1/374

Revenue Department

Minutes of Consultations

28th April 1857

Back Nos 30-31

Order No 379 dated 25th April 1857

30 Annas

பாதுகாப்பு பிரிவு-1

செப்பனிடுபவர் பெயர் J.S.2. ஜனகிராம

செப்பனிடுவதற்காக எடுத்துக்கொள்ளப்பட்ட நாள் 7/06

செப்பனிட்டு முடித்த நாள் 8/06

சரிபார்க்கும் முதல் மு.நி.பா.எ. கையொப்பம்

சரிபார்க்கும் 2ம். நி.பா.எ. கையொப்பம்

ஆராய்ச்சி உதவியாளர் கையொப்பம்

2/574

Fort Saint George, Revenue Consultation of 28th April 1857.

No. 30. Read the following letter *from J. D. SIM, Esq., Acting Secretary to the Board of Revenue ; to H. FORBES, Esq., Acting Secretary to Government Revenue Department ; dated Fort St. George, 31st March 1857, No. 992.*

To Chief Engr. of Ceylon, Col. Thullier and Major Wingate			30th October	1855.
From Actg. Surveyor Genl. of Ceylon		22d Nov.	In Con. 26th Feb.	1856.
From Colonel Thuillier		8th December	" " 20th "	"
To Messrs. DeLaRue and Co		26th February 1856.	" " 20th "	"
From	do.	25th April	" In Con. 20th June	"
Do.	do.	23d June	" " 28th July	"
Do.	do.	24th July	" " 26th August	"
Do.	do.	8th August	" " 16th September	"
To Chief Engineer		3d September	"	
"	do.	16th September	"	
From	do.	23d September	"	
To Chief Engineer		8th December	" " 8th December	"
" Captain Priestley		8th December	"	
From Chief Engineer		16th December	" " 31st January	1857.
" Captain Priestley		29th January	" " 27th March	"

SIR,

With reference to Extract Minutes Consultation dated 16th October 1855, No. 1154, R. D., I am directed by the Board of Revenue to forward for the information of Government the correspondence noted in the margin, containing the result of their enquiries for ascertaining the material best adapted for recording maps and accounts of Survey.

2. On the receipt of the Extract referred to above, the Board addressed the Chief Engineer of Ceylon, Colonel Thullier Deputy Surveyor General of Bengal, and Major Wingate of the Bombay Survey, on the subject. The replies of the two former are herewith submitted ; the latter officer having left Bombay for England, the Board's letter was returned by the Post office authorities. The Board also communicated with Messrs. T. DeLaRue and Co., Paper Manufacturers of London, and requested information from them regarding the most durable material for records exposed in a tropical climate to extremes of heat and damp, and to the attacks of insects ; and the probable cost of a suitable article. Messrs. DeLaRue and Co. at once attended to the Board's request and forwarded specimens of paper expressly manufactured for the purpose, with a scale of prices at which they were willing to supply it. They also transmitted a report from Professor Hofman of the results of a chemical analysis which he had made of it.

3. The Board forwarded Messrs. DeLaRue and Co.'s communications and the specimens received to the Chief Engineer for his opinion as to the fitness of the material for maps, Field Books, Registers of Survey operations, and other such documents. In reply, Colonel Faber states that after the experiments he has made, he does not hesitate to declare that preference should be given to the new paper supplied by Messrs. DeLaRue and Co., as being the best suited for the preservation of valuable Revenue Survey Maps, &c. and for records generally. in a subsequent communication Colonel Faber has requested that a supply of the paper may be procured for trial in his department.

4. Captain Priestley of the Revenue Survey in South Arcot has also expressed a favorable opinion of the paper, but has of course had no opportunity of testing its alleged security against the attacks of insects.

5. From Messrs. DeLaRue's communications it would appear that the latter quality is gained by the admixture of a small quantity of corrosive sublimate with the pulp before sizing, and that the superiority of the paper in other respects is ensured by very great care in its preparation (from white linen rags) and in the sizing process.

6. The cost of the paper, as compared with that procured from the stationery Department, is high and would preclude its use except for survey maps and documents of importance.

7. The Board consider it very desirable that a fair trial should be made of the new material, as, if found to answer the expectations of the manufacturers, it would prove of great value in the contemplated survey of the Presidency. They resolve therefore to solicit permission to apply to Messrs. DeLaRue and Co. for the supply entered in the accompanying Indent, which includes enough for experimental purposes for the Chief Engineer's office, as well as for the Survey and Revenue Departments.

8. The cost so far as it can be calculated and exclusive of freight, &c. is also exhibited in the Indent.

	For Chief Engineer.	Revenue Department.	Survey Department.	Total cost.		
	Reams.	Reams.	Reams.	Rupees.	As.	P.
Antiquarian	1	0	1	1,070	0	0
Double Elephant	5	2	7	1,942	8	0
Royal	10	0	10	860	0	0
Medium	10	2	12	Rate is not given.		
Demi	10	0	10	Do.		
Imperial	0	2	2	Do.		
Foolscap	0	25	25	875	0	0
Total...	36	31	67			

No. 31. ORDER THEREON, *No.* 379; *dated 25th April* 1857.

The Right Honorable the Governor in Council authorizes the Board of Revenue to obtain from Messrs. DeLaRue and Co. of London, for experimental purposes, the different descriptions of paper entered in the Indent annexed to the foregoing letter, represented to be the most durable and well adapted for survey maps and accounts.

(Signed) H. FORBES,
Acting Secretary to Government.

B/379 No. 2891

From

G. S. Forbes Esq
Acting Secretary to the
Board of Revenue

To

The Chief Engineer.
Ceylon.
Colonel H. L. Thuillier
Bengal.

Sir

I am directed by the Board of Revenue to transmit the accompanying copy of a letter addressed by them to the Government of Fort St. George on the subject of survey Maps and Records, and to request that you will kindly favour them with your opinion regarding the Materials best suited to resist the effects of damp and other destructive influences. The Manufacturers in England would no doubt be able to suggest various improvements upon the materials ordinarily used for Maps, but with the prospect of surveys being undertaken in this Presidency on a very extended scale it has appeared to the Board desirable to benefit by the experience

experience which has already been acquired regarding the substances best suited to form durable records in a tropical climate and combining strength with lightness of texture so as to avoid inconvenient bulk. I am therefore desired to request you to be good enough to mention the result of your experience in this matter and to favor the Board with samples of the materials now in use.

Revenue Board Office,
Fort St. George,
30th October 1855.

I have &c.
(Signed) G. S. Forbes
Actg Secretary

No. 572.

From

G. S. Forbes Esq
Secretary to the
Board of Revenue.

To

Messrs De la Rue & Co
London

Gentlemen,

I am directed by the Board of Revenue at this Presidency to request that you will favor them with such information as your

experience affords, regarding the most enduring material for records, which are exposed in a tropical climate to extremes of heat and damp, and also to the attacks of insects.

Ex 379

2. It is in contemplation to carry on an extensive land survey of the entire area of the Madras Presidency and it is of importance that the Maps, field books, and Registers of these operations, which will constitute a large bulk of valuable records, should be prepared and some material which will combine the essentials already explained; probably the mixture of some poisonous preparation may be necessary to preserve the paper from insects.

3 The Board would be glad to learn whether you are willing to undertake the supply of a material suited to their purpose, and what would be its probable cost at the following average quantity and dimensions per hundred square miles.-

4 ___ Reams ___ Foolscap
4 ___ Dº ___ Kings-Demi
6 ___ Desire ___ Double Elephant
4 Duire Atlas Elephant
___ Dº ___ Antiquarian

together

together with a few spare quires (say 6 of each) of the two first named kinds. The area of the Madras Presidency is calculated to contain 136,872 Square miles.-

6. Should you consider that it will be in your power to supply an article suited to the purpose the Board will be glad to receive any information that you may be able to afford of the advantages which your paper will possess over that which is in ordinary use with Samples of the paper.-

Revenue Board Office,
Fort St. George,
26th February 1856.

I have &c.
(Signed) J. S. Forbes
Secretary.-

No. 2896.

From

J. S. Forbes Esq
Secretary to the Board of Revenue

To

Colonel C. E. Faber
Chief Engineer

Sir,

I am directed by the Board of Revenue to forward, for your perusal, the correspondence noted in the margin, with the specimens of Drawing paper submitted by Messrs Dela Rue & Co; and to request that you will favor them with your opinion as to their fitness for employment in

No. 672 To Messrs Dela Rue & Co 26 Feby 1856
No. 1807 From do 26 April in Cons 23 June 186
No. 2817 do do 23 June in Cons 28 July
No. 3305 do do 24 July in Cons 26 Augt

in the preparation of the Maps, Field books and Registers of survey operations you are aware that for this purpose, it is the wish of the Board to procure paper prepared in such a manner and of such material as will secure it from the attacks of insects, and be less liable to decay than that at present used.

6/379

Revenue Board Office,
Fort St. George,
3rd September 1856.

I have &c.
(Signed) J. S. Forbes
Secretary.-

No. 3041

From

J. S. Forbes Esq
Secretary to the
Board of Revenue

To

Colonel C. E. Faber
Chief Engineer

Sir,

With reference to my letter of 3rd September 1856. No. 2896. I am directed by the Board of Revenue to forward, for your information, a further communication received from Messrs Dela Rue & Co. dated 8th August 1856, submitting Dr. Hofmann's report of the results

results of a chemical analysis he has made of the paper prepared by them.

2. The Board beg the favor of an early reply to my former letter in order that they may lay the matter before Government as soon as practicable.-

Revenue Board Office,
Fort St. George,
16th September 1856.

I have &c.
/Signed/ J. S. Forbes
Secretary.

No. 4118

From.

J. D. Sim Esq
Acting Secretary to the
Board of Revenue

To,

Colonel C. E. Faber
Chief Engineer

Sir,

The Board of Revenue are about to make an application to Government for permission to purchase from Messrs De La Rue and Co a supply of the paper referred to in the correspondence noted in the Margin for Revenue Survey purposes - and they desire me to enquire whether you are inclined to try the same kind of

Col. Chief Engr. S. No. 416 dt. 15 Sept. 1856
From Dy. Sy. Genl. in Comm. 8th Dec. 56.

of paper in your Department and will permit them to request that a supply may at the same time be provided for your Office.-

6/379

2. The prices of Messrs De La Rue' new paper are given in the Margin and the Board will be much obliged if you will inform them of the prices of the same sized paper ordinarily used in your Department.-

	with the Watermark		without the Watermark	
	£	S	£	S
Antiquarian all insides	"	"	52	10
Double Elephant " "	12	15	13	17
Atlas " "	9	17	11	"
Royal " "	3	15	4	6
Foolscap 18 lb " "	1	10	1	15

The Board desire me to request the favor of an early reply.-

Revenue Board Office,
Fort St. George,
8th December 1856.

I have &c.
/Signed/ J. D. Sim
Acting Secretary.-

No. 4126.

From.

J. D. Sim Esq
Acting Secretary to the Board of Revenue

To

Captain J. B. Priestley
Revenue Survey

Sir,

I am directed by the Board of Revenue to forward for your inspection specimens of drawing paper

paper expressly prepared by Messrs De La Rue and Co. for use in this Country.-

2. The paper is said to be very carefully prepard of white linen rags which require no bleaching and particular attention has been paid to the sizing. A small quantity of corrosive sublimate has been added in order to prevent the attacks of insects. The prices of the different sizes is given in the Margin.

	with the Water.		without the Water.	
	£	s	£	s
Antiquarian all rag sides	"	"	5	3
Double Elephant " "	2	15	13	17
Atlas " "	9	17	11	"
Royal " "	3	15	4	6
Foolscap 18 lbs " "	1	10	1	15

3 The Chief Engineer has reported favorably on the paper and the Board request that you will favor them with your opinion as to its superiority to the paper in ordinary use in your Department.

4 They also wish to know what quantity you would require annually of each kind, if the new paper wholly supersedes that now in use in regard to all Maps &c. the preservation of which is a matter of importance.-

The

Date 23rd Sept. 56.
In Com. 8 Dec. 56.

3

5 The Board direct me to request a reply at your earliest convenience.-

3/379

Revenue Board Office,
Fort St. George,—
8th December 1856.—

I have &c.
/Signed/ I. D. Sim
Acting Secretary.-

(2 True Copies)

I. D. Sim
Acting Secretary

6

1857 Department

Enclosure in a letter from the Ag Secretary to the Board of Revenue to the Ag Secretary to Government dated 31st March 1857 No 992

Copies.

To Chief Engineer Leyster
Colonel J. L. Thuillier Bengal
dated 30th October 1855
To Messrs Delalue & Co London
dated 28th February 1856
To Col. A. C. Fuller Chief Engineer
dated 3rd September 1856
To do dated 16th do - - - - -
To do dated 8th December - -
To Capt Priestley Revenue Survey
dated 13th December &c.

Respecting Messrs DeLa
Rue's Paper

P 337/57.

9

No 5. Cuddalore 29th January 1834

Sir,

In reply to your letter of the 8th De-
cember I have the honor to State for the informa-
tion of the Board of Revenue that having trie-

ID
379

8

9
379

Memo.

Drawing Double Elephant 1 / Ream & 10 Quires
—— Do Imperial ½ Ream
Foolscap —— 100 / Reams.

No 5. Cuddalore 29th January 1834

Sir,

I D / 379

In reply to your letter of the 8th December I have the honor to State for the information of the Board of Revenue that having tried the Drawing Paper forwarded me in my Office, I am inclined to think very favorably of it. The fact of its not being liable to the attacks of insects (which however I have as yet of course been unable to verify) makes it doubly valuable in this country where maps and Papers of importance are so frequently destroyed by them.

I append an estimate of the quantity of Drawing Paper required during one year for the Survey Establishment as at present constituted and also of the quantity of Foolscap that will be wanted for accounts &c that are intended to be preserved as records.

I have the honor to be &c

(Signed) Frederick J. B. Brassley Capt.
Supt. Trig. Survey

To
J. D. Sim Esq.
Actin. Secretary to the
Board of Revenue.

(12)11
379

To

The Acting Secretary to the
Board of Revenue

Sir

In reply to your letter dated 8th Instant for which I beg to offer my best thanks. I have the honor to request you will be so good as to include the amount Stationary marginally noted in your application to Government for use in the Department of Public Works.

Prepared papers
Antegnarian 1 Ream
Double Elephant 5—
Royal - - - - - - - - 10
Medium - - - - - 10
Demi - - - - - - 10

2 The prices at which the same sized ordinary papers used in this office are procurable at the Stationary Department are as follows

Antegnarian per Ream Rupees 568-15-4
Double Elephant — — — 117—14-8
Royal — — — — — — — 28—3-8
Medium — — — — — — 21—14—
Demi:

Copy

From
The Secretary Board of
Revenue Survey
Trichinopoly

Dated 30th January 1854
Rec'd 3rd February "
No. 8

To Lieut. Col. Waddell Revenue Survey

Agreeably to the order of the Board of Revenue Survey in the Presidency of Fort St. George dated 14th Instant I have the honor to forward an Estimate of the Drawing Paper required for the Survey Office Establishment for one year.

Dupl. to Govt. 3rd March 1854

Demi - - - - - - - - - - - 14-12-8

Foolscap - - - - - - - - - 9-7-8

Kingsarm 7-12-0

(Signed) C. Faber Colls
Chief Engineer

Central Office of
P. W. Fort St George
16th December
1856

(13) 12
379

Copies
No 3.
From the Chief
Engineer & Secretary
To Public
Dated Fort St George
the 31st December 1856

Royal College of Chemistry
August 5. 1857

13
(14)
554

Gentlemen

I have now the honour of reporting to you the results attained in the analysis of the paper for Public records, which you have submitted to me for examination.

By a series of careful experiments, the details of which are given in the Appendix, I find that the paper which you have forwarded to me contains on an average 1/3 of a grain of corrosive sublimate per sheet of paper.

This quantity is far below the amount which could inspire the slightest uneasiness when considered from a sanatory point of view.

As much as 2 grains of corrosive sublimate is not unfrequently given in Medicine and it is generally admitted, that the toxicological effects of this compound are produced with quantities not less than 3-4 grains.

9

Having established to my satisfaction the amount of corrosive sublimate which is present in the paper. I was anxious to ascertain how far the Mercury-salt was fixed by the surface action of the paper and by the size which I understand is applied in this case after the treatment with the mercurial preparation.

In experiments made for this purpose it was found that a sheet of the record paper when immersed into half a gallon of water for 3/4 of an hour did not give up the slightest trace of mercury to the water.

Only after one hours immersion and very frequent agitation a mere minute quantity amounting to about 1/3 of the total quantity of mercury present in the sheet was found to be dissolved.

These preceding experiments prove that the record paper which you propose for the use of the East India Company may be employed without the slightest fear of danger.

Nor can it be urged that the presence of a portable vessel insceptible of receiving colored

15
379

under the influence of sulphuretted hydrogen which is invariably present in the atmosphere of densely populated cities, would gradually lead to an objectionable discoloration of the paper. I have convinced myself by direct experiments (see appendix) that the paper even when exposed to a quantity of sulphuretted hydrogen capable of affecting the whole of the mercury-salt which is present in it undergoes only a most minute and perfectly unobjectionable alteration of colour.

Among all antiseptics I know corrosive sublimate appears to be the most appropriate means of protecting paper from the attacks of insects. There are no experiments on record affording information about the amount which is necessary for this purpose. From analogy, however, I would infer that the quantity found in the record paper whilst perfectly harmless to the human

16
379

economy and unable to give rise to any objectionable discoloration under the influence of atmospheric air, is quite sufficient for the purpose of protecting the paper against the attacks of insects which prove so destructive in hot climates.

I have the honour to be
Gentlemen
Your very obedient servant
A. W. Hofmann. F.R.S.
Professor of Chemistry in the
Metropolitan School of Science

To
Messrs. Thomas De La Rue and Co

B
374

Appendix

Containing the experimental details of the Chemical Examination of Messrs. De la Rue and Co.'s Paper for Public Records.

After several preliminary experiments the following method was adopted for determining the amount of corrosive sublimate (chloride of mercury) present in the paper.

Solutions of corrosive sublimate were prepared containing a known quantity of the mercury salt.

Into these solutions measured off in cylinders graduated in cubic centimetres slips of unsized paper were introduced and allowed to remain until they were perfectly moistened. They were then removed, allowed to drain, care being taken to collect the water running off in the respective cylinders and rubbed gently dried. The diminution of volume which the solution suffered by this immersion was carefully de-

18/374

served and thus the amount of corrosive sublimate was obtained that had been absorbed by each slip of paper.

Moreover each of the slips being exactly the $\frac{1}{128}$ part of a sheet, equal to the sheet of the record paper, it became only necessary to multiply by 128 the quantities of the mercury salt found in the several slips in order to obtain the amount corresponding to sheets.

The solutions of corrosive sublimate were prepared of the following composition:

a	= 1.00000	=	percent of corrosive sublimate
b	= 0.50000	= $\frac{1}{2}$	per cent " "
c	= 0.25000	= $\frac{1}{4}$	" " "
d	= 0.12500	= $\frac{1}{8}$	" " "
e	= 0.06250	= $\frac{1}{16}$	" " "
f	= 0.03125	= $\frac{1}{32}$	" " "
g	= 0.01562	= $\frac{1}{64}$	" " "
h	= 0.00781	= $\frac{1}{128}$	" " "

It was found that each slip had absorbed exactly 2 cubic centimeters of the mercury-solution. In 8 successive experiments, made with the several solutions, slips were obtai-

ned containing:

19
20
379

a - 0.020000 grammes; or 0.512 grammes per pt.
b - 0.010000 grammes; or 0.256 grammes per pt.
c - 0.005000 " "; or 0.128 " "
d - 0.002500 " "; or 0.064 " "
e - 0.001250 " "; or 0.032 " "
f - 0.000625 " "; or 0.016 " "
g - 0.000312 " "; or 0.008 " "
h - 0.000156 " "; or 0.004 " "

The slips thus prepared were then drawn through a saturated solution of sulphuretted hydrogen, a slip of the record paper bearing submitted to the same treatment.

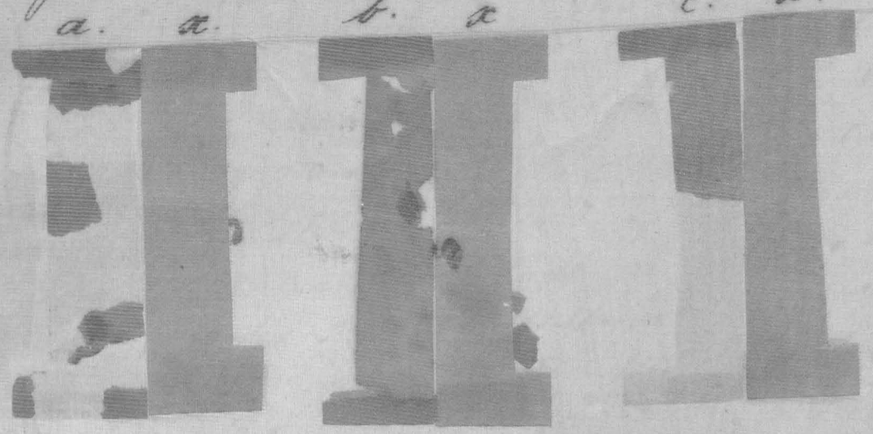
By comparing the tint assumed by the latter with the tints assumed by the standard strips, the amount of corrosive sublimate present in the record paper was found within limits sufficiently narrow for the object in contemplation.

The results obtained are illustrated in the following conspectus in which paper slips treated with the several standard solutions are placed

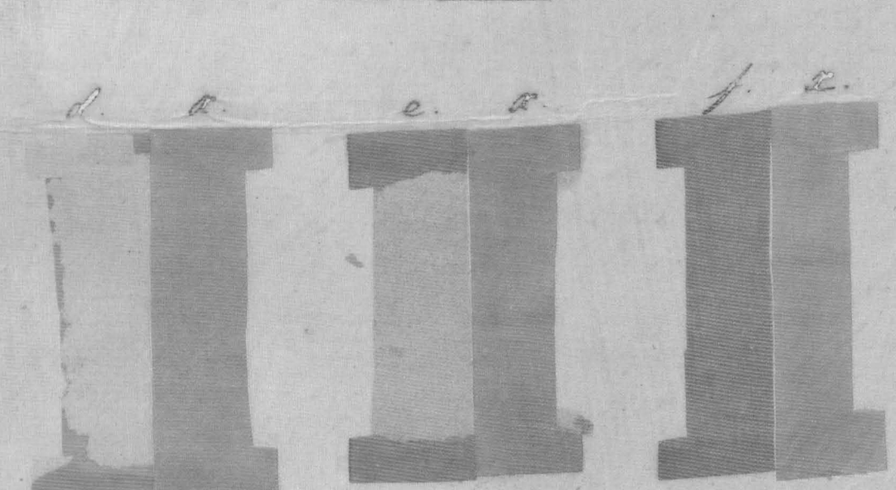
20
37

in parallel position, with slips of the
record paper. The several standard
slips are designated by the letters
corresponding to the standard solutions
the record papers being represented
by the letter x.

a. x. b. x c. x.

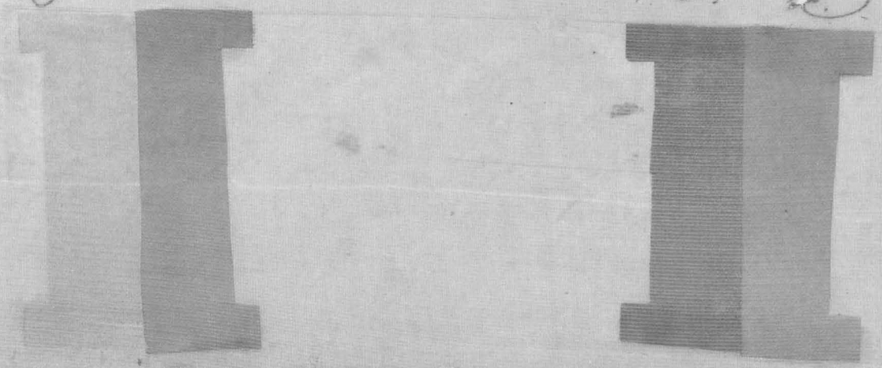


d. x. e. x. f. x.



27/374

g. x. h. x. 20



By a careful comparison of the tint assumed by the record papers with those of the standard slips it is obvious that slip 2 is a little darker, whilst slip f is somewhat lighter than the slip of record paper

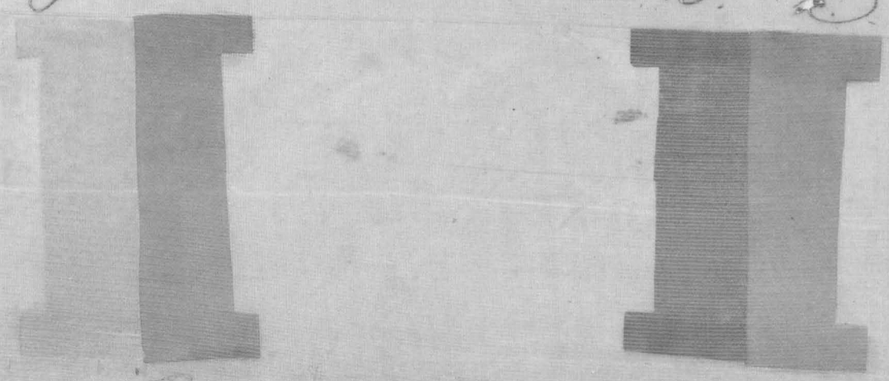
A sheet of paper corresponding to slips 2 and f contains respectively

0.022 grammes and
0.016 " "

it may be therefore safely inferred that a sheet of the record paper under examination, standing as it does between the two, contains about 0.024 grammes = 0.360 grains or in round numbers $\frac{1}{3}$ of a grain of corrosive sublimate.

27/374

g. r. h. r.



By a careful comparison of the tint assumed by the record paper with those of the standard slips it is obvious that slip 2 is a little darker, whilst slip 1 is somewhat lighter than the slip of record paper. A sheet of paper corresponding to slips 2 and 1 contains respectively

0.032 grammes and
0.016 " "

it may be therefore safely inferred that a sheet of the record paper under examination, standing as it does between the two, contains about 0.024 grammes = 0.360 grains, or in round numbers $\frac{1}{3}$ of a grain of corrosive sublimate.

1109/32

Pn Ex 3602 of 1826
Bn Cam Ibdfg sc

R337/57

379/202

London 110 Bankside Row
August 8th 1836.

J. C. Forbes Esqre
Secretary to the Board of Revenue
Madras

23
379

Sir,

Referring to our letters of June 23d
& July 24th and also to the samples of Record paper
to which they relate and which were forwarded per
p. "Bolus" we have the honour to state that these samples
have been prepared in strict conformity with the precaution
alluded to in our letter of the 25th April last; that is to
say from white linen rags requiring no subsequent bleaching
when reduced to pulp, and with all possible care in the
process of sizing, to avoid any excess of alumn. The samples
have moreover been impregnated during the process of
manufacture with such a quantity of corrosive sublimate
(chloride of Mercury) as we believe will be efficacious in
protecting the Records from the destructive attack
of insects. The quantity of Mercury [illegible] is however so
minute that even should it become entirely converted
into Sulphuret of Mercury by Atmospheric influence it cannot
discolour the paper in future. We would also remark
that the fibre had been impregnated with the corrosive
sublimate before sizing, so that the substance is in a great
measure protected from dissolution and from accidental
removal in consequence of the layer of size which completely
envelopes the fibres of the paper. Not wishing to rely solely on
our own judgment in a matter of such importance as
have as we before stated explained our views to Dr Hofmann

For Order

Revenue Department No. 337.

From the Ad Secry to the Bd of Revenue

of 7th April 1807.

26
379

The Indent rehelpin
the Bd of Revenue may
think fit to sanction.

AG

WHGoldsby

Revenue Board Office,
Fort St. George.
31st March 1857.

No. 992

From

I. D. Sim Esq:
Acting Secretary to the Board of Revenue.

To

H. Forbes Esq:
Acting Secretary to Government
Revenue Department.

2/6
2/379

Sir,

With reference to Extract Minutes
Consultation dated 16th October 1855 No 1154, R.D.
I am directed by the Board of Revenue to
forward for the
information of
Government the
correspondence noted
in the margin, containing the results
of their enquiries
for ascertaining
the material best adapted for recording Maps
and accounts of Survey.

To Chief Engr of Ceylon Col. Boutflower
and Major Wingate 30th October 1855.
From Dy Survey Genl of Ceylon 23d Novr 1855 In Cons 28th Feby 1856.
From Col Boutflower 8th December — " In Cons 28th " "
To Majr Wingate 26th July 1856
From — do — 25th April " In Cons 20th June "
From — do — 28th June " In Cons 30th July "
From — do — 21st July " In Cons 28th Augt "
From — do — 8th Augt " In Cons 16th Sept "
To Chief Engr — 3d Sept "
To — do — 16th Sept "
From — do — 23d Sept " In Cons 8th Dec "
To Chief Engr — 8th Dec "
To Capt Priestley 8th Dec "
From Chief Engr 16th Dec " In Cons 5th June 1857
From Capt Priestley 29th Jan 1857 In Cons 27th March "

2. On the receipt of the Extract referred to above, the Board addressed the Chief Engineer

of

of England, Colonel Thuillier Dy. Surveyor General of Bengal, and Major Wingate of the Bombay Survey, on the subject. The replies of the two former are herewith submitted. The latter Officer having left Bombay for England, the Board's letter was returned by the Post Office authorities. The Board also communicated with Messrs. De La Rue and Co. Paper Manufacturers of London, and requested information from them regarding the most durable material for records exposed in a tropical climate to extremes of heat and damp, and to the attacks of insects; and the probable cost of a suitable article. Messrs De La Rue & Co at once attended to the Board's request and forwarded specimens of paper expressly manufactured for the purpose, with a scale of prices at which they were willing to supply it. They also transmitted a report from Professor Hofman of the results of a chemical Analysis which he has made of it.

3. The Board forwarded Messrs De La Rue and Co's communications and the specimens received to the Chief Engineer for his opinion

27
28
379

as to the fitness of the material for Maps, Field Books, Registers of Survey operations, and other such documents. In reply Colonel Taber states that after the experiments he has made, he does not hesitate to declare that preference should be given to the new paper supplied by Messrs De La Rue and Co as being the best suited for the preservation of valuable Revenue Survey Maps &c., and for Records generally. In a subsequent communication Colonel Taber has requested that a supply of the paper may be procured for trial in his Department.

4. Captain Priestley of the Revenue Survey in South Arcot has also expressed a favorable opinion of the Paper, but has of course had no opportunity of testing its alleged security against the attacks of Insects.

5. From Messrs De La Rue's communications it would appear that the latter quality is gained by the admixture of a small quantity of corrosive sublimate with the pulp before sizing, and that the superiority of the Paper in other respects is ensured by very great care in its preparation (from white Linen rags)

and

and in the sizing process.

6 The cost of the paper, as compared with that procured from the Stationery Department, is high and would preclude its use except for Survey Maps and Documents of importance.

7 The Board consider it very desirable that a fair trial should be made of the new material as, if found to answer the expectations of the Manufacturers, it would prove of great value in the contemplated Survey of the Presidency. They resolve therefore to solicit permission to apply to Mess.rs DeLaRue and Co for the supply noted in the accompanying Indent, which includes enough for experimental purposes for the Chief Engineers Office, as well as for the Survey and Revenue Departments.

8. The cost so far as it can be calculated and exclusive of freight &c.a is also exhibited in the

27

Indent.-

	For Chief Engineer.	Revenue Department.	Survey Department.	Total Cost.		
	Reams	Reams	Reams	Rupees	as	P
Antiquarian	1	.	1	1070	"	"
Double Elephant	5	2	7	1942	8	"
Royal	10	.	10	860	"	"
Medium	10	2	12	Not to hand		
Demie	10	.	10	do.		
Imperial	.	2	2	do.		
Foolscap	.	25	25	875	"	"
Total.	36	31	67			

28
374

I have the honor to be
Sir,
your most Obed.t Servant
[signature]
Actng Secretary.

Revr Board Office
Fort St George
31st March 1854

To
H. Forbes Esq.r
Acting Secretary to Government
Revenue Department.

Cons: 16th Oct. 55. Nos. 32 & 33.

Bengal Letter to E
D/ 30th October 1855 No 39
Pd.

27 Dec 57

with Mss
Copy & the Ent. Vol
Bengal & Bombay
Dest. Aug. 58.
No. 1162.

No 30 & 31
Pro. of the Bd. of Rev.
21 March 1862 No 1127.

Rec. 18 Apl. 1857
to Cons 28th April
No. 337.

From
The Acting Secy to
the Bd of Revenue

To
The Acting Secy to
Government
Revenue Depart.

Dated 31st March
Rec'd 2nd April 1857
Forwarding 19 Lrs with 19 Encls
11 Encls.

No. 992 of 57

Submitting copies & Translations containing the result of the Bd's enquiries for ascertaining the material best adapted for recording papers &c & soliciting permission to supply Messrs De La Rue & Co. for the supply of the Paper entered in the Indent appended thereto to be used experimentally

No. 379 With an order 25th April

No. 379

The Right Honorable the Governor in Council authorizes the Board of Revenue to obtain from Messrs De La Rue & Co. of London, for experimental purposes, the different descriptions of paper entered in the Indent annexed to the foregoing letter, represented to be the most durable and well adapted for Survey maps and accounts.

Fort St. George
25th April 1857

Rep. to the Bd of Rev. with 10 Encls
Disp. 27th