

Home (1916) Department.
(Education)

Ordinary SERIES.

G.O., No. 1091

DATED 17. 10. 16

INDEXED

[Despatch Abstract.]

Pencil experiment,

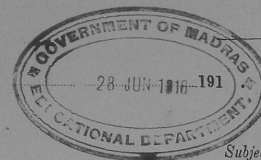
Sanctioning Mr. Couchman's proposal to incur a further expenditure of Rs. 17,000 on the pencil making experiment.

CN. 2231 Ede

G.F.-29.

DEPARTMENT.

Received



Registered

28/6/1916

Subject.

Submitting note on Pencil Experiments.

ENCLOS RES.
No.
.....
Spare copies

No.

Station Madras, Dated the 26th June, 1916.

From (Name) M.E. Couchman, Esq., I.C.S.,
(Designation) Special Officer, Dept. of Industries,

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

Sir,

I have the honor to submit for the information of Government a note giving the present position of the experimental manufacture of pencils.

More experience will be required before it can be said if the industry will pay, but I am not without hopes of success.

I have the honor to be,

Sir,

Your most obedient servant,

M.E. Couchman

Special Officer.



2
3
PENCILS.

In 1908 two pencil factories were started in the Vizagapatam District, one at Bimlipatam and one at Anakapalle. The Bimlipatam Co bought machinery worth Rs.11,000 from Nuremburg. They spent altogether about Rs.28,000 but failed to make pencils and sold the plant for Rs.4,000 to some merchants of Cocanada, the leading man among whom was Rao Bahadur K. Suryanarayanamurti, the proprietor of Messrs Innes & Co. The factory was then started at Cocanada, under the management of one Subba Rao, a student who had been to Japan, and gave his employers to understand that he had studied pencil manufacture there. In reality, he had no knowledge of the business and after about Rs.14,000 had been spent, the pencils turned out were so bad as to be unsaleable. The company now goes by the name of the Godavari Pencil Co and is owned by Mr. Suryanarayana-murti and two others. The Anakapalle Pencil Company was started in 1908 by one K. Narayana Rao with a paid up share capital of Rs.5000 and a loan of Rs.6000 from the Zamindar of Kasimkota. Machinery was purchased from Nuremburg, but the capital was then exhausted and the company borrowed a further sum from the same Zamindar. No expert seems to have been employed and the attempt to manufacture pencils failed and the plant was made over to the Zamindar in payment of the amounts owing to him. It seems then to have been purchased for a small sum by Brother Emile, the Superintendent of the Mission Industrial School at Waltair.

A Supervisor of the Industries Department visited the factories in 1914 and consequent on his report the Director suggested to Mr. Suryanarayanamurti

that a value should be fixed for the plant and building and the whole concern handed over to Government for two years after which time the Government should have the option of buying up the plant at the value fixed or of handing over the plant to the original owners if they formed a company for this purpose. This offer was accepted on 20th Oct. 1914 by Messrs. Innes & Co.

(1)
The terms finally arranged were that/an annual rent of Rs.250 should be paid for the use of the machinery; (2) if the experiments succeeds, Rs.4,000 to be paid in cash or Rs.8,000 in shares to Messrs. Innes & Co.

The Pencil Expert, Mr. Luber, was entertained in October 1914 and sent up to Cocanada and in November of that year Brother Emile agreed to lend the plant of the derelict Anakapalle Co to the Director on condition of being paid Rs.2,000 in cash or Rs.3,000 in shares in the event of a company being formed later on for the manufacture of pencils.

The machinery was erected and put in working order and some pencils made, but it soon transpired that Mr. Luber was only expert at the wood part of the process and did not know how to produce a satisfactory lead from the impure graphite obtained from Tuni. His services were therefore dispensed with at the end of March 1915 and the Supervisor, Ramachandra Iyer, was sent to Bangalore to study the composition of imported pencils with the help of the chemists of the Tata Institute. Graphite was obtained from the ~~hand~~ abandoned mines at Jidiguppa on the Upper Godavari and this was found to be of better quality than the Tuni Graphite. Professor Erlam Smith of the Presidency College helped the Director in his experiments in refining the graphite and, at the present time, the combined efforts of the Director, Professor Erlam Smith and Supervisor Ramachandra Iyer, have succeeded in producing a satisfactory

48. M-98251
1.2.15- (A)
(Remained + found only one
another file)

2

48. M-98251
14.3.15- (F)
(In another file)

lead for the manufacture of pencils.

Supply of raw materials.

Graphite:- The Director has visited the Jidiguppa Mines and has satisfied himself that, although the graphite in sight may not be sufficient to pay a mining company to work the mines, there is ample for the purpose of pencil making, as the manufacture of 300 gross of pencils daily only required 25-30 tons of crude graphite per annum and he has already 18 tons in store in Madras and 10 tons at the mine with another 30-50 tons in sight. He has, at the present time, 10 cwt. of refined graphite prepared and ready for use and the small staff now employed on grinding, purifying and mixing the graphite can prepare 5 cwt. a week, sufficient for the manufacture of about 1600 gross of pencils which is more than the capacity of the plant for dealing with the other processes. There is, therefore, no doubt that a sufficient supply of graphite for maintaining a manufacture of 30 gross of pencils a day, which is all that the Director expects to be able to turn out with the present plant, is available.

Wood:- For the present it is intended to produce cheap white wood pencils and Givotia Rotteriformis has been chosen as the most favorable wood. The District Forest Officer, Coimbatore Central, has offered to supply ^{annually} 5000 c.ft. at As.5 a c.ft. delivered at Coimbatore or Mettupalayam railway station. The cost of bringing this to Madras including loading on the trucks is about As.10 per c.ft.(total cost).

The District Forest Officer, Kurnool, offered to supply 6000 c.ft. annually at any station on the railway line between Digavametta and Guzulapalli at from As.3½ to 4 As. per c.ft. and 3000 at As.4½ at Nandyal railway station.

The District Forest Officer, Salem, has offered 4,000 c.ft. at Rs.6 per c.ft. F.O.R. Salem.

During the experimental working on a commercial scale, it is proposed to make 30 gross of pencils a day. One cubic foot of wood makes 5 gross of pencils. The annual consumption, therefore, at this rate of production would be about 2000 c.ft. of wood. Although the Director estimates that double this production would be necessary to make a profit, it will be seen that there are sufficient supplies of the Givotia available for much more than the estimated annual requirements.

It is also proposed to make a small number of Cedar wood pencils. The Equator Saw Mills of Molo in British East Africa can supply large quantities of pencil Cedar (*Juniperus Virginiana*) at Rs.5/- per c.ft. and an experimental shipment of this has been received and satisfactory pencils made from it.

Expenditure.

The expenditure up to the present time has been as follows:-

	Receipts.	Expenditure.			Total Cost.
		Staff	Experi- mental	Capital	
		Rs.	Rs.	Rs.	Rs.
1914-15		2165	3628		5793
1915-16		2616*	4217	6413	10630
1916-17 (April & May)		200	183		383
TOTAL		2365	8028	6413	16806

* This figure represents the pay and allowances of the Supervisor which is met from the allotment of the Pumping Department. It is therefore not a charge on the experiment.

There are also the following outstandings the bills for which have not come in yet.

Equator Saw Mills for Cedar wood	Rs.577-8-0
District Forest Officer Coimbatore for 500 c.ft. of Givotia	Value not known.
Do. Kollegal for 20 tons do.	Cost may be put at Rs.500
Do. Coorg for 50 c.ft.	

One year's rent for machinery
due to the Godavari Pencil Co. Rs.250

Taking the cost of the Givotia delivered in Madras at Rs.0-6-0 per. c.ft. the total value of the Givotia would be Rs.580 and this added to the cost of the Cedar makes a total of Rs.1157, which brings the total expenditure to date Rs.18,213.

In G.O.No.346 Edl. Mis. dated 29-3-16, the total expenditure on pencils was limited to Rs.20,000.

It will be seen, however, that the experimental expenditure proper has only been Rs.8,028. To this must be added the pay and allowances of the Pencil Expert, Mr. Luber, Viz. Rs.1,870. The shed, which is represented by the item Rs.4,200, cannot properly be debited to the Pencil Experiments, as it is intended for the accommodation of the Trades School, when the pencil experiments have been concluded. The rest of the expenditure on staff is accounted for by the pay of the Supervisor in charge, which is debited to a different head (Pumping Establishment). The total expenditure on Pencil Experiments proper comes to Rs.14,013, leaving a sum of Rs.5,987 which should be sufficient for about 6 months' work.

M. Conchun.

Officer on Special Duty.

16806
1157
250
18213

18213
4200
14013

DEPARTMENT.

Received



191

Registered

191

Subject.

Applying for sanction of an additional allotment for
Pencil Manufacture.

RNJLOS RES.

No.

Byare copies

No. E //

Station Madras, Dated the 18th September 1916.
19.

From (Name) M. E. Couchman, Esq., I.C.S.,
(Designation) Director of Industries, Madras.

To The Secretary to the Government of Madras,
HOME (EDUCATIONAL) Department.
Through the Accountant General, Madras.
Sir,

In G. O. No. 346 dated 29th March 1916 the Government directed that the expenditure on pencils should not exceed Rs.20,000. Up to the present time, including the existing liabilities, the expenditure comes to Rs. 19,400. As has been pointed out to Government, a portion of this vide my note on pencil experiments E.11 dated 27-6-16, expenditure was incurred on building ~~and~~ ^{freight} etc., and only a sum of Rs.15,200 may be considered to have been spent on the head of "Pencil Experiments".

2. Regular manufacture on a commercial scale is now going on, with an outturn of 30 gross per day. Although the results obtained hitherto are ~~very~~ promising we have not yet reached the stage when the factory can be handed over

page 6 infra.
19,400
- 4,200 (building)
15,200

Company are going
to a private concern. Before this can be done further experimental work is necessary in regard to the following points:-

(1) To find out a better local wood for cheap grade pencils in preference to the present Givotia which is not quite satisfactory.

(2) To find out if the present method of manufacturing the lead ~~cannot be~~ cannot be improved upon and to see ~~whether~~ if a cheaper and less tedious process cannot be evolved for refining the graphite.

(3) To bring about improvements for obtaining a better finish on a working and workable scale.

• (4) To give a fair training to a body of artisans who will carry on the industry in future.

(5) To make out an accurate calculation of the cost of production by actual manufacture on a fairly large scale.

3. I therefore request that the Government will be pleased to sanction a further expenditure of Rs.17,000 in order to carry out these experiments and continue the manufacture to the end of March 1917.

4. The necessity for the additional expenditure is due to the following causes:-

The pencil Factory is now located in a shed originally built for the mechanical section of the proposed Madras Trades School. The graphite is stored in a small shed adjoining it, the wood sawing machinery is placed in the Leather Trades School and some rooms in the Leather Trades School building have to be utilised for storing the manufactured pencils and other items. The shed itself used for the factory is open, except for a screen of split bamboo tied vertically between the pillars which affords no protection against rain. The result is that, when heavy storms and rains occur, the water drives right into the building and great loss has occurred on some occasions by damage to the pencils during the course of manufacture and to the materials

lying about in the factory. The machinery also needs protection against the weather. The sides of the shed therefore require to be protected by fixing corrugated iron sheets to keep out the rain. The floor of the present building is only beaten earth. This causes a good deal of dust and dirt to fly about which damages the machinery and is bad for the manufacture. The space inside the factory is quite inadequate when all the machines are being worked to their present full capacity.

The graphite shed, which is too small, also requires side protection with iron sheets against rain. The enclosed estimate shows in detail the manner in which it is proposed to spend the sum now asked for. I regret the necessity for exceeding the allotments sanctioned by Government for expenditure on pencils, but ~~but~~ I have ~~much~~ strong hopes that the experiments will be successful if this increased grant is sanctioned. We have already obtained an order for 500 gross of Cedar pencils from the Superintendent of Stationery which is a good testimony to the quality of the better class of pencils now being turned out by the factory. The lead in the cheaper pencils is also quite satisfactory, and pencils can be sold in the local market at about annas 14 a gross, which is a little more than is asked for the cheap Japanese pencils, which are now flooding the market. The Givotia wood however, from which they are made is unsatisfactory. It has a bad colour and ^{it} is rather difficult to sharpen the pencils. We are, therefore, experimenting with a number of other cheap grade woods with a view to find out a substitute for the Givotia which we are using at present. Already one European firm is anxious to take up the sale of the pencils on a sale agency, presumably satisfied that there is the making of a profitable business in it. The following is the estimate of the

expenditure required.

(i) Productive or revenue Rs.

(1) Cedar wood from East Africa including freight and all charges to site of Factory	7,000
(2) Country wood for cheap grade pencils	2,000
(3) Skin Glue, 12 Cwts.	600
(4) Clay and borax	150
(5) Fuel and lubricating oils	550
(6) Renewals of cutters etc.,	250
(7) Boxes and petty stores	450
(8) Labels, twine, stamps, wax etc	250
(9) Labour at factory	2,500
(10) Contingencies and unforeseen	250
	<u>14,000</u>

(ii) Non-productive or Capital

(1) Erection of a shed 60' X 40' out of materials available at the glass factory	350
(2) Raising the floor level of the shed	100
(3) Weather protection for the Iron sheds part of the materials being available at the glass factory	500
(4) Extension of graphite shed- materials being available from the present refining shed of the Pencil Factory	100
(5) Erection of a graphite refining shed materials being available at the Glass Factory.	100
(6) Cuddapah slab flooring for graphite refining including materials	150
(7) Flooring with a 3" layer of concrete at the lead room and finishing sections of the Factory	200
(8) Extra cooling water tank, portion of the materials required being available in the form of a boiler shell	100

(9) Temporary graphite refining drainage	150
(10) Balance, furniture etc.	250
(11) Additional supports for the present 2" line shafting of the cutting machines	250
(12) Experiments on graphite	500
(13) Experiments on wood	250
	<u>3,000</u>

5. It will be seen that only Rs.3,000 of this is capital expenditure. The rest is required for working capital, which it is estimated, will give in return receipts amounting to Rs.14,000 by sales of pencils up to the end of March, in addition to an estimated, balance of Rs.3,750 represented by the stock of timber which will remain unused at the end of the time. The production could be increased if a larger engine was installed, but to avoid all expenditure which is not absolutely necessary I propose to go on with the present engine.

6. The amount can be met from the allotment for Miscellaneous Experiments under the head "26 Bm. Scientific etc. Departments-Director of Industries in the current year's budget estimate.

The favour of very early orders is requested.

I have the honour to be,

Sir,

Your most obedient servant,

Mr. Conchinn

Director of Industries.

4,000-10-11-15.

OFFICE OF THE ACCOUNTANT-GENERAL, MADRAS,

Fort St. George, the 2nd of October 1916

No. Tri.P.A. - 12783

ENCLOSURES: (1)

Forwarded.

2. There is no audit objection to the proposal being sanctioned by Government.

For Accountant-General.

To

The Secretary to Government,

Home (Educational) Department.

Pencil Making.

Shortly after the war broke out the Director of Industries obtained the use of a pencil making plant at Cocanada and the services of Mr. Luber (a pencil expert) were engaged for about six months on a daily rate of wages of Rs. 10. Mr. Luber was able to advise only in regard to the mechanical portion of the business. The selection of suitable wood and the refinement of graphite were taken up by the Director after Mr. Luber's services were dispensed with. In regard to wood the Director selected certain samples and then proceeded to obtain them in bulk to see what the cost would amount to and also whether they would prove satisfactory on a large scale. He also ordered one or two sample lots of cedar wood from British East Africa to consider the possibility of higher grade pencils. As regards graphite he deputed one of his supervisors to the Indian Institute of Science, Bangalore, to carry on experiments in its refinement. In November last he stated that research on graphite was complete so far as cheaper pencils were concerned. In a letter dated the 19th April 1916 he stated that he could obtain suitable supply of timber and graphite and that he had ascertained prices within about 10 per cent.

40. No. 98-551 (A)
1. 2. 15
(Removed & put up with another file)

Page 1 & 2 of No. 545-57
22. 5. 15

para 3, page 2 of No. 346
27. 3. 16

para 3, page 2 of No. 1186
2. 11. 15

para 3, page 2 of No. 1186

in a note written to the Dep. Commr. re No. 1186

page 3 of No. 526
18. 5. 16 (E)

Towards the close of the year 1915 the Director removed

para 6, page 399. (D) the pencil machinery from Cocanada to Madras and erected it

in a building in the compound of the Leather Trade School at

Washermanpet. In November 1915 he wrote to the Government

enquiring whether they would be prepared to continue the

business or whether he might form a private company for the

purpose on certain terms. In G.O.No.342 Edl., dated the

(C) 29th March 1916, he was asked to bring the experiments that he had undertaken to completion and to report the results to the Government as soon as possible. The report is awaited.

From a note dated the 19th April 1916, submitted by him

page 299. (E) it is observed that the total expenditure incurred on this

experiment is Rs.16000. In the G.O. quoted above the Govern-

ment have laid down that the expenditure should not exceed

Rs.20000 on the whole.

It may be noted here that His Excellency the Governor

remarked as follows on the 5th May 1916:-

"Mr.Couchman will, I hope, be able before long to examine "and report" on this experiment.

SK 26.5.16
26.5.16
I have taken these
papers to Mr. Couchman for
P
29.5.16.

Box M29
29-5-16

Mr. Cunningham Esq.

10

30/5/16

I have perused the papers.

I shall, as soon as possible, report on the present position of the investigation.

The D. F. C. upper godarani tell me that the graphite mines at Jidi'gappa are unable to work in their present condition, & that he cannot say how much graphite is obtainable from them. He says that only about ten bags of graphite are in sight at the present time. I may, therefore, have to ask for the services of a professional miner to report on the amount of graphite which the mines are capable of producing.

mrd

31.5.16

For perusal of Mr. Cunningham
Note above.

31.5.16



P
1.6.15.

1



Submitted that this file may
be over pending receipt of
the report from the special
officer promised at ~~A above~~ overleaf.

8/14
5-6-16

Ca
17/14

A report is
due for the order. Please
see B at page 2.
To be over.

M
6.6.16

CM-2231. From the Special officer,
9-26-6-16.

Mr. Hookman submit a note
on the present position of the
Pencil-making experiment
carried on by the Dept. of Indus-
try. Mr. Treveler's report will be
received only after the ex-
periment is concluded. The file
may, ~~it~~ it is submitted, be
circulated to H. E. the Governor
and H. M. Financial for perusal

of Mr. Leachman's note. This
 8K 19.6.16 is ~~also~~ only an account of what
 has been done by the Dept. so far
 in this matter. ~~As regards~~ Before
 expressing any opinion on the ex-
 periments he desires to acquire
 further experience.

CR
 19.6.16

At E and G. Smith

Box M 12
 30.6.16

For perusal of Mr
 Leachman etc.

30.6.16

Read with interest. Market prices and
 competition are not discussed: should be
 considered later. P

3.7.16.

ML
 5.7.16.

Perhaps Sir Frederick Nicholson might
 like to see this unofficially. I remember
 seeing a note by him on the subject.

His
 5.7.16

A-109cf

Hansen Frederick Nielsen
Worked in the subject?

OK
7.7.16.

- Submitted yes - please see pages 10 & 13
(K) of Jo. N. 7625, dated the 25th January
1915. A copy of the note was
furnished to Mr. Couchman
(S) with D.O. N. 1923-1, dated the 2nd June 1916.

OK. OK
1.7.16. 7.7.16 a copy of the
note made sent to Sir
Frederick Nielsen. do.

Mr. Couchman
SK 87

OK
8.7.16.

A draft do. to Sir F. Nicholson
is submitted. With reference
to H.F. the Governor's note on
page 5 supra a draft do. to
Mr. Couchman is also submitted.

OK
8.7.16. OK
8.7.16

OK

Est. Department.

To. No 2231-123

Dear Sir Frederick ~~Adams~~

I am ~~to send you~~ ^{directly to you} ~~accepting~~

of ~~your~~ your personal copy of
a note by Mr. M. E. Conckman
who is now on special duty
in the Department of
Industries, on the present
position of the experimental
manufacture of pencils
undertaken by that Deptt.
yours truly

SK
8.7.16.

CR
8/7/16

SK
11/7

To ^{dec} 12/7

Sir J. Nicholson K.C.B.,
Hon. Secy of Fisheries.
(with copy note)

25th Sept

D.O. No 2231-2
11.7.16

Dear Comchman.

With reference to your letter of the 26th ^{ultra} ~~ultra~~ forwarding a note on the present position of the pencil experiment, I am to inform you that the Govt ^{await} ~~expect~~ a further report ^{on the subject} from you in due course. ^{which will} ~~discuss also~~

Please

~~consider~~ the questions of market prices & competition.

yours truly

SK
8/7/16.

CR
8/7/16

in ques
amb report.

42/117

2

M.E. Comchman B.I.C.S.
Offices on 8th duty

12.7.16

CN-3553. From the Special Officer.
Dept of Ind. N^o E.O. 8/18.9.16.

page 7 to 11 of c.f.

Mr. Couchman submits his further report on the pencil experiment. He states that the ~~expenditure~~ ^{expenditure} of Rs 20,000 authorized in G.O. N^o 346 25th, dated the 29th March 1916, has almost been incurred and hence applies for an additional allotment of Rs 17,000 to continue the experiment. The necessity for this expenditure has been clearly made out in Mr. Couchman's letter.

para. 10 + 11 p. 10

A. G. 16

Of the sum of Rs 17,000 applied for, only a small portion viz. Rs 3,000 is for non productive expenditure; the rest will be recovered by the sale proceeds of pencils. The proposed expenditure may, if it is submitted, be approved. It does not appear to be necessary to call for plans & estimates for scrutiny by the P.W.D. in respect of the additions & alterations proposed to the pencil factory building. A draft order is submitted for approval. It may be sent to the Financial Dept^t for acceptance. 2. In his note of the 3rd July last

p. 5 supra

H.E. The Governor desired that the questions of market prices & competition should be considered later & Mr. Bouchman was asked to discuss them in his next report. In his present letter Mr. Bouchman has touched on these questions to a slight extent. Apparently he will deal fully with them when the experiments ^(in regard to wood & graphite) which are still going on have been completed & manufacture on a commercial scale has gone on for some time.

pay & supra.



7.10.16

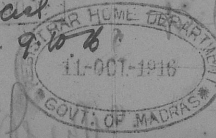
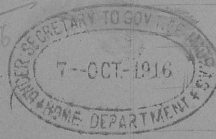


Vol. 1884-2

7.10.16
Noted in Cn
11.10.16

Amount Rs 5840.
Financial
Regd. 9.10.16

Final Rs: 5840/-
10/10/16



SK
5.10.16.

7.10.16

7.10.16

Lil Ho

7.10.16

7.10.16

Financial Deptt

We may agree.

10.10.16

9.10.16

Box No. 20
Circ 14/10
Recd 17/10

NOTES.

Home (Edw.) Dept.

Submitted that the file may now be circulated to H.E. the Governor.

Weight board

8x
11.10.16.
11/10
MML

Chas
11.10.16

HE

13.10.16

Recd from me
14.10.16

P.
15/10.

17.10.16

Sanctioning ~~the~~ Mr. Houchman's
proposal to incur a further
expenditure of Rs 17,000
on the pencil writing experiment

READ AGAIN G.O. No. 346, dated 11/29. 3. 1916. (C)

” ” ” ” ” ” 191 .

IT ALSO:—

C. No. 3553, From the D. J., No. E 11, dated 18.9. 1916

" " " " *Unit of the A. N. L. P. A.* *Dec 2, 1916.*
 " " " " *12783*

” ” ” ” ” ” 191 .

ORDER.

No. 1091, dated 17. 10. 1916.

Mrs.

The Govt. ^{sometimes} ~~appears~~ the
~~proposal~~ of Mr. Leachman
proposes
to incur a further ex-
penditure of Rs 17,000
on the pencil-making
experiments carried on
by the Dept^t of Industries.

8K
6.10.16

my
note

8.10.16

Rec'd
5th
10.10.11

MS. Buchanan Esq. J.C.S.

Special Officer, Dept.

Industria (2b)

The first ^{IV} ~~Sept~~ (200)

is given for clipping

is copied

is summarized

is signed

8
18/10/16
19/10/16

IN ARMY G.O. No.
18

RECEIVED

CURRENT No.

REFERENCE TO C. No.

ORDER OF GOVERNMENT

A. & OF GOVERNMENT

STATEMENT WITH ELUO.

OTHERS NOT TILED UP, BRING HEART FOR INSURANCE
IN ORIGINAL

A A A A A A A

N.E.-

- A = Copy in full.
- B = Not to be copied.
- P = Copy abstract only.
- Q = Copy heading only.