove a commercial success.

yours sincerely,

SK
11.3.15

CR
11.3.15

Sp 15/7

14/3/15

15/3/15

READ AGAIN G.O. No., dated 191

" " " " 191

READ ALSO:-

C. No. 728, From the A. J., No. 87, dated 25. 2. 1915.

" " " " 191

" " " " 191

ORDER.

mis

No. 307 *mis*, dated 17 3 1915.

Recorded.

SK
11-3-15

CA
12/2/16

Sp. 1575
Int. drafts

[Signature]

To *SP.*

16-3-15
17-3-15
D. J. (GP)

When given for copying
When copied
When examined
When signed

191 .

READ AGAIN G.O. No.
191

DATED

CURRENT No.

ENCLOSURES to C. No.

ORDER OF GOVERNMENT

A A A A A A A

LETTER OF GOVERNMENT.

STATEMENT WITH BITTO.

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL

N.B.—

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