

Home (1916) Department.
Education

Ordinary SERIES.

G.O., No. 1348

DATED

12 12 16

INDEXED

[Despatch Abstract.]

Dyes.

Recording papers relating to the feasibility of
importing dyes required in this country from the United Kingdom.

CN 3563 808
6-10-16

449-1.



GOVERNMENT HOUSE,
OOTACAMUND.

4th October 1916.

My dear Rajagopalachari,

I am to send you the enclosed letter dated the 1st September 1916 from Mr James Falconer of which His Excellency thinks a copy might be sent to the Director of Industries. His Excellency considers that Dr Marsden will be interested to see it and may be able to say whether any dyes which are available would be marketable here.

Yours sincerely,

H. M. S.

The Hon'ble Diwan Bahadur P. Rajagopalachariar Avl., C.I.E.,
Secretary to Government, Home Dept.,
Ootacamund.

OK

James Falconer

2
3

BRITISH DYES LIMITED.

TELEPHONE,
HOLBORN, 75.

TELEGRAMS,
BRIDALTA, ESTRAND, LONDON.

CODES,
LIEBERS-A.B.C. 5TH EDITION.

WORKS,
TURNBRIDGE WORKS, HUDDERSFIELD.
TELEPHONE, HUDDERSFIELD, 1621.

EMPIRE HOUSE,

KINGSWAY,

LONDON, W.C.

1st September, 1916.

HA

The Right Hon. Lord Pentland,
Government House,
Ootacamund,
MADRAS, I N D I A.

My dear Pentland,

I am very grateful to you for your letter of 27th July explaining the position in Madras with regard to Dyes and particulars of the sale of the dye portion of the cargo of the "Barenfels". We are very much alive to the great scarcity of dyestuffs in different parts of the Empire and particularly in India and we are pressing forward the construction of our Works and the pursuit of the technical knowledge as fast as the conditions at home will permit. The task, however, is one of great magnitude and difficulty and apart altogether from the fact that very many of the processes are not practically known in this country, there are, of course, very special difficulties in obtaining the labour and materials and technical skill for designing and constructing the works and plant and also some of the important materials required for the different operations.

I enclose a copy of a report which we have recently issued to our shareholders which will show you what we have been doing up to now. A great deal of important work has been done, but still we have only been laying the foundation and there is much more which must be done before we can provide anything like a national supply. I have been practically giving my whole time to this work and neglecting the House of Commons unless when there is very special occasion for my attendance and my visits to Scotland have been very rare.

Yours very truly,

James F. Wilson.

BRITISH DYES LIMITED.

Board of Directors.

JAMES FALCONER, M.P., <i>Chairman</i> .	GEORGE GARNETT.
SIR FRANK FORBES ADAM, C.I.E.	CLAUDE HOLLINS.
SIR GILBERT CLAUGHTON, BART.	KENNETH LEE.
H. W. CHRISTIE.	G. P. NORTON.
M. O. FORSTER, F.R.S., D.Sc.	JOSEPH TURNER.

Technical Committee.

M. O. FORSTER, F.R.S., D.Sc., <i>Chairman</i> .	PROFESSOR W. H. PERKIN, F.R.S.
J. C. CAIN, D.Sc.	JOSEPH TURNER.
HARRY DEAN.	

Manager of the Company's Works.

JOSEPH TURNER.

Solicitors.

MESSRS. SLAUGHTER AND MAY.

Auditors.

MESSRS. JONES, CREWDSON AND YOUATT.

Secretary.

D. R. MACKAY.

REPORT TO THE SHAREHOLDERS.

The Board will not be in a position to adjust finally the accounts of the Company for the year ended 30th April, 1916, until they have arrived at a settlement with the Revenue Authorities in regard to the duties payable under the Finance Act, 1916, and they are in consequence compelled to postpone for some time the issue of the Balance Sheet and the holding of the Ordinary General Meeting for its consideration.

They have accordingly resolved to make the following Report to the Shareholders on the progress and work of the Company, and as soon as the accounts are adjusted the Ordinary General Meeting will be called and the Balance Sheet will be submitted.

CAPITAL.

The issued Share and Loan Capital of the Company consisted as at 1st August, 1916, of:—

Share Capital subscribed (864,179 Shares of £1 each—10s. per Share called up)...	...	...	...	...	...	£864,179
Loan from Government	...	...	...	...	...	1,064,179
						<u>£1,928,358</u>

Since the date of the Report submitted to the Statutory Meeting of the Company (5th July, 1915) the subscribed Share Capital has increased by £208,080 and the Loan to which the Company is entitled from the Government has increased by £209,629—making together an increase of £417,709.

ORGANISATION.

The Board have established:—

- (1) **A Committee of Directors.** This Committee gives continuous attention to the affairs of the Company.
- (2) **A Technical Committee.** This Committee combines the heads of the technical and scientific departments with Dr. Forster as Chairman.
- (3) **A Research Department,** of which Professor W. H. Perkin is the Head. On account of the delay and expense which would have been involved in erecting during the war a Central Research Laboratory, it has been arranged that in the meantime the research work, so far as not conducted in the works laboratories, should be carried on in the laboratories of different universities under the supervision of the Professors of organic chemistry. Research colonies have been established in this way employing a number of assistants under the respective Professors, and much important work is being carried out.
- (4) **An Advisory Council,** which consists of twelve eminent Professors of Chemistry connected with different universities in addition to the members of the Technical Committee. It has been formed for the purpose of increasing the number of chemists and promoting research in organic chemistry and particularly in that branch of it which relates to coal tar colours. The Company have offered to place at the disposal of the Professors an annual grant for the remuneration of honours graduates in chemistry who have received special instruction in coal tar products and who are prepared to continue their training as research assistants. After such training the Company will be prepared to offer employment to suitable men recommended by the Professors. The Directors have also agreed to make a grant of £5,000 towards a scheme for the development of advanced teaching and research in tinctorial chemistry in the Technical College at Huddersfield.

IMMEDIATE SUPPLY OF DYES.

Notwithstanding the restriction caused by the shortage of certain materials owing to the war, the supply of dyes from the Company's works has been greatly increased.

New plant has been erected and is in course of erection for further increasing the supply of those dyes which are most in demand and which can be made in large quantities from the materials available. In the near future the supply will be further substantially augmented.

The Company has also sent to the Swiss manufacturers considerable quantities of raw materials and intermediate products, without which they would not have been able to continue their supplies to the British markets.

A report from Mr. Turner, the manager of the Company's works, in regard to the supply of dyes is appended.

A Committee appointed by the Board of Trade has made an exhaustive enquiry into the colour requirements of this country. Mr. Turner, who represents this Company on the Committee, has, with the authority of the Board of Directors, submitted proposals for the prevention of overlapping in manufacture and for utilising the resources of all dye-makers in the country to the fullest advantage.

SUPPLY OF RAW MATERIALS AND INTERMEDIATE PRODUCTS.

After conferring with a number of the leading users of dyes, the Directors decided, so far as the new works are concerned, to provide in the first place mainly for manufacturing on a large scale raw materials and intermediate products. They desire to call particular attention to two important considerations:—

- (1) In order to secure a permanent national supply of dyes it is imperative that the manufacture of the intermediates from which dyes are made should be successfully established in this country.
- (2) The production of these intermediates requires the operation of a series of processes not hitherto worked on a commercial scale in this country, and it also requires complicated and expensive plant.

A large amount of research and experimental work has been done, and a considerable quantity of plant has already been erected for the production of intermediates. Other important plants are in course of construction, including plants for paranitraniline and beta-naphthol.

As regards raw materials, the benzol and phenol plant has been largely increased. An acid plant sufficient for the requirements of the Company is approaching completion and a large part of it is in operation.

NEW WORKS.

When the Turnbridge Works of Messrs. Read Holliday & Sons Limited were acquired by the Company, considerable extensions were in course of construction by that Company, and these have been completed.

After careful enquiry with regard to sites elsewhere an additional freehold site extending to 343 acres was acquired at Huddersfield.

A railway connecting this site with the Turnbridge Works and with the London and North Western Railway has been constructed, which with its branches and sidings extends to about 11 miles of single line.

Buildings for the accommodation of a large amount of plant have been completed at Turnbridge Works and on the new site.

A portion of the new plant has been installed in these buildings, and important materials and products for making dyes are being obtained from it, including a supply of the acids required. A large amount of additional plant is in course of manufacture and erection.

A new works laboratory has been completed at the Turnbridge Works, and a second, including provision for large scale experiments, is approaching completion on the new site. These laboratories will give suitable accommodation to the staff of chemists which has been largely increased.

Works and plant for the supply of water, ice, electricity and steam are in course of construction, and are partly in operation.

The construction of the additional works and plant has been carried on under conditions of special difficulty as regards time and cost on account of the scarcity of the materials and labour required for such work, and of the difficulty in obtaining deliveries of the plant from the makers, and also because a large part of the work was carried out during a winter of exceptional inclemency. Nevertheless, substantial progress has been made, the total contents of the new buildings erected at the old and new works being not less than 25,000,000 cubic feet and the floor area covered 1,200,000 superficial feet (about 27 acres).

The Directors propose to arrange for the shareholders to have an opportunity of examining the works, and a separate notice of the arrangements will be forwarded before the Annual Meeting.

INTERNATIONAL ARRANGEMENTS.

As the result of conferences with a Commission specially appointed by the French Government, the Board have adjusted a provisional agreement with Le Syndicat National des Matières Colorantes (a national company which has been formed in France with the support of the French Government). This agreement provides for a complete exchange of knowledge and processes and for the formation of an Interallied Company to establish co-operation between the two companies in regard to the production of intermediates and dyes. This Company will enable the resources and skill of Great Britain and France to be combined in providing a supply of these products on the most favourable terms.

It is intended that the Interallied Company should be a means of bringing about co-operation with other dye manufacturers in Great Britain, France, and other allied and friendly countries.

On the invitation of the Directors, Dr. M. O. Forster, F.R.S., the Chairman of the Technical Committee, and Mr. Joseph Turner, the Manager of the Company's Works, have joined the Board.

By order of the Board,

D. R. MACKAY,
Secretary.

HUDDERSFIELD,

17th August, 1916.

MANAGER'S REPORT TO THE BOARD OF DIRECTORS.

GENTLEMEN,

In accordance with your request I beg to make the following report upon the work of the past year:—

GENERAL PROGRESS.

During the year the difficulties that we have had to contend with have been very numerous, including shortage of labour and difficulty in getting in machinery and materials, and, in addition, there has been a great shortage of several of the raw materials. Notwithstanding these drawbacks we have been able to make considerable progress.

ACIDS.

During the year we utilised our steamer on several occasions to bring fuming acid from America, not only for our own consumption, but also for consumption by the other colour makers in the country. This has enabled them and us to get a larger production than we otherwise could have done, and it has also materially helped the supply by enabling us to send materials to Switzerland, in consequence of which the Swiss Companies have been able to continue their supplies of dyestuffs to this country.

The erection of our oleum plant is nearly completed, and a large part of it is in operation. This should alleviate the position for the future and enable us to give a larger output than we are doing at present, and also a greater variety of colours.

The plant is a large one, and should be capable of producing all the oleum required by us when it is in full working order.

We have also erected an additional nitric acid plant, and a large part of this is in operation.

BENZOL, ETC.

We have largely increased our plants for the production of benzol, toluol and phenol, and also for the manufacture of dimethylaniline, and these should be sufficient to supply all our requirements after the war.

SULPHUR COLOURS.

At the beginning of the war our arrangements for producing sulphur colours, both in respect of equipment and raw materials, were totally inadequate to the new needs of the country; it is satisfactory to note therefore that we have since increased our output to more than three times the original amount. These colours have rendered real assistance to the British dyeing industry. The enlarged production has enabled users to obtain by new methods shades, such as indigo, which they could not otherwise have obtained, and in some instances mills have been kept running by the substitution of these colours, coupled with the basic colours. Without them it would have been impossible for the country to have produced anything like the variety during the war, and it is reasonable to believe that our increased output has had a beneficial effect in checking the tendency of prices for such colours to rise to an unreasonable level. High prices have been made for some of them in small quantities, but this only tends to show the prices which these colours might have reached but for our increased output.

DIRECT COLOURS.

Although we have been able to offer a fair supply of direct blacks, the position of a variety of direct cotton colours has been less satisfactory, owing to the lack of some of the necessary materials, including fuming sulphuric acid. We have been more fortunate in respect of wool colours, however, the necessary brown for dyeing khaki cloth having been provided without difficulty. At one time khaki yellow became

rather scarce, but for the last six or eight months the supply has been sufficient to meet the demand, and the same statement applies to khaki green. With respect to the ordinary wool colours, our supply of the Fancies has been smaller than our normal deliveries, owing to the limited amount of raw materials available, but our plant for producing these and the necessary direct cotton colours has been increased with a view to taking immediate advantage of the prospective increase in the supply of intermediates.

VARIOUS DYES.

We are now manufacturing a colour similar to tartrazine, thus checking a further rise in the price of this dyestuff and enabling us to meet the demand. Galloxyanine has also been delivered in satisfactory quantity, and its process of manufacture will be extended to other colours resembling it. Increased facilities for the production of basic colours and patent blue are also planned, and before long we shall manufacture several of the vat colours in small quantities.

INTERMEDIATES.

I would direct special attention to the vital importance of the manufacture of the intermediate products. The products from which many dyes are made have not been manufactured in this country on a commercial scale, and a practical knowledge of the processes and plant required for obtaining the best results in respect of them can only be arrived at by investigation and experiment. A considerable amount of work of this nature has been done, and plant for the manufacture of paranitraniline and betanaphthol and other intermediate products is in course of construction. There remains, however, a large amount of work of this nature which is essential to the building up of a national industry.

I am,

Yours faithfully,

J. TURNER.

TURNBRIDGE WORKS,
HUDDERSFIELD,
17th August, 1916.

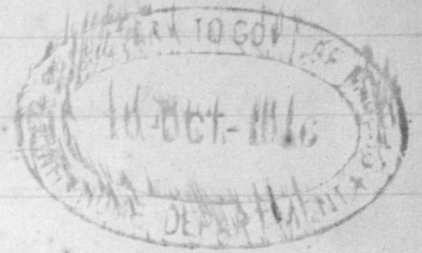
Home (Govt) Dept.

A draft do. to Mr. Bonehman
is submitted for approval.

8x
7.10.16
My
8/10/16

Clk
9.10.16

9/10/16



BRITISH DYES
LIMITED.

REPORT TO THE
SHAREHOLDERS.

Home (Ed.) Dept.
[C No 3563]

D.O. No 3563-1
10.10.16

Dear Couchman,

I am ^{desired} to send you a copy of a letter dated the 1st September 1916, from Mr James Saloner, Chairman of the Board of Directors of the British Dyestuffs, and to suggest that a copy of it may be ^{forwarded} sent to D. Marsden, ^{as far as} may be able to say whether any dyes which are available in the United Kingdom would be marketable here.

yours sincerely

8x
7.10.16.

✓
9.10.16

To
Recd to Insp
with Encl
MUS
14.10.16

N.E. Couchman Esq.

Office on special duty
Dept of Industries (with copy of Mr Saloner's letter + enclosed in original to be returned)

D.O.

TELEGRAPHIC ADDRESS:
"CHROMIUM," MADRAS.
POST BOX NO. 454.

G. No. 28816.

CN^o 3744 289
MADRAS,

21.10.16

20th October 1916
21.

Dear Mr. Rajagopalachari

In reply to your D.O. No. 3563-1 of 10th inst.
I enclose a copy of a note by Dr. Marsden on the subject.

It would be of great service to us if we could
be given a list of the dyes now being made in England,
with prices, and the addresses of the Agents from whom
they could be procured.

Yours sincerely,

M. R. Ananthan.

To

The Hon'ble Diwan Bahadur

P. Rajagopala Achariyar Avl., C.I.E.,

Secretary to Government,

Educational Department,

Madras.

10.10.16

Copy of the note on D.O. No. 3563-1 dated 10-10-16 from Home Department, (Educational) by Dr. Marsden to M.E. Couchman Esq., I.C.S.

10
I am positive that there are many dyes now being made in quantity in England which would meet with a ready sale in India. I cannot specify the individuals as the works themselves have not published any complete list of the dyes being manufactured and advertisements in the Trade Journals have dealt more with dyes suitable for Army requirements than with those for general trade. In a Report to the Secretary to Government Educational Department on October 13, 1915 I took this into account and indicated by reference to what were standard, well-known dyes the nature and shades of dyes which were in universal demand here in Madras.

If such could be brought here they would find a ready sale. The question of marketing is the problem. The mills with Agents at Home to look after their needs are not doing badly, but others which only bought in the Bombay Market, and the country dyers, have suffered severely,

It appears to me from the Trade advertisements that the License scheme of the Board of Trade has brought into being a host of Firms trading in Dyestuffs and made it most difficult for Indian dealers to get supplies, and one Bombay dealer has done very well but I know of no case in Madras where any dealer has obtained a license. I have knowledge, however, of a case where a gentleman well-known to me who knows the Dyestuff business and the Dyemaking Firms in Switzerland and England has tried to open business relations with these but has been hampered at every turn by the regulations and business made impossible.

I have seen nothing in the Press to indicate that Swiss Dyemaking Firms were on the Black List, but I have seen that they were of great assistance to us and I cannot understand the attitude which I gather has been taken towards them in India.

A The English Dye-works could meet all our demands for common colours and the Swiss Firms could supply the Dyes which are necessary for high class goods.

20.4.16

Home (Exn) Dept

Please see Dr. Haraden's letter on page 7 ^{supra} + Mr. Bonchman's letter on page 6. The file may perhaps be sent to the P.S. by way reference to the suggestion contained in the second sentence of the D.O.

Stt
23.10.16.

26/10/16

S:

'British Dyes' may officially be asked to send a list of the dyes immediately available for exportation; a copy of the Dyeing Export & note might be sent to the Chairman.

Elch
27.10.16

P.S. G. Ho

28/10/16

Edno 3563-1
30.10.16

First, let the Secretariat ascertain the facts as to Swiss Dyes in India?



P
31.10.16.



Submitted that the Federal Council of Switzerland has prohibited the export of all colours and colouring materials from that country. It is not therefore likely that any Swiss dyes will be available in India. Mr. Innes may, however, be asked to ascertain whether such dyes are available and if so, in what quantities and of what kind. A draft D.O. is submitted for approval.

[Signature]

S.

[Signature]
8.11.16

[Signature]

[Signature]

3563-2 d 10-11-16

H. A. Innes
(Edinburgh)

Dear Mr. Innes,

Please refer to the correspondence ending with Mr. Couchman's D.O. No. 28, dated the 20th ultimo, on the subject of dyes. Will you kindly ascertain and let me know whether dyes manufactured by Swiss firms are available in India, and, if so, in what quantities and of what kind?

2. From ^athe communication received from the Government of India it appears ~~however~~ that ^{the} export of colours and colouring materials from Switzerland has been prohibited by the Government of that country.

To

C.A. Innes Esquire, I.C.S.,
Officer in charge of the
Department of Industries.

Recd & sent
on 11.11.16.

11/11/16
H. A. Innes

11/11/16
H. A. Innes

D.O.

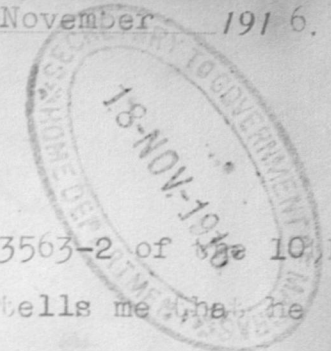
TELEGRAPHIC ADDRESS:
"CHROMIUM," MADRAS.
POST BOX No. 454.

Boil 4263
18.11.16

MADRAS,

G. Roc 53.

17th November 1916.



Dear Mr. Rajagopala Achariar,

With reference to your D.O. No. 3563-2 of 10th instant, I write to say that Dr. Marsden tells me that he has no knowledge whether dyes manufactured by Swiss firms are available in India. He does not know of any firm in India which acts as agents for any Swiss colour firm and cannot find any advertisement of Swiss dyes by dealers in the Trade Journal.

2. There is no information in this office as to the export of colours and colour materials from Switzerland having been prohibited by the Government of that country. On the contrary, in the Dyer and Calico Printer for the current month, which has just been received, I find an advertisement by the Sandoz Chemical Co. Ltd. and other Swiss makers in which they advertise aniline colours for all purposes. I believe that it was suggested that Swiss authorities should assist Swiss cotton manufacturers by prohibiting the export of dyestuffs to England unless England let larger supplies of cotton come out to Switzer-

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land, but it appears from the Dyer and Calico Printer for February 1, 16 that the Society of Chemical Industry at Basle, the most important Swiss colour makers, protested against this suggestion on the ground that virtually the entire production of Swiss dyestuffs was manufactured from coal tar products obtained from England, and that the exportation of these products to Switzerland having been permitted only on condition that a certain quantity of coal tar colours should be sent back to England, the proposal would naturally injure Swiss interests.

Yours sincerely,

Channer

The Hon'ble Dewan Bahadur

P. Rajagopala Achariar, Secretary to Government

Educational Department.

16

Home (20th) Dept.

Submitted. Please see pages 8 to 12 ante.

80x
20.11.16.
11/11/16
S.

Though there is a general prohibition to export dye stuffs from Switzerland, yet an exception seems to have been made in the case of Britain. Evidently however the amount that under this exemption is exported is limited & the amount that finds its way into the country must be small.

5 lbs
21.11.16

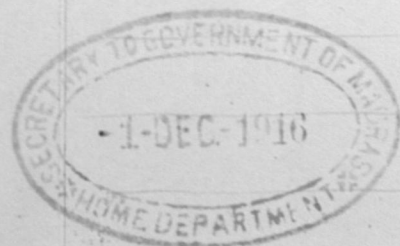
HE

Dispensed of
Mr. Dunn's note at
pages 11 & 12 - with reference
to HE's note at page 8.

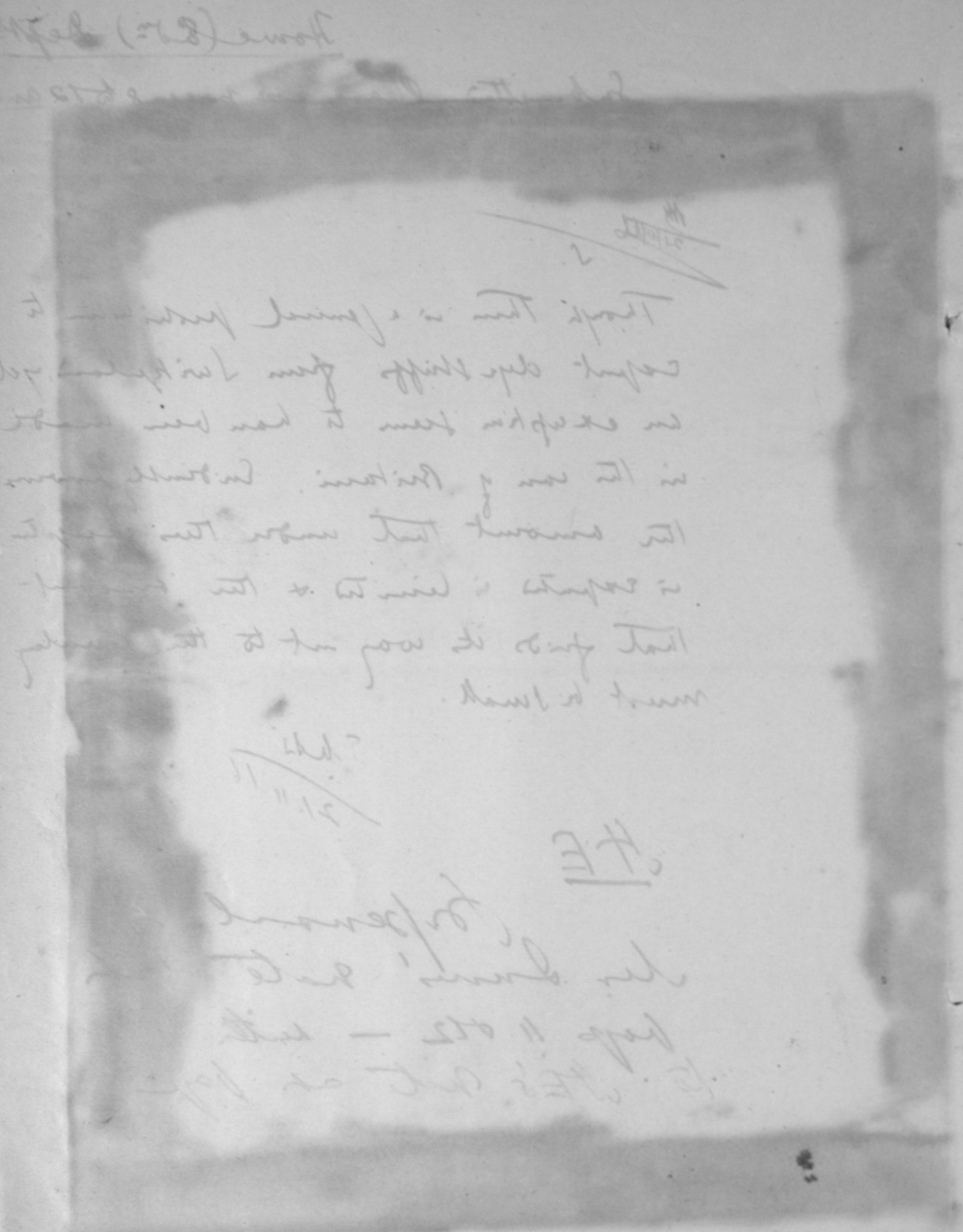
22/11/16

Returned with thanks.

(130) 4th Nov
30.11.16



Box 29
Ans 22/11
24th 30/11



With Mr. Bennett

Submitted for orders whether
any further action should be
taken on these papers ^{with reference to US's action p. 2} ~~whether~~ they
may be recorded.

80x
2.12.16

S.

118
5/12/16

N.E. seems to require no further
action to be taken in the Sect.

For US.

(Submitted that it has
been been ascertained
from the O.S.'s office
that this Excellency has written
privately to the Secretary
of State on the subject)

Copies of this letter
the reply thereto
will be found in
G.O. No. 840/23-6-17

80x
6.12.16

7/12/16.

A draft order is placed below.

80x
8.12.16.

118

11.12.16

Oyes

Recording papers ~~related~~^{relating to the} over the
subject of the ~~importation~~^{possibility of importing} of
dyes required in this Country
from the United Kingdom.

READ AGAIN G.O. No. _____ dated _____

READ AGAIN G.O. No., dated 191 .

” ” ” ” ” 191 .

READ ALSO:—

C. No. 3567, From the _____, No. _____, dated _____ 191 _____.

” ” 3744 ” ” ” ” 191

4263 191

ORDER.

His

No. 1348, dated 12.12.1916.

Records.

8k
8.12.16.

gurd

Emk

11.12.16

When given for copying _____
 When copied _____
 When examined _____
 When signed _____

18

READ AGAIN G.O., No.
 19

DATED

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT

LETTER OF GOVERNMENT

STATEMENT WITH DUTY

PAPERS NOT FILED UP, BEING MEANT FOR DESPATCH
 IN ORIGINAL

A A A A A A A

N.B.—

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