MIN/PEA/1#23

CONFIDENTIAL.

C.S.

~~1929~~. 1936.

No. ~~C/10/36~~

S. of S. Confidential Circular.

SUBJECT.

This is now on other file No 58/37

1936. ~~192~~

30th April.

RULES WITH REGARD TO APPLICATIONS FOR ASSISTANCE FROM THE FUNDS AVAILABLE FOR BRITISH COLONIES AND PROTECTORATES BY THE CARNEGIE CORPORATION OF NEW YORK.

Previous Paper.

264/32.

MINUTES.

1. S. of S. Conf. Circular of 30/4/36

Y.E.

May this desp. be circulated to members of Ex. Co. for their views & recommendations.

[illegible] 14/8/36

Please [illegible] 14/8/36

~~Hon'ble S.M.O.~~

~~Hon'ble G. Roberts~~ [illegible] 21/8/36.

Hon'ble A.L. Hoare.

Submitted for your views & recommendations. [illegible] 15/8/36

Subsequent Paper.

Hon. Col. Secretary,

There are several points which come to my mind in reading this Despatch.

1 Referring to your Defendant:—

(a) Assistance might be found for the training of a Sanitary Inspector either in the United Kingdom or America.

(b) The problem of malnutrition in the Colony is a subject which needs investigating & one of the medical officers might be seconded to carry out some research work in Europe or America on Nutrition.

2 Stock Department

The new Stock Adviser might be able to recommend some young educated local man who would be sent to observe the methods of sheep farming in other countries.

3 Agriculture

Considerable work is being done in the reclamation of peat lands in Germany, Sweden & the Highlands of Scotland. Some local person might be recommended to visit these places in order to obtain first hand information.

19-8.36.

S.M.O.

Hon. Colonial Secretary.

The Library & Museum Committee have during the last year received grants amounting to £300 from these funds, but the payment was made by the Museums Association which I understand has received a sum from the Trustees for the purpose of administering it for the benefit of museums in the Colonies. The application for assistance was made by the Museum Committee here direct to the Museums Association and not to the Trustees.

(Chairman, Stanley Library & Museum Committee)

24 Aug 36

38/37.

C.S.O. No. ~~4/0/31~~.

Inside Minute Paper.

Sheet No. 2.

Y.E.

The minutes of the Hon Sec/S. the Hon. A.R. Hoare are submitted.

2. In para 5 of the Dest. at ref ① the S/S states that recommendations should reach him towards the end of 1936.

3. It appears to me that the objects most likely to receive consideration are: Education, Libraries & Museums & I should be glad to know which of the suggestions submitted if another grant is to be applied for.

R.E.S. 1/9/36

1. NO suggestions have yet been made for expenditure on Educat An annual grant for scholarsh appeals to me more than any other object for expenditure but the form of assistance should be i I understand the grant of a capital sum only. We ha

2. libraries, museums got all we could ask in this direction

3. I think that we might a a lump sum grant of £750 enable an offr of this Governme to travel and investigate the utilisation of peat and kelp America Scotland and Germa

2/9/36

H of C.

I have now made the grant up to £1250 vide draft

[signature] 28/9/36

Confidential despatch to S. of S. of 2/10/36. (2-A)

Y.E.

Submitted for signature.

[initials] 5/10/36

9/X/36.

[signature] 10/x

Telegram No. 18 from S. of S. of 16. 2. 37. (5).

Minute to Director of Public Works of 8. 3. 37. (6).

await reply [initials]

Minute from D.P.W. of 17/3/37. (7)

H.E. Red 5 submitted. The reply to (a) is simple since the quantity available is practically unlimited. Presumably (b) refers to the raw material after production and with no expert advice, available is difficult to answer. For instance we have no information regarding cost of production of peat briquettes per ton. In the case of sand the cost would be its collection and transport to loading ship. So far as I am

58/37

C.S.O. No. ~~C/10/36~~ ....

Inside Minute Paper.

Sheet No. 3.....

aware kelp has not been handled here before. The cost of its collection would be comparatively high if it has to be cut from the sea bed. These seem matters that would require to be studied on the spot by an expert.

I was informed by the Director of a large glass manufacturing firm at Charlton, Eng: that he saw no reason why F.I. sand if suitable should not find a market in S. America if cheap freight could be obtained. He told me his own firm obtained sand from Germany and France and from certain parts of England. In many cases ships are glad to carry it at a very cheap rate as ballast and I believe sand is sent from Germany to S. America in this way.

MLH
C.S.
19.5.37

Red 5 does not show much intelligence.
The quantities of peat sand and kelp
are practically unlimited. It is ridiculous
to ~~talk~~ ask us about the cost of production and
potential market when we do not
know what we are going to produce. It
was for the very purpose of studying these
matters that we asked for a grant.
In respect of sand the F.I.C. are
I understand in contact with a B.A. firm

and we can wait for the outcome of
their negotiations before proceeding.

As regards ~~Kelp~~ peat, I think that
we had better send Mr Roberts a
copy of red 20 in ref 194/33 and ask
him to see Messrs Marshall Sons & Co.
if he thinks useful ~~and~~ or find out from
some other source where peat briquetting
is actually carried on and if he should
go to Germany as ~~they~~ he may be advised
and visit also the manufacture. This
should not take him more than two or
three weeks of his leave which can be
extended for the purpose. We would of
course meet his travelling expenses.

Kelp we must let alone for the
time unless Mr Roberts can find out
whether it is being commercially worked
any where within reach in which case
he can proceed as in the case of peat.

24/3/37

Please make this file open in the office
with a subsidiary file or else open a new jacket
with a subsidiary file.

Letter to Hon. G. Roberts of 24. 3. 37. (9)

H. Does H. wish to send a
reply to red 5.

MCH
29. 3. 37

No 30/3

C.S.O. No. ~~C/10/37~~ 58/37

Inside Minute Paper. *Sheet No.* 4

Report from ~~Hon.~~ D.P.W. of 18th. Aug. 1937.
" " " " " 28th. Aug. 1937.

10-21.
22-27.

G.A
31/8/37.

Y.E.

Rules (10) to (27).
Thank Mr. Roberts for his report?
The final recommendations of the D.P.W. are
advised (22).

2. In rel (20) the D.P.W. asks for a letter of thanks to those who assisted him and in particular a Mr. McMahon. Mr. MAHON

3. The D.P.W. also suggests in rel (11) the purchase of two Professor Taylor Peat Ovens.

19/8/37

Hon. C.S.

Please thank the Hon. G. Roberts for his very interesting reports.

2. Letters of thanks may go to those persons mentioned by Mr. Roberts.

3. It would appear doubtful whether any of our resources such as peat or kelp could be made use of with any prospect of success financially. The present benefit from Mr. Roberts visits to Ireland appears to be the importance and interesting discovery of a stove that will give double the heating

power of peat by using the gas as the agency. Such a stove if found successful would effect a big saving in our fuel bill.

I understood Mr Roberts to say he had ordered such a stove or stoves. I agree that the stove recommended should be obtained.

4. It is to be hoped that Carrageen moss mentioned in red 25 can be found here.

5. The remarks on reds 24-25 regarding Woollen factory are most interesting especially in view of the recent correspondence from the C.O. regarding the establishment of a spinning industry here. Let that file go to the Hon. G. Roberts for his views. 72/37.

6. I believe the question of the utilization of peat was taken up by a Coy in 1908. Insufficient depth of our peat was I believe held to be against successful manufacture.

MCH
19.10.37

My own view is that before consideration could be given to the development of local resources such as peat and kelp a visit from an expert would be necessary.

MCH

C.S.O. No. 58/37.

Inside Minute Paper.

Sheet No. 5.

(28) Minute to Hon. G. Roberts of 20/10/37.
(29) Letter to Commander D. W. MacLeay of 29/10/37.
(30) " " Director, Ind. Devel^nt Board " "

Please attach paper re woollen factory.

31-39. S. of S. despatch No. 124 of 22/9/37.

Y.E. Submitted.

[initials]
30/11/37

H. Hon. C.S.

Seen. This file can be brought up after the return of Sir Herrick Heaton.

[initials]
1. XII. 37

B.U. 28/11/37
[initials] 2/11/37

K. File submitted. The file regarding the establishment of a Spinning Industry is at present with the Agric: Adviser.

2. Two peat stoves have been received. I am not aware that these have yet been tested but the matter will be referred to the

D.P. Wks for report.
MCH.
C.S.
6. 1. 38

I consider (10) to (27) a very valuable contribution towards consideration in the future of the development of minor industries in this Colony. The report must in fact be the basis for such consideration and Mr. Roberts should be specially thanked.

Sir George Clark who is I understand a railway magnate in Northern Ireland has been interested in the proposals by Commander Mackay. He met me in London and I told him (being in concurrence with the last script to your minute of 19.10.37) that the only measure that could be taken was for his interests to send an expert to visit the Colony. I made it clear – having the report of Mr. Roberts in mind – that I had little or no faith in the possibilities from the exploitation of peat and no sufficient basis on which to form any opinion regarding other industries.

Members of Ex. Co. sh^d. all see Mr. Roberts' report. Separate files should be open for the shoes and for carragheen moss and tilemaking

[signature] 6/1/38

9/105/37.
11/38.
12/38.

C.S.O. No. 58/37.

Inside Minute Paper.

Sheet No. 6.

A. C.S.

For action in due course on the last para: of H.E.'s minute.

MCH

Hon. Treasurer. [initials] 8/1/37
" S. M.O. ✓
" ~~G. Roberts~~ [initials] 11/1/38
" ~~A.~~ R. Hoare, [initials] 17 Jan 38
" L. W. H. Young [signature] 11.1.38

To see.

C. [initials] Clerk, Ex.Co.
7/1/38.

Reports read - the outstanding feature of practical importance for the Falklands seems to me the fact that there has been actually demonstrated to Mr. Roberts that the local methods of burning peat are wasteful, and inefficient to boot. If Mr. Roberts can introduce this idea here he will have made a fundamental contribution to the Colony's happiness.

[signature]
S.M.O.
10.1.38

H.E.

Submitted. Separate files have been opened regarding Carrageen Moss and Tile making.

MCH
C.S.
21. 1. 38

~~[initials]~~ 24/1/38

P.A.

Letter from Turf Development Board, Dublin, 11.12.37. (41)

V. Submitted for information.

MCH
C.S.
28. 1. 38

~~MCH~~ 29/1/38

P.A.
29/1/38

Minute from D.P.W., of 23rd May, 1938. 42-48.

D.P. Wks.

Seen. This is most satisfactory. Please write to the firm as you propose.

MCH
C.S.
25. 5. 38

Hon. Col. Sec.

Letter of acknowledgement and thanks has been sent off today.

[illegible] Roberts.
26/5/38.

P.A.
26/5/38

~~Advice of Orders Placed of 3.5.38~~ ~~49-51.~~

Letter from Commander D.M. Hervey-Macleay 12.7.38. (49)

C.S.O. No. 58/37

Inside Minute Paper.

Sheet No. 1

Sk.

Submitted. No further action was taken but I see no reason why samples of Turf and Kelp should not be sent for examination.

MCH
CI.
1.9.38

It is a pity that there has been a diff particularly after the very successful experiments with the Taylor Range. I have no hopes at present for the successful exploitation of peat locally but there may be something in the kelp proposition. I know nothing of Messrs Johnstone but there is no reason why we should not send them a quantity of air dried kelp say one ton. However this should be made a matter for the Agricultural Depmt. to see through and this file sh^d be referred to the A.A. for his observations. Have we not two quite different qualities of kelp one called tree kelp?

I. As regards the stones that remain

a matter for the P.W.D. That Dept. might you write to the Drogheda Iron Works Co. for say 100 copies of no 44 which can be circulated to the farms and in Stanley but the cost of them has to be stated. The firm does not give this

[signature] 3/8/38

D. P. Wks.

For action please in conformity with H.E.'s instructions.

MCH
C.S.
5.9.38

Hon Col Sec.

Copy of letter to Drogheda Iron Works Co. (50)

[signature]
12/9/38.

Seen. P.A.

MCH
14.9.38

Letter from Secretary, Col. Empire Marketing Board 15/11/38. (51)

A. A.

For your observations please on Red (51).

[signature]
for C.S.
28/12/38

C.S.O. No. 58/37

Inside Minute Paper.

Sheet No. 8

Hon. Col. Sec.

I have the honour to advise that I have seen for the first time H.E's minute of 3/9/39 and will take immediate steps to collect and air dry a quantity of the various varieties of kelp to send to John Wolstenholme & Son Ltd.

In order to procure some variieties of the kelp it may be necessary to use the scow, which could be taken in tow by the "Alert". This will take a little time, but weather conditions at this time of year will facilitate the work. A progress report will be made at an early date.

D. Sawyer.
Agricultural Adviser.

Submitted.
MCH
16. 1. 39

This file should not have been put aside
Will you please have my reply to Commander Mackay typed for my signature
Kelp should then be collected for the firm and for the Empire Marketing Board
16/1/39

Kelp is not the type of sea-weed referred to in (51). Mention of the particular weed was made by Mr Roberts in another file. Please attach.

Samples of turf are also required.

MCH
17.1.39.

Letter to Col. D. H. MacLeay of 17/1/39. 52-54.

PS.
Letter submitted for signature.

MCH
CS
17.1.39.

[initials] 17/1

Agric. Adviser.
Please proceed with the kelp required. Samples of turf (peat) also are required.

Can you get any of the moss mentioned in 11/38. Miss Eileen Felton is now in the Colony and could perhaps say where it can be got.
See red (51).

MCH
CS
18.1.39.

Hon Col Sec
You have asked for this file. I will deal with the question of samples when opportunity offers - meantime I will see Miss Felton.

[initials]
AA. 25/2/39.

C.S.O. No. 58/37.

Inside Minute Paper.

Sheet No. 9.

55. S. of S. Conf. Circ. of 12/1/39.

Y.E.

Submitted. A previous application herein (red 4) was not successful.

W.H.
C.S.
25. 2. 39.

I would like a separate open file with a copy of red ① and (55) having the same title as C/10/36

Red ① could be detached if necessary and a cross reference made

The former application was turned down and we cannot now look to the Carnegie Corporation for development of our resources. I have another scheme in view which might be suitable

[illegible] 27/2/39

H.C.S.

Opportunity for taking further advantage of the munificence of the Carnegie Corporation (museum cases were presented by them) is still lacking and this file is no longer suitable. I have minuted the separate file 34/39 sent up by you.

The letter recently recd. by me by Mr. Young on peat briquetting was sent to you. It will be put up here?

[signature] 16/5/39

Letter from Cdr: D.H. MacLeay of 9/3/39. (56)

" " Hon. L.W.H. Young of 14/4/39. (57-59)

H.

Submitted. No report has yet been received from the Agric. Advisor regarding the samples of Peat, Kelp and Sea-weed he was asked to obtain.

MCH
C.S.
17.5.39.

To A.A. for report + / or action

[signature] 18/5/39

C.S.O. No. 58/37

Inside Minute Paper.

Sheet No. 10.

Agric: Adviser.

To you accordingly.

MCH
C.S.
18.5.39.

Hon.Col. Sec.

I have the honour to inform you -:

1. Samples of peat have been taken at intervals from a bank six feet deep, and these are being dried in the front porch at my Office.

2. Kelp is being dried in specially prepared hanks of convenient size for packing.

The drying process is slow but will be satisfactorily accomplished in the Quarantine Station at Navy Point.

D S Allen
Agricultural Adviser.
26/5/39.

CAN.

Note. In another file the Agric. Adviser stated he had been unable to get carrigeen ~~moss~~ Kelp here.
MCH
C.S.

H.E. Submitted. Does H.E. wish to reply to Mr Youngs letter.

MCH
C.S.
26.5.39.

Letter put up. Will you pl. reply to Crown Agents Dr MacLeay giving him the information he requires saying that searches have failed to find Carrigeen here and that some peat will be sent to him apart from what is going to Wolstenholme re ~~[illegible]~~ 31/5

Letter to Hon. L. W. H. Young of 31/5/39. (60)
" " Cdr. D. H. MacLeay of 1/6/39. (61)

Hyne: Adviser.
To note.
MCH
C.S.
1. 6. 39.

Hon. Col. Sec
noted
[signature]
A.A. 2/6/39

B.F. 30/6/39
[initials] 2/6/39.

Y/L.

Mr Creamer has asked if Y/L. received from Mr. Roberts a letter about peat. He states that Wilsons, Montevideo, are interested and ask for samples about 5 tons or 100 bags and if Govt. will supply the peat the Company will convey it to Montevideo.

MCH
CS.
24.7.38.

(62)

Mr. Roberts' letter herewith. He should be put on file. I will be glad if P.W.D. will deliver the peat at the Company's jetty as requested.

24/7/38

Y/L. Has Y/L. got 58/37 regarding peat?

MCH
CS.
26.7.38.

Herewith 27/7

Letter from Sec. Col. Empire Marketing Board of 22/5/39. (63)

D.P. Wks.

To note H.E.'s minute overleaf. 100 bags of peat are required. Will you arrange with the F.Is. Co. Ltd. when and where they wish it delivered.

MCH
C.S.
27.7.39.

Hon; Col Sec,

100 bags Peat have been delivered at F.I.Co's Jetty, Comp :-

33 bags marked No 1, cut from depth of 6' in diddle-dee bank.

33 bags marked No 2, cut from depth of 3' in grassland bank.

34 bags marked No 3. cut from depth of 1'6" to 2' in grassland bank.

[signature]
O.i.c. P.W.Dept.
8/8/39.

Agric: Adviser.

To see. Regarding red 63 the Seaweeds mentioned are not obtainable here?

MCH
C.S.
9.8.39

Letter to Manager, F.I.C, of 8. 8. 39. (64)

Hon. Col. Sec.

As far as I have been able to ascertain the seaweeds mentioned are not obtainable here.

[signature]
A.A. 18/8/39

For letter to (63) accordingly.
MCH

Letter to Secretary, E.M. Board of 19/8/39. (65)

[initials]
19/8/39

C.S.O. No. 58/37

Inside Minute Paper. Sheet No. 12

66-67 Letter from Hon. D.M. McLeay of 12.7.39.

Agric: Adviser

How does the matter stand regarding the samples of peat, kelp and seaweed asked for by Commdr R. MacLeay. Please see X of red 67.

MCH
CS
14.9.39.

Hon-Col-Sec

Samples are now ready. Is it intended that they should be sent next voyage of the Lafonia?

DRAW
A.A. 9/10/39

B.U. 31.X.39
MCH 9.X.39

Agric: Adviser,

Are the samples very bulky? Some have to go to one destination and some to another.

MCH
CS.
31.X.39

Hon. Col. Sec.

I have the honour to inform you that one box of kelp containing 11 lbs has been despatched to Messrs Wolstenholme and Company and one box containing 6 lbs has been sent to Commander Hervey-MacLeay by this mail.

One box of peat containing 4 lbs has been sent to Messrs Wolstenholme and one box containing 4 lbs to Commander McLeay. Each box of peat contains 4 samples ~~of peat~~ as under :-

No 1. Top Sod
" 2. 2 ft down
" 3. 4 ft down
" 4. 6 ft down

Will you advise them.

Agricultural Adviser.
8/11/39

Letter to Com. D. Hervey-MacKeay, R.N. of 8/11/39. (68)
Agricultural Adviser,

to note.
for C.S.
9.11.39.

Hon. Col. Sec.
noted
P.A
10.11.39.

9/11/39

Letter from Com. D. Hervey MacKay, R.N. of 16/3/40. 69-70-71.

Y.E. (21) & its enclosures with interest for I think.

9/4/40

Very much 9/5/40

(1)

CIRCULAR.

CONFIDENTIAL.

Downing Street,

30th April, 1936.

Sir,

I have recently had under my consideration the question whether any definite rules should be laid down with regard to applications for assistance from the funds which have generously been made available for British Colonies and Protectorates by the Carnegie Corporation of New York.

2. *Dr. Keppel, who is the President of the Carnegie Corporation, has made a practice of visiting England about every other year and advantage has been taken of his presence to submit to him instances in which grants from the Carnegie Corporation might be usefully employed in British Colonies and Protectorates on the public objects which make special appeal to the Trustees. Various grants resulted from this procedure on the occasion of Dr. Keppel's last visit, and the generosity of the Trustees has conferred substantial benefits upon the Colonial Empire.*

3. *I find, however, that in certain cases applications have been submitted direct to the Trustees either by Colonial Governments or by other bodies or individuals in particular Colonies. The Trustees are obviously at liberty to consider applications which may be received from any source, but as the funds at their disposal are not unlimited, and as they have been good enough to consult the Colonial Office as to the most profitable method of disposing of them, I consider it to be the duty of the Secretary of State to make some estimate of the relative importance and urgency of claims which may be forthcoming from different Colonies, and to tender advice to the Trustees as to the order in which preference should be given to applications which they may consider.*

4. *I therefore think it desirable that applications for assistance from the Carnegie Corporation should in future be submitted to the Trustees either through the Secretary of State or after his prior approval for the submission has been obtained.*

5. *I understand that Dr. Keppel will be coming to England in the summer of next year, and it will probably then be my privilege to make suggestions to him as to the manner in which the funds available to the Trustees could most usefully be employed.*

The Officer Administering

the Government of

I cannot make any estimate of the amount of money which the Trustees may be able and willing to allot, but I would suggest that you should consider whether there is any public purpose in the territory under your administration for which you would wish to seek assistance from the Trustees, in order that I may be fully advised when I submit proposals to Dr. Keppel next year. Your recommendations in this connection should reach me towards the end of 1936.

6. *In order to ensure the elimination of unacceptable proposals, it may be well to remind you that one of the objects for which the Carnegie Corporation of New York was founded is "the advancement and diffusion of knowledge and understanding among the peoples of . . . the British Colonies." The interpretation placed by the Trustees on this formula may be inferred from the grants which they have actually made for the benefit of British Colonies and Protectorates. Thus from time to time they have devoted considerable sums to the cause of education, to the development of libraries and museums, to the promotion of exchange of visits between the Colonies, Dominions and the United States, to the publication of books, and to such projects as the African Research Survey (now being conducted by Sir Malcolm Hailey) and the "refresher year" fund for Colonial Civil Servants. On the other hand, it is understood that the Corporation aims at avoiding any overlap with other benevolent foundations which are interested in such objects as the promotion of public health. I trust that in this paragraph I have succeeded in indicating the kind of educational and cultural interests which are likely to commend themselves to the Trustees.*

7. *A point to which I would invite special attention is the fact that it is often the practice of the Trustees to make a grant to meet the capital expenditure on some public purpose, leaving subsequent annual recurrent charges to be met from other sources. It is important that this should be borne in mind, and that in any application which may be submitted to me consideration should be given to the question of meeting the recurrent charges which a capital grant by the Corporation in the first instance may subsequently entail.*

I have the honour to be,

Sir,

Your most obedient, humble servant,

J. H. THOMAS.

GOVERNMENT HOUSE,

STANLEY.

2nd October, 1956.

FALKLAND ISLANDS.

CONFIDENTIAL.

Sir,

I have the honour to refer to Mr. Thomas' Confidential Circular despatch of the 30th April relative to the assistance from funds which have been made available for British Colonies by the Carnegie Corporation of New York and to ask that the Trustees of the fund be approached through Dr. Kappel for the purpose of obtaining an allotment of funds for public purposes in this Colony.

2. For a considerable number of years it has been the desire of this administration to develop the dormant natural resources on this Colony, in which as you are aware the sole industry at present is that of the production of wool. I refer particularly to the possibility of utilizing for industrial purposes our extensive peat supplies (for a fuel export trade), the kelp which abounds in the harbours and round the coasts and the large quantities of sand suitable for glassmaking The first and third of these have a potential market in South America but it has been useless to endeavour to build up a trade in the absence of any persons in the Colony with technical knowledge and owing to the difficulty/

THE RIGHT HONOURABLE
W. G. ORMSBY-GORE, P.C., M.P.,
SECRETARY OF STATE FOR THE COLONIES.

difficulty of ensuring regular transport facilities. The latter obstacle has now been met by the acquisition by the Falkland Islands Company of a vessel designed for the Colonial - South American trade.

3. I submit that the diffusion of knowledge in the Colony could not be better served than by a senior officer of the administration being detailed to visit Great Britain, the United States of America and Germany with a view to studying in those countries the utilization of the resources mentioned. Correspondence has from time to time been entered upon with manufacturers and with the Imperial Institute in relation to minor industries but it has led nowhere. Personal investigation by an experienced practical man such as the Director of Public Works affords solid ground for hoping that valuable results might be achieved and the ignorance of government and governed alike of any industry but that of sheep farming enlightened.

4. There is unfortunately no likelihood of its becoming possible within any measurable time for the Government to be able to afford the expenditure on the investigations and I trust that you can see your way to proposing to the Carnegie Corporation a grant of £1,200 for the purpose indicated. The sum would be made up as follows :-

Salary	£700
Travelling..	200
Subsistence allowance and all incidentals ...	300
	£ 1,200

5. The project under reference can I suggest be clearly differentiated from the "refresher year" fund scheme for Colonial Civil Servants and an analogy can be found in the African Research Survey work.

I have the honour to be,

Sir,

Your most obedient
humble servant,

(Sgd.) H. HENNIKER-HEATON

C/10/36. (5)

DECODE.

TELEGRAM.

From Secretary of State for the Colonies,

To His Excellency the Governor.

Despatched: 16th February, *19* 37. *Time:* 1955.

Received: 17th February, *19* 37. *Time:* 1130.

Red 4

No. 18. Confidential. Your despatch 2nd October Confidential. Fear application is not suitable recommendation to Carnegie Corporation but suggest it should be made to Colonial Development Advisory Committee. If you agree please forward application in the usual form and furnish as much information as possible regarding

(a) quantity of material available

(b) cost of production and transport and

(c) potential market in South America.

SECRETARY OF STATE.

(6)

No. C/10/36.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

MINUTE.

8th March, 1937.

From The Colonial Secretary, STANLEY.

To The Director of Public Works, STANLEY.

CONFIDENTIAL.

Can you give an estimate of the cost of obtaining (for manufacture), sand, kelp and peat. The cost should be per ton.

COLONIAL SECRETARY.

(7)

No.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

MINUTE.

17th March, 1937.

From DIRECTOR OF PUBLIC WORKS.

To THE HONOURABLE COLONIAL SECRETARY. Stanley.

Hon Col Sec,

With reference to your minute No C/10/36, of the 8th March 1937, I beg to submit estimate of approximate cost of obtaining peat, sand, and kelp, as under. :-

PEAT. 9 cu yds dried as fuel, delivered in township per ton. 14. 0

SAND. delivered by boat from Port William. 10. 0

delivered by lorry from Surf Bay, 7. 0

KELP. I know of no instance when this has been collected as a commercial proposition.

To obtain any fairly large quantity, it would be necessary to work with lighter and tackle at a large deposit such as that on the north side of Port William, and with a lighter of 50 tons, including towage, it should not exceed a figure of say, per ton, 6. 6.

for D.P.W.

58/37.

24th March, 37.

Sir,

I am directed by the Governor to inform you that for a considerable number of years as you are aware, it has been the desire of this Government to develop the dormant natural resources on this Colony in which the sole industry at present is that of the production of wool.

2. I am to refer particularly to the possibility of utilizing for industrial purposes the extensive peat supplies, and in this connection to transmit to you the accompanying copy of a letter from Messrs Marshall Sons and Company of Gainsborough, England.

3. I am to request that you will be so good as to see this form regarding the utilization of peat, if you think such a course would be useful, or to ascertain from other sources where peat briquetting is actually carried on, and if necessary to proceed to Sweden or Germany as you may be advised for the purpose of investigating the Manufacture of peat briquettes and other products of peat.

4. I am to add that this should not take up more than two or three weeks of your leave which, if necessary, can be extended for the purpose. This Government will be prepared to meet your travelling expenses.

The Honourable
G. Roberts,
111, Station Road,
Rainham, Kent.

5./

5. I am to add further that you should make enquiries as to whether Kelp is being commercially worked any where within reach in which case perhaps you will be good enough to take similar steps as in the case of peat to investigate its manufacture.

I am,

Sir,

Your obedient servant,

McH.

Colonial Secretary.

(21)

18th August, 1937.

The Honourable the Colonial Secretary.

Sir,

With reference to your letter dated 24th March, 1937, reference No. 58/37, in which I was instructed to investigate the manufacture of peat briquettes and other products of peat, also to make enquiries as to the uses of kelp, etc., I have the honour to forward a summary of the action taken, and general report thereon.

Encl. 9.

After considerable correspondence between various Government departments, the Imperial Institute arranged with the High Commissioner for the Irish Free State for me to visit Ireland. Accordingly I crossed to Dublin on the night of the 20th July, and returned on the 26th July. Whilst there I visited peat briquetting works and feilds at Lullymore, Clonsast and Turraune.

Several useful meetings were held at the offices of the Turf Development Board, at which their principal engineers and German Adviser were present.

Whilst in Dublin I had the privilege of seeing a demonstration of cooking and heating with special stoves constructed for peat burning. The demonstration was given for my benefit by Professor Taylor of the Irish Free State College of Science, he being the designer of what is known as the "Professor Taylor" Stove. He has for some years been in charge of all experiments and trials in connection with turf burning in Ireland.

I was also introduced to, and had interesting conversations with, Commander D.N.MacLeay, A.M.I.M.E., R.N. (Retd). He is at present heating and consulting engineer to several well known firms, and has been working in close co-operation with Professor Taylor during the production of special furnaces and stoves in connection with experiments being carried out on behalf of the Irish Free State Government.

When making my investigations, I found all at the Turf Development Board most helpful. They placed motor transport and an engineer at my disposal, made arrangements for people to meet me at the various places visited, and did everything they possibly could to assist me. I suggest that a letter of thanks might be sent, making special mention of Mr. McMahon, the engineer in charge.

Methods of Production.

There are two methods of producing peat suitable for commercial and domestic purposes. They are :-

(1) Peat in briquette form.

(2) Machine cut air-dried peat.

I will deal with them in the above order. The briquette form is the more presentable from a commercial point of view and lends itself to baling for transport.

It is, however, a complicated and expensive process requiring several skilled men to run the plant.

The works at Lullymore which I inspected cost between £80,000 and £90,000; and so far only a limited quantity has been produced. The works have not operated this year owing, chiefly, to bad weather and strikes.

The method of winning peat for briquetting is entirely different from the usual method of winning. It is scratched from the top of the bog by a machine similar to a harrow, which cuts to a depth of three quarters of an inch. The fine peat thus produced is left to partly dry, and is then transferred daily by mechanical conveyors from one drying ground to another, until it is dried to about 30% moisture content. It is then loaded into rail trucks and transported to a dump outside the main factory.

The aim of the management is to accumulate sufficient peat comb in this dump to enable the factory to continue working during the winter months. Up to the present time, the aim has not been achieved.

The fine peat in the dump is similar to what we in the Falklands call "sweepings". (If stored in the open in the Colony, it would quickly get blown away.)

The peat from the dump is conveyed to the factory by a mechanical conveyor belt. It is then screened, ground and dried, the moisture content being reduced from 30% to about 5%; when finally it passes to the briquetting machine, it is fine dust very similar in appearance to coffee.

The staff required to run the plant is

1 Manager
1 Assistant Manager
1 Chief Clerk
2 Assistant Clerks (girls)
1 Chemist
3 Fitters (one each shift)
1 Electrician
15 Semi-skilled Labourers

The briquettes are costing 11/- per ton to produce at the works, and after being transported

some 40 miles by canal barge to Dublin, they are sold at 38/- per ton.

It is essential that the plant should run for the full twentyfour hours, as a head of steam has to be maintained for drying purposes.

The system in use at Lullymore is known as the Fracser system.

The works are being run by a private company which is receiving assistance from the Irish Free State Government.

Machine cut air-dried peat.

At Turraune, Offaly, the Turf Development Board have a bog which has an area of approximately 1,300 acres with a depth of some 20 feet of black peat.

Originally the bog was worked on behalf of Sir John Griffith for the production of domestic fuel; it was not a success, and the Turf Development Board has taken it over for further experimental purposes.

It is here that the Board has two Welland machines, each capable of cutting and spreading 15 tons of peat per hour. The machines are driven by electric motors, the power being supplied by a small Power Station, situated on the bog and driven by a 110 H.P. engine fitted with a furnace for peat firing.

There are some 4 miles of power lines and about 5 miles of light railway on the bog. The turf or peat is drawn from the bog to the stockyard in bogies by Diesel driven locos.

The Welland machine operates from the top of the bog and dredges peat from a trench with 8 to 13 feet of cutting face.

The machines require five men to work them; two in the trench, one on the machine and two on the spreader.

The peat is dredged, elevated into a hopper, and passed through a macerator; it is then forced through a nozzle which forms the macerated peat into sizeble sods, and passes them on to a spreader which automatically spreads them evenly over the bog for drying. The length of the spreader can be varied , its maximum reach being approximately 55 yards. The whole of the plant is mounted on caterpillars, the pressure exerted on the bog being about 2 cwt. per square foot. Each machine has an output of 20,000 tons of air-dried peat per season, (the season in Ireland is slightly shorter then that in the Falkland Islands). It travels about 24 miles of working face per season, making two cuts at each face; this means about 11 to 12 miles of face are required for one machine.

There is no difficulty in getting long trenches on the Irish bogs, they are very extensive and flat.

The Turf Development Board estimate the loss of working hours due to mechanical break-downs and bad weather at 25%. I see no reason why this figure should be exceeded even in a climate like the Falkland Islands, where we have long spells of drying winds.

Rickling and Stacking.

No satisfactory equipment has yet been devised for carrying out this work. It is carried out by hand, mostly on piecework rates as is the custom in the Falkland Islands.

Clonsast peat Fields.

Here the Turf Development Board are draining a bog of some 80, 000 acres with an average depth of 20 feet of peat.

They contemplate machine cutting and air-drying in 1939. It is estimated that it will take 3 years to complete the drainage scheme on this area. Up to the present time, they have some 190 miles of drainage trenches cut.

The Board have placed an order for 14 German machines of the Weiland type, and also have a German expert advising them on their methods of draining this bog. When cutting operations commence, this field will have the largest output in the country.

Transport.

The transport of the air dried peat from the field to the consumer is expensive and presents some difficulty. It is at present conveyed in sacks which cost 1s. 6d. each, whereas the peat contained in the bag is worth only 1s.5d. There is a very high mortality in bags, and the Board is considering using metal collapsible containers which will hold about half a ton each.

The briquettes are much easier to transport; they are wired in bales, weighing about 28 lbs. each. Enquiries showed that after delivery from the factory the briquettes quickly absorb moisture, causing the bales to expand and so snap the binding wires. This, I think could be avoided by binding with hoop iron and allowing a little for expansion.

Conclusion with regard to the Irish Peat Industry.

That as far as producing peat for commercial and domestic use Ireland is still at the experimental stage. The Government has spent large sums of money on developing their peat fields. They are, however, optimistic and claim that in about three years' time, when the new machines are working, and direct rail communication between Dublin and the peat fields has been laid, they will be able to compete with coal.

On all sides, one heard complaints of delays by strikes and failure to produce at economical prices; but hopes were expressed that better fortune would follow the arrival of the new machines and the introduction by the Government of legislation to compel the people to purchase a quota of peat for all coal bought.

Peat Industry in respect of the Falkland Islands as compared with Ireland.

Bog Area.

Nowhere in the Falklands have I seen bogs that can be compared in size with those in the Irish Free State. The bogs in Ireland are much more extensive, being in some cases 4 to 5 miles square, almost levelland 20 feet in depth . Whereas in the Falklands, they are what can be termed hilly bogs, the biggest being not more then 1 to 1½ miles square, with a depth of 3 to 8 feet, an uneven surface and outcrops of rock on the floor of the bog.

Market.

In Ireland, they have the market in the country for both domestic and commercial use.

In the Falkland Islands, the market must be found in South America, which means a substantial freight charge and most likely an import duty; also, before peat can be economically used for commercial purposes, it is necessary to alter the boiler furnaces so that the best uses can be made of the gases produced.

It has been proved at the College of Science, Dublin, that peat used in an ordinary furnace is wasteful and not an economical proposition. In view of this, it would be necessary for the intending users of peat fuel to have installed producer furnaces in their factories.

PRODUCTION AND COST.

Briquetting.

The briquetting system requires perfectly level bogs, complicated and expensive machinery which means importing skilled labour.

I submit that this cannot be considered in the Falkland Islands.

Dredging and Air-dried.

Provided suitable bogs could be found, the Weiland Dredger Machine similar to those in use at Turraune could be used, except that they would have to be adapted for cutting from the bottom as well as the top of the bogs, and would be diesel driven, instead of electrically. I am informed that such a machine capable of producing 20,000 tons of peat per season would cost in Germany approximately £3,500. To this must be added the cost of light railway, mechanical transport, working sheds, jetty and possibly living quarters for the men.

In all I estimate the minimum cost at £12,000.

When considering comparative cost of production, I am of opinion that the cost would be approximately double that in Ireland.

On daywork rates, the Irish labourer gets 7d per hour. In the Falkland Islands, the rate is 1s. 2d. per hour. Piecework rates for hand cutting peat are;-

Ireland 2½d. per Cub. yd.
Falkland Islands 6d. to 7d per Cub.yd.

Moisture Content.

Some difficulty is experienced in Ireland in getting the dried peat down to the desired moisture content, which is 30%.

I estimate that, with the drying winds in the Falklands, there should be no difficulty in getting the peat down to 20% moisture content.

Calorific Value.

The calorific value of Irish peat averages 5,726 B.T.U's. at 39% moisture content.

The calorific value of Falkland Islands peat tested in 1921, was 7,800 B.T.U.'s at 26% moisture content, therefore the peat in the Falklands is of better quality than the Irish.

The Calorific value of the Falkland peat was tested from very small samples and should therefore be taken with some reserve. Before the real value can be ascertained, it will be necessary to take samples of bogs at intervals of 2 feet in depth and at points 1,000 feet apart. I propose to get samples and forward them to the Imperial Institute and furnace experts for tests and report.

Drainage.

Owing to the nature of the ground and the easy slopes where most of the peat is found in the Falklands, the drainage should be much easier and more effective in reducing moisture content than it is in Ireland.

Survey.

The first thing to consider in any bog area that it is proposed to develop, is the carrying out of accurate and detailed surveys to determine the number and position of drains necessary. The depths and quality of the peat, and the ultimate analysis of samples giving the ash content and calorific value, etc.

No work of this nature has so far been carried out in the Falkland Islands. I estimate the work would take approximately twelve months.

Professor Taylor Peat Stoves.

Professor Taylor of the Dublin College of Science has for years been experimenting with peat as a fuel; his main object has been the design of an efficient furnace which would utilize all the gases in the fuel to the best advantage.

He has recently produced a cooking range, which in many respects is like the Stanley Range so much used in the Falklands. He tested his range with the Stanley in my presence. The former consumed just half the amount of peat which the Stanley did, and yet boiled water and heated the oven in about half the time. This range is shortly being put on the market by the Drogheda Iron Works Co. Ltd., of Drogheda, Ireland.

I recommend that the Government purchase two

of these stoves for demonstration purposes and later fit them to Government Quarters. I feel sure that they would prove a great saving and benefit to all householders using peat.

With regard to the Heating stove, a very efficient one has been built at the College. It is worked on the gas producer system, having several elements in front. It shows a pleasant red glare through a mica panel. The stove is fired from the back, the gases from the burning peat passing under a bridge at the bottom of the stove and thence through the elements situated on the top of the arch.

The stove is considered to be the acme of efficiency and is pleasing to the eye.

It produces the same heat for 4 lbs. of peat as the ordinary slow combustion stove does for 10lbs., in addition to which it heats a hot water coil capable of supplying several gallons of hot water per hour.

This stove has not yet been put on the market, but I have written to an Irish Firm that proposes to produce them later on, so that they can keep me informed of sizes and prices.

Useful data with regard to peat.

2 tons of peat	..	1 ton of coal.
100 cubic ft of peat	..	1 ton " "
70 cubic ft of briquettes	..	1 ton " "
Dredged peat at bog costs		15/6 per ton
Dredged peat sells in Dublin at		30/- " "
Briquettes cost at works.		11/- " "
Briquettes sell in Dublin at		38/- " "
Price of coal in Dublin		48/- " "

Labourers' wages per hour.

Ireland ..... 7d per hour.

Falkland Islands ..... 1/2 " "

Rates for Cutting peat by hand.

Ireland ..... 2½d per cub. yd.

Falkland Islands..... 6d. " " "

Samples of Irish Peat.

Samples of both briquettes and machine cut peat were obtained from the works and can be seen at the Director of Public Works Office, Stanley.

I am, Sir,
Your obedient servant,

G. Roberts
Director of Public Works.
18th August, 1937.

(21)

28th August, 1937.

The Honourable the Colonial Secretary.

Sir,

With reference to your letter dated the 24th March 1937, reference No. 58/37, and further to my report thereon dated 18th August, 1937, I beg to report that after having obtained His Excellency's approval, I paid a further visit to Ireland for the purpose of investigating the possibilities of introducing new industries into the Falkland Islands, other than the utilization of peat.

I crossed over to Ireland on the 21st August, and returned on the 25th August, 1937.

Through the courtesy of Commander D.N. MacLeay, A.M.I.M.E. to whom I referred in my previous report, I was able to visit several places including the following works.

Galway.

(1) Iodine factory.
(2) Artificial manure factory.
(3) Woollen mills.
(4) Ice factory.
(5) Works for making roofing tiles.

Athlone.

Woollen and cotton factory using gas producer furnace fired entirely with peat.

Manchester.

Gas producer furnaces at. Reynolds chain works, Hospital for Cancer, Poor Law institution and General Hospital.

The factories in Galway are owned by Thomas McDonogh and Sons Ltd, and are managed by Mr. F. Coy. The latter gave me every facility and personally accompanied me

round the works.

Iodine and Potash.

Iodine is being produced from seaweed but not economically. It is being produced at a very cheap rate by some of the South American Governments.

The kilns around the coasts of Clare and Galway previously used for burning weed have fallen into decay. The weed is now collected under the supervision of Government Inspectors; it is air-dried and sent to the works at Galway, here it is kiln-dried and ground.

There is a demand for the ground product which is used for inclusion in foodstuffs, medicines and many iodized products.

Up to now some difficulty has been experienced in getting a suitable machine to grind the weed to a sufficient fineness. I understand that this difficulty has been overcome by the production of a suitable machine which will perform the work more efficiently and economically than hitherto. So far this machine has not been installed in any factory in Ireland, but I was promised that particulars of same would be forwarded to me at a later date.

The special type of weed used for the above is taken from the West coast of Ireland. It is found round the other coasts but is of no value there as the weed has to be washed by the waters of the open ocean.

We have in the Falkland Islands large quantities of a similar weed to that found on the West Coast.

It would not pay to export the weed air dried as it contains from 40 to 50% of moisture. Whether it would pay to erect a factory for kiln drying and grinding depends entirely on the chemical value of the weed, the cost of production and the demand for and value of the by-products.

I consider it is worth further investigation.
I suggest that fairly large samples might be collected, air-dried and sent home for analysis; expert advice might be obtained as to a market and prices of the various by-products.
I am informed that a factory to kiln-dry and grind the weed would cost in the Falkland Islands approximately £7,500. This would have to be run by a skilled chemist and competent mechanical engineer.

Data which can be used as a rough guide.

Air-dried weed delivered at a factory in Galway is worth 40/- per ton.
It takes 2 tons of air-dried weed to make 1 ton of kiln-dried.
Therefore 1 ton of kiln dried weed is worth £4.-.-.
Kiln-dried weed contains 4 to 5% moisture.
Air-dried weed contains 40 to 50% moisture.
One ton of ground weed sells today at £18 per ton to English manufacturers.

Carrageen Moss.

This is a valuable weed which is found chiefly on the West Coast of Ireland.
It is collected by the peasants who air-dry it and sell to agents. It is used for numerous purposes, and requires no special preparation.
In its crude form it is being sold to manufacturers of distemper at £30 per ton, and fetches even a higher price when sold as a health food.
For the latter purpose it is put up into packets by the Gelltacht Industries Co, of Beggars Bush, Dublin, and is sold in most of the grocers shops in the Irish Free State.
I have obtained samples of this moss as I am of opinion that there is quite a lot of similar weed

Extract from C.S. of 11/28.

to be found in the Falkland Islands.

Guano.

Artificial manure and many other valuable by-products are being obtained from the above.

The whole of the raw guano being imported into Ireland is coming from the West coast of South America.

The price of the raw material which includes feathers, dead birds and other refuse, is approximately £10 per ton landed in Ireland. The price, of course, varies according to the amount of nitrogen it contains and can be reckoned at £1 per unit of percentage.

I am informed that there is a demand for something like 25,000 tons of raw guano per annum in Ireland.

It is broken down for artificial manure by the inclusion of Clare phosphates, to a proportion of about 3 to 1 of phosphates to raw guano.

This means that there is a potential market in Ireland as it enables the Government to use their raw materials from County Clare.

As far as I am aware the areas in the Falkland Islands which are likely to contain a fair quantity of guano, have not so far been surveyed. One place I have in mind is Cochon Island.

I suggest that it would be worth while making a preliminary survey, and if guano can be found in sufficient quantities and of the right value in nitrates, it might be exported or worked in a small way for use on the land locally.

Here again it will be necessary to forward liberal samples home for analysis.

Woollen factory.

An inspection of this factory showed that there was actually very little wool being used.

Most of the materials were being made outside the Country; this is necessary so as to produce the

(23)

fabrics at an economical price, materials mainly used were shoddy, cotton and artificial wool, which is a product of wood pulp.

To set up a factory on even a small scale entails a big capital outlay, owing chiefly to the numerous complicated machines that are required. It would provide labour mostly for girls and would mean importing a few skilled men and 90% of the materials used. On these grounds it is not a reasonable proposition to consider such an industry for the Falklands.

Ice Factory.

The factory if Galway is working on quite a small scale and has since its inception been working at a loss. It cannot find a sufficient market for its products.

The cold storage section is confined to the storage of a few carcasses only.

As a result of my visit to this factory I am unable to make any recommendations with regard to the Colony.

Tile making.

All houses in the Irish Free State that are being erected under a Government subsidy must be covered with tiles that are manufactured in the Country. There is therefore a big demand for these and they are being produced fairly satisfactorily in Galway. They are made of cement and sand and are heavier than the majority of roofing materials, consequently they require heavier timber construction for support. They are comparatively cheap to produce and in some instances would be suitable for use in the Colony. It would not be possible to produce them for export and very little labour is required to work the machines.

Extracted to C.S.O. 12/28

I am glad to have had the opportunity of inspecting these works if only from an educational point of view.

Producer furnaces.

There is being erected at Athlone a new textile factory costing some £500, 000. Here it was interesting to note that it is proposed to provide steam for running the whole plant from boilers with producer furnaces fired entirely with peat.

These will be the first to be installed in Ireland. On my return journey I took the opportunity of visiting Manchester where I saw several producer furnaces at work. In consequence I am convinced that the only efficient way to burn peat on a large scale is by the producer method.

There are no producer furnaces in the Falklands at the present time, but the above remarks should be noted for any further installations that might be made for raising steam. It means that peat could be used at a much lower cost than coal, thus providing local labour and showing a considerable saving.

Conclusion.

Altogether I feel that the second visit to Ireland has been worth while, for much has been learned. After perusal of the foregoing, I suggest you will agree that the first two things to be investigated are the Carregeen Moss and Guano.

I have the Honour to be,

Sir,

Your obedient servant,

G. Roberts.

Copy.

Downing Street, S.W.1.

23rd August, 1937.

My dear Henniker Heaton,

You told us when you called at the Colonial Office last month that you have been in communication with Roberts regarding his investigations into the possibilities of utilising peat products etc. from the Falkland Islands for industrial purposes, and I am sending you herewith copies of correspondence which has a bearing on the subject.

This correspondence was passed to the Colonial Office by Sir Stephen Tallents, who explained in a covering letter that Commander Hervey-MacLeay is an ex-Naval Officer whom he (Tallents) knew, in the days when he worked in Northern Ireland, as a member of the Ulster Club, married to the daughter of a well-known Ulsterman. He knows nothing about his technical qualifications beyond what the correspondence implies.

You will see that Commander Hervey-MacLeay states that he has had long talks with Roberts and he apparently wants to be asked to call in at the Colonial Office to discuss the various matters to which he refers in his letter. His letters appear very sketchy and nebulous, and at first sight it seems to us doubtful whether there would be any point in our asking him to visit this office at this stage. We should however be glad to have your views upon the correspondence generally and to know whether you think there would be any advantage in inviting the writer to call here.

Yours ever,

(Sgd.) A.J. DAWE.

SIR HENNIKER HEATON, K.C.M.G.

COPY.

35

93 Pembroke Road.

Dublin.

July 25th: '37.

Sir Stephen Tallents K.B.E.

Personal & Private:-

Dear Sir Stephen,

You probably do not remember me from Adam, but perhaps it might recall it to you that you once obtained a very hurried passport for me, from Belfast, when my wife (Lloyd Campbell's daughter) was sick, in France?

I want your advice rather badly, and in view of what you were doing, prior to your present occupation, none would seem to be better qualified.

Just recently, both the Governor and Director of Public Works, of the Falkland Islands, have been in Dublin, mainly on the question of making use of their wonderful natural resources in peat.

I have been on this particular subject for a number of years, in fact the Inst: of Mechanical Engineers have just made me one of their Corporate members, mainly due to this work that I have been doing in conjunction with Professor J. Taylor, of the I.F.S. Industrial Research Council.

I have had long talks with their Director of Public Works, Mr: Roberts, and it seems to be a group of Islands with infinite possibilities; at the moment these seem to me to come under three or four groups:-

1). The use of native fuel in the preparation of blubber etc; thereby saving at least £8000 p.a.

2). The export of this peat fuel (suitably handled) to S. America.

3).

3). The export (canned or frozen) of wild Geese.

4). The export of immense quantities of Guano, which would appear to be just as possible, and probably cheaper, than that imported from Chili.

In addition to this, there appears to be more than a definite opportunity of starting a very paying Iodine factory, and by-products from this for cattle food.

In both the matter of peat and Iodine, I have much more than a passing knowledge, and it would seem that it is about time that these Islands got a really good export market.

I understand that one of the main troubles in all these, is, that they have such a small population, but I am sure that this is a matter which can easily be dealt with; in any case it is not my end of the business.

I have to get in touch with both the Colonial Office about this and also the Falklands Island Company, and it is the latter that I want you to help me with, if you can.

Sorry to trouble you with all this, but I think that it is better to put things clearly, even if a little long winded, rather than only give half of the picture.

You will probably remember little Scott, now Sec: to N.I. Ministry of Commerce? He knows all about the peat part of this, and is more than interested.

When not too busy, you might drop me a line, advising me as to who I should see and in what manner I should tackle it.

All the best, and sorry to trouble you.

Yours sincerely,

(Sd.) D. Hervey-MacLeay
(D. Hervey-MacLeay) A.M.I. Mech.E.
Commander R.N.

COPY.

26th July, 1937.

Dear Hervey-Macleay,

Of course I remember you; but unfortunately I have no similar acquaintance with the Falkland Islands and know nothing at all about the Falkland Island Company.

I am not clear from your letter what part you are thinking of in the show, i.e. whether you are to be employed by the Government or to work a concession with their approval. But in any case I am sure that you will best begin your investigations by getting into touch with the Colonial Office Department concerned, and working onward from that basis.

Yours sincerely,

Commander D. Hervey-Macleay, R.N.,
93, Pembroke Road,
Dublin.

COPY.

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93 PEMBROKE ROAD

DUBLIN.

July 29th: '37.

Sir Stephen Tallents. K.B.E.

Personal.

Dear Sir Stephen,

Many thanks for yours of the 26th:, re Falkland Islands.

I am not after any concession or anything like that; the Governor and Director of Works, have been over here trying to find out if it is possible to develope an industry in peat, of which they have about 3000sq: miles; I have been doing this, very successfully, over here, in conjunction with the Irish Industrial Research Council.

As I was approached by this Director of Works, as a Consultant (in a friendly manner, and not paid), I could not possibly approach the Colonial Office, but would greatly like a chance of being approached by them, asking me to meet them on this matter, as it is one of more than great possibilities, and one which would also be of great interest to S. American producers, many of which are run on British money, and would find themselves in rather an awkward position in time of war, should it be difficult to import British coal.

I do not like bothering you, but if you happen to know anybody, in the Colonial Office, who is interested in this, I would greatly appreciate an opportunity of being calle over to give my opinion of this matter.

Yours sincerely,

(Sd.) D. H. MacLeay.

P.S. In the Islands, themselves, their peat is equal to coal at 7/6d, per ton; whereas they are paying 80/-; landed in S. America, it is worth about 35/- per ton, as against the present price of coal @ 60/- to 70/- per ton; these figures only apply to steam raising plants, using a special apparatus to obtain this result.

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COPY.

3rd August, 1937.

Dear MacLeay,

I will send a word about your interest in the Falkland Islands to a friend at the Colonial Office, and leave it to them to consider whether they should pursue the point.

Yours sincerely,

(Sd.) STEPHEN TALLENTS.

Commander D. Hervey-MacLeay, R.N.,
93, Pembroke Road,
Dublin.

Copy.

The Little Deanery,
Sonning-on-Thames,
Reading, Berks.
24th August 1937.

My dear Dawe,

Many thanks for the copies of correspondence from Commander Hervey-MacLeay on the subject of peat utilization in the Falklands, sent to me in your letter of yesterday.

Can he be informed that the interest he has taken in the matter and the assistance given to Mr. Roberts in his mission is appreciated? And that the F.I. Government will consider in due course whether advantage can be taken of his offer to render service in a development programme.

All I know of the man is that Robets says that he is heating and consulting engineer to several firms and was very helpful.

I note with relief that he does not consider that the solution of the problem of the small population of the Islands is his end of the business.

Yours ever,

(Sgd.) H. HENNIKER HEATON.

(28)

No. 58/37.

(It is requested that, in any reference to this minute, the above Number and the date may be quoted.)

MINUTE.

20th October, 1937.

From THE HONOURABLE THE COLONIAL SECRETARY,

Stanley, Falkland Islands.

To The Hon. G. Roberts, J.P.,

Director of Public Works,

STANLEY.

With reference to your reports dated the 18th and 28th of August, 1937, on the possibility of utilising for industrial purposes peat, kelp &c., I am directed by the Acting Governor to convey to you His Excellency's thanks for these very interesting reports, and to say that letters of thanks are being sent to the persons mentioned by you.

2. I am to add that if the stoves referred to on sheets 10 and 11 of your report dated the 18th of August have not already been ordered, you may issue instructions for the purchase without further reference to this Office.

Acting Colonial Secretary.

(29)

58/37.

29th October, 37.

Sir,

I am directed by the Acting Governor to thank you for the kind considerations and assistance rendered by you to the Honourable G. Roberts, Director of Public Works of this Colony during his visit of investigation in connection with the manufacture of peat briquettes and other industries.

I am,

Sir,

Your obedient servant,

Acting Colonial Secretary.

Commander D. N. MacLeay, A.M.I.M.E.,
93, Pembroke Road,
Dublin,
IRELAND.

(30)

58/37.

29th October, 37.

Sir,

I am directed by the Acting Governor to thank you for the kind considerations and assistance rendered to the Honourable G. Roberts, Director of Public Works of this Colony, during his visit of investigation in connection with the manufacture of peat briquettes and other products of peat, etc. In his letter to Government Mr. Roberts particularly mentions the courtesies extended to him by Mr. McMahon, the Engineer in charge of the works.

I am,

Sir,

Your obedient servant,

Acting Colonial Secretary.

The Director,
Irish Free State
Turf Development Board,
10, Hume Street,
Dublin,
IRELAND.

5212/47A/37.

9 September, 1937.

Dear Commander Hervey-MacLeay

Sir Stephen Tallents referred to this Office some correspondence which you had with him about the development of a peat industry in the Falkland Islands. We passed on a copy of this correspondence to Sir Henniker Heaton, who has asked in reply that an expression of his appreciation might be conveyed to you for the interest which you have taken in the matter and for the assistance which you have given to Mr. Roberts during his investigations.

I am afraid, however, that it is yet too early to say whether a development scheme of this kind can be proceeded with, but the Governor has promised that he will bear your interest in the matter in mind and that he will get into touch with you later should his Government consider that advantage can be taken of your kind offer of assistance.

Yours sincerely

(sgd) J.N. Locker

COMMANDER D. HERVEY-MacLEAY, R.N.

(31)

FALKLAND ISLANDS.

No. 124.

COLONIAL SECRETARY'S OFFICE 20 NOV. 1937 FALKLAND ISLANDS

Downing Street,

22 September, 1937.

Sir,

I have the honour to transmit to you, for your information, the papers noted below on the subject of the development of a peat industry in the Falkland Islands.

I have the honour to be,

Sir,

Your most obedient,
humble servant,

W. ORMSBY GORE.

The Officer Administering
the Government of the Falkland Islands.

Date.	Description.
28 July, 1937.	From Commdr. D. Hervey-MacLeay to Sir Stephen Tallents.
26 July, 1937.	From Sir Stephen Tallents to Comdr. D. Hervey-MacLeay.
29 July, 1937.	From Comdr. D. Hervey-MacLeay to Sir Stephen Tallents.
3 August, 1937.	From Sir Stephen Tallents to Commdr. D. Hervey-MacLeay.
23 August, 1937.	To Sir Henniker Heaton, K.C.M.G.
24 August, 1937.	From Sir Henniker Heaton, K.C.M.G.
9 September, 1937.	To Comdr. D. Hervey-Macleay.

(4)

Uimh. Telephone { 62706 62707

An Bord um Forbairt Móna, Teo.,
(TURF DEVELOPMENT BOARD, LTD.)

10 Sráid Húm,
(10 HUME STREET)

Baile Átha Cliath,
(DUBLIN)

Ar dtag.....

Do tag 58/37.

December 11th, 1937.

- J. Stewart, Esq.,
Acting Colonial Secretary,
Colonial Secretary's Office,
Stanley,
Falkland Islands.

Dear Sir,

Red 30

I am directed to acknowledge receipt of your letter of the 29th October conveying the thanks of your Governor for the assistance which we were able to accord the Hon. G. Roberts, Director of Public Works of Falkland Islands during his visit to this country.

I am to express the hope that Mr.Roberts' visit will prove of benefit to your Colony and I am to assure you that any further assistance which my Board can give will be willingly rendered.

Yours faithfully,

SECRETARY.

DCL/AF.

40

58/37.

7th January, 38.

Sir,

With reference to the minute from this Office No. 58/37 of the 20th October, 1937, regarding your Reports dated respectively the 18th and 28th of August, 1937, on the subject of the possibility of utilising for industrial purposes peat, kelp &c., I am to inform you that the Reports in question have been submitted to the Governor.

2. I am to convey to you the expression of His Excellency's appreciation and thanks for this very valuable contribution towards consideration in the future of the development of minor industries in this Colony.

I am,

Sir,

Your obedient servant,

Colonial Secretary.

The Honourable G. Roberts, M.B.E., J.P.,
Director of Public Works,
STANLEY.

(48)

No. _____

(It is requested that, in any reference to this minute, the above Number and the date may be quoted).

MINUTE.

23rd May 1938.

From Director of Public Works.

Stanley, Falkland Islands.

To The Hon Col Sec.

Submitted for record the attached letter received from the Drogheda Iron Works, regarding Surf burning Rangeo.

It is satisfactory to note that the firm propose making the improvements which I suggested to them.

I will acknowledge letter and thank them.

G. Roberts. 23/5/38.

DROGHEDA IRON WORKS CO., LTD.

ENGINEERS AND IRON FOUNDERS,

Drogheda.

Telegrams: IRONWORKS, Drogheda.
Telephone: DROGHEDA 57.

5th., April, 19 38

MANUFACTURERS OF
SELF-SETTING CONGRESS
RANGES AND TAYLOR TURF
RANGES WITH OR WITHOUT
H.P. COPPER OR WROUGHT
IRON BOILERS,
BURNALL RANGES,
MANTEL REGISTERS,
WATER STORAGE TANKS,
WHEELS,
PLOUGH FITTINGS,
HAY BOGIE FITTINGS,
ROAD MANHOLES,
SURFACE GULLEYS,
SASHWEIGHTS,
ADAMS' TYPE CONICAL-
MANHOLES AND
LAMPHOLE COVERS,
BAR WEIGHTS,
&c.

ENGINEERS',
CONTRACTORS' AND
BUILDERS' CASTINGS
OF
EVERY DESCRIPTION.

G. Roberts Esq.,
Director of Public Works,
Stanley,
Falkland Islands.

Dear Sir,

We thank you for your communication of the 10th., ult., and are pleased to learn that you find the "Taylor" Turf Ranges satisfactory and that they give a better performance on less fuel than Ranges hitherto used.

(2) We are making the hob heavier and in two sections which coincides with your suggestion.

Re Furnace Door. We very much appreciate your suggestion, but as an alternative we are fitting a baffle plate inside this door which will keep it closed by its own weight, and at the same time prevent the handle from becoming excessively hot. We are also fitting a Spring Handle.

We have received an Official Order for Hob and bottom of Range from The Crown Agents, London. We are replacing the Hobs free of charge, but are charging the bottom up as we presume this was broken in transit or by accident.

Regarding the 4 - Ranges you are ordering, the official order has not come through yet, however we presume same will come to hand in due course, when your order will receive our immediate attentior

/continued

DROGHEDA IRON WORKS CO., LTD.

ENGINEERS AND IRON FOUNDERS,

Drogheda.

Telegrams: IRONWORKS, Drogheda.
Telephone: DROGHEDA 57.

MANUFACTURERS OF
SELF-SETTING CONGRESS
RANGES AND TAYLOR TURF
RANGES WITH OR WITHOUT
H.P. COPPER OR WROUGHT
IRON BOILERS,
BURNALL RANGES,
MANTEL REGISTERS,
WATER STORAGE TANKS,
WHEELS,
PLOUGH FITTINGS,
HAY BOGIE FITTINGS,
ROAD MANHOLES,
SURFACE GULLEYS,
SASHWEIGHTS,
ADAMS' TYPE CONICAL-
MANHOLES AND
LAMPHOLE COVERS,
BAR WEIGHTS,
&c.

ENGINEERS',
CONTRACTORS' AND
BUILDERS' CASTINGS
OF
EVERY DESCRIPTION.

continued/

5th., April, 1938

G. Roberts Esq.,

As requested we enclose herewith illustrations of other Ranges we manufacture, which we trust will be interest to you.

36" x 16" O & S Ranges, with lift off firecovers, polished nosing, sheet iron Oven - suitable for Coal burning @... £5. 10. 0. each.

36" x 20" H.P.Congress Ranges with lift off firecover, polished nosing, fitted with sheet iron Oven, suitable for coal.
With H.P.Copper Boiler £7. 5. 0. ea
" W.I.Boiler £6.18.0.ea.
Hand hole for cleaning if required 5.0.ea.

36" x 20" Burnall Range with lift off Fire-Cover, polished nosing, fitted with sheet-iron Oven, with large firebox 15" x 11" x 10", suitable for burning wood blocks or large sods of Turf. The firebox is fitted with a plate to reduce the size of firebox in the event of coal being used. Price @... £5. 17. 6. ea.

You will note the above Ranges, unlike the "Taylor" Range, have no insulation - they have sheet iron Ovens and ovens are 16" x 12" x 14".

/continued

DROGHEDA IRON WORKS CO., LTD.

(145)

ENGINEERS AND IRON FOUNDERS,

Drogheda.

Telegrams: IRONWORKS, Drogheda
Telephone: DROGHEDA 57.

MANUFACTURERS OF
SELF-SETTING CONGRESS
RANGES AND TAYLOR TURF
RANGES WITH OR WITHOUT
H.P. COPPER OR WROUGHT
IRON BOILERS,
BURNALL RANGES,
MANTEL REGISTERS,
WATER STORAGE TANKS,
WHEELS,
PLOUGH FITTINGS,
HAY BOGIE FITTINGS,
ROAD MANHOLES,
SURFACE GULLEYS,
SASHWEIGHTS,
ADAMS' TYPE CONICAL-
MANHOLES AND
LAMPHOLE COVERS,
BAR WEIGHTS,
&c.

ENGINEERS',
CONTRACTORS' AND
BUILDERS' CASTINGS
OF
EVERY DESCRIPTION.

5th., April, 1938

Regarding the Gas Producer Stoves, wehave not done anything with this yet, as there does appear to be a large market for it here, as yet. Any information you could give us regarding the possibility of a market in your Colony would be appreciated.

Thanking you and assuring you of our best attention at all times.

Yours faithfully,
DROGHEDA IRONWORKS CO., LTD.,

G Taylor Manager.

(49)

D. H. MacLeay, A.M.I.Mech.E.
CHARTERED MECHANICAL ENGINEER.

TELEPHONE: DUBLIN 64106.

93 PEMBROKE ROAD,
DUBLIN.

July 12th: '38.

His Excellency
The Governor.
The Falkland Islands.

Your Excellency,

Sir Geo. Clark.Bt:,and I would be grateful to you, if you could inform us as to any development that has,or is likely to take place as a result of our conversations in London,and also to the talks and trips which took place in Ireland,with your Director of Public Works.

What we would request,should the matter be likely to receive consideration,is that samples of the Turf and Kelp be sent to Messrs: John Wolstenholme & Son Ltd: Radcliffe.Lancs.,as suggested,so that we can see the materials that we might be asked to deal with.

My method of handling Turf is going ahead very fast in this Country and many Hospitals,Mental Hospitals and Factories are now generating their steam by this method alone.

With the collaboration of Messrs: Yarrow & Co: Ltd: the well know watertube boiler makers,I have submitted a scheme for a large Turf-Electric generation station,and there is a great possibility that this will go forward,as it is considerably cheaper than a coal station,at Port,being equal to such station with coal at 17/4d,per ton, whereas it is actually over 23/-.

I have the honour to be,
your Excellency,
Your obedient servant,

(D.H.Hervey-MacLeay)
Commander R.N.(Retd:).

(50)

Public Works Department.

Stanley, Falkland Islands.

12th September, 1938.

Sir,

With reference to your letter of the 5th of April, 1938, addressed to G, Roberts. Esq, with illustrations of ranges attached, I will be glad if you will supply 100 illustrated leaflets of The "Taylor" Turf Range, for circulation in this Colony.

2. The price of ranges with and without "U" boilers should be quoted.

I am,

Sir,

Your obedient servant.

DUPLICATE.

Officer-in-charge.
Public Works Dept.

The Manager,
Drogheda Iron Works Co, Ltd.

Drogheda.

Eire.

ABBey 1200.
Telephone:—VIC 8740.

(5)

COLONIAL EMPIRE MARKETING BOARD

Communications should be addressed to the SECRETARY, and the following number quoted:— 545/38.

2, Sanctuary Buildings,
18, Great Smith Street, S.W.1.

15th November, 1938.

Dear Sir,

The Colonial Empire Marketing Board has been requested to investigate the possibilities of obtaining from Colonial sources a seaweed which can be used as a substitute for the Japanese weed (chiefly Gelidium) from which agar-agar is manufactured.

Agar-agar is a preparation of seaweed which is extensively used as a thickener in jellies, soups etc.; also in the sizing of textiles and in laboratories as a culture medium for bacteria. Extensive experiments have been carried out in this connection in the hope of finding a suitable substitute for this weed to replace it in the event of further supplies being unobtainable, but without success.

It has been suggested that such a weed may be grown locally in your Colony, and I have accordingly been requested to communicate with you on the subject. If you will therefore kindly pass this letter to the Department concerned, and send the Board a reply at your early convenience, I shall be grateful.

Yours faithfully,

J. W. Hampson

Secretary
Food Products Sub-Committee.

The Colonial Secretary,

FALKLAND ISLANDS.

GOVERNMENT HOUSE,

FALKLAND ISLANDS. STANLEY.

17th January, 1939.

Dear Commander MacLeay,

I have to express my regret that by a series of mischances no communications appear to have been sent to you on the subject of the development of bye-industries in this Colony in which Sir George Clerk and yourself were interested in 1937.

My recollection is that I expressed both to Sir George Clerk and yourself my conviction that unless or until a representative of any persons likely to be interested in development visited the Colony no advance was probable. The reason is that periodically for the last forty years questions of development, particularly in the direction of a peat industry, have been raised and a mass of correspondence has accumulated. It has not lain within the financial

resources/

COMMANDER D. HERVEY-MACLEAY, R.N.,
93, PEMBROKE ROAD,
DUBLIN,
IRELAND.

resources of the Government to proceed further and it was not possible to invite investors to venture capital on a speculative industry. Peat has a bad record in this connection.

Mr. Roberts resigned from the Government service in the course of last year by reason of ill health and he retired to England. He formed a view very unfavourable to the prospect of the commercial utilization of local peat owing to high labour costs and freight charges.

Experiments with the "Taylor" turf range proved eminently satisfactory and it is probable that they will find a ready market.

Samples of kelp are being sent to Messrs: John Wolstenholme and also to the Empire Marketing Board as a possible substitute for agar-agar.

It would be convenient if writing further if you would address the Colonial Secretary.

I am glad to hear of the rapid progress your method of handling turf is making and trust

that/

that your large scheme for a Turf-Electric generation station is going forward well.

With best wishes to Sir George Clerk and yourself,

I am,

Yours sincerely,

(Sgd.) H. HENNIKER-HEATON

(53)

CIRCULAR

CONFIDENTIAL

Downing Street,

12th January, 1939.

Sir,

Read

I have the honour to refer to Mr. J. H. Thomas's confidential circular despatch of the 30th April, 1936, regarding the procedure to be adopted in connection with applications from Colonial Governments for assistance from the Carnegie Corporation of New York.

2. I understand that Dr. Keppel will probably be paying a further visit to this country in the spring or early summer of this year, and I hope to be able to take the opportunity of placing before him then a further list of schemes for assistance from the funds of the Corporation. I have to request, therefore, that (if you have not already done so) you will furnish me with full particulars, including estimates of the total cost and of the assistance desired from the Corporation, in respect of any schemes for the prosecution of which assistance is desired from the Trustees. This information should be sent to me as soon as possible and in any event should reach me not later than the 31st March next. In this connection, I would invite attention to paragraph 6 of the circular despatch under reference, in which was indicated the type of educational and cultural interests which are likely to commend themselves to the Trustees.

The Officer Administering

the Government of

3. I have already received particulars of a number of schemes in respect of which assistance is desired but have had to ask for further information in connection with them. It will no doubt be noted that such further information should be communicated to me not later than the 31st March next.

I have the honour to be,

Sir,

Your most obedient, humble servant,

Malcolm MacDonald

(56)

D. H. MacLeay, A.M.I.MECH.E.
CHARTERED MECHANICAL ENGINEER.

TELEPHONE: DUBLIN 64106.

Change of address to:- 19 Elgin Road.Ballsbridge.Dublin.
~~93 PEMBROKE ROAD.~~
DUBLIN.

March 9th:'39.

Colonial Secretary.
Port Stanley.
Falkland Islands.

COLONIAL SECRETARY'S OFFICE
19 APR. 39
FALKLAND ISLANDS

55/37.

Reads 52-54

Dear Sir,

Would you please convey my thanks to His Excellency for his long letter to me,in which he invites me to address further communications to your Office.

As a matter of passing interest,the Sir Geo: Clark to whom he refs: is one of those spelt as above,and is one of the Clark,Coates,Clark crowd;the well known cotton thread spinners,of Paisley.

I am very sorry to hear of the illness of Mr: Roberts,and would like to have his address. Falklands, Hill Halden Ashford Kent

I note that samples of Kelp are being sent to John Wolsten-holme,from whom I will obtain them;in this connection I am most anxious to know if Mr: Roberts mentioned that the most valuable of these,was a small whitish kelp,samples of which we gave him in the Galway district;it is called Carrigeen;it is this that I am really anxious to obtain a sample of.

I am sorry to learn that Mr: Roberts sent in an adverse report on Peat;he had promised me a sample of that as well,and I would respectfully point out,that until we receive a good sized sample,packed in an air tight tin,it is not at all likely that anyone will make the expensive journey to Port Stanley.

It may interest His Excellency to know that we are handling the boiler plant of a well known Yorkshire firm,at their Irish factory with great success;the firm is Sir Titus Salt Ltd: using Peat as the fuel.

I am afraid that we shall not even be given an opportunity to quote for the new Turf-Electric Station,as the Electricity Supply Board deal almost exclusively with Germany for everything.

Yours faithfully,

D. H. MacLeay

For Agricultural file

61, Gracechurch Street,

LONDON, E.C.3., 14th April, 1939.

(59)

Dear Governor,

I enclose copy of a memorandum written after a conversation I had with the Managing Director of Peco Ltd.

If you consider it is worth the Colony's while to go into the matter, I shall be pleased to assist in any way I can.

I do not think the F.I. Company would be directly interested but if a market could be found (I have in mind Uruguay - peat briquettes to compete with coal as a household fuel) we would co-operate with low freights.

There would only be a limited local sale to such persons who buy their fuel and perhaps to certain farms.

The generation of electricity might be altered from internal conbustion engines to steam.

Other outlets might be found but there is no doubt that the whole idea turns on the possibility of export.

I have sent some Irish briquettes to the Office and instructed them to send you samples. I have also suggested to Roberts that he has a talk with Wilson's in Montevideo - they import and sell both steam and household coal.

Yours sincerely,

His Excellency
Sir H. Henniker Heaton, K.C.M.G.,
Government House,
Falkland Islands.

See 4H

"PECO" PEAT BRIQUETTING PROCESS.

This process is worked under licence from Peco Limited, 47, Victoria Street, S.W. It appears to have proved itself and there are plants now operating the process in -

Denmark, near Esbjerg, Capacity 25,000 tons per annum.
Ireland " 50,000 " " "
Esthonia " 100,000 " " "

There is also a plant near Dumfries which will possibly be brought into production shortly. It is understood that the German Government is also investigating the process with a view to putting up a large plant.

I recently called on Mr. Nils Testrup, the Managing Director, to discuss with him the possibilities of its practicability for the Falkland Islands. He informed me that about 1911 the then Governor of the Falkland Islands (Sir W. Allardyce) gave his syndicate a monopoly for exploitation of the Falkland Islands peat/banks for 5 years but for several reasons they were unable to do anything. He then showed me samples of briquettes made in the several plants operating. I have since purchased a quantity of Irish peat briquettes, sent some to the Falkland Islands and burned some. It makes a good fuel for an open grate, burns slowly, gives an intense heat and is all reduced to fine ash. The only criticism against burning it in an open fire appears to be the fine light ash resulting - peat using countries are, of course, accustomed to this.

The process is - peat is harvested during the summer months by specially constructed harvesters which lay the sods so as to assist their rapid drying. Sufficient is harvested to keep the factory fully occupied for the 12 months - working up to 3 shifts daily. The air dried peat is then run into the factory where it is dried again, reduced to a powder and then compressed under great pressure.

Mr. Testrup had previously written -

"There seems no doubt that Briquettes and/or Electric Current "can be produced from peat deposits in the Falkland Isla[illegible] "for the purpose of determining the annual [illegible]

(57)

"would be desirable to have statistical observations for not "less than 10 years and if figures are obtainable over such a "period it would also be of great help if the observations gave "figures for every day, the same as they do in other countries. "The more material you can place before us the more accurately "would we be able to advise you."

He also states that he would like to have a few small samples of Falkland Islands peat taken at regular intervals from the top to the bottom of a peat bank, also giving the depth of the bank from which it is taken.

With these particulars before him, he would go into the matter further.

A factory would have to be placed near banks which would have a life of about 30 years estimating for a production of 25,000 tons briquetted peat per annum.

It is estimated that the water content of peat in bog is 80 - 96% and after air drying 30 - 60%; on this basis I assume that 1 ton briquettes = about 8⅓ wet peat in bog. A peat bank estimated to have about 6,250,000 tons wet peat in bog would have to be found for the factory site.

I understand there may be records re suitable banks in the Falklands. Mr. Testrup recollected one of about 9 million tons having been mentioned, also one a little smaller.

A plant to produce 25,000 tons per annum would probably cost £40,000/£60,000. Babcock & Wilcox have erected a plant and would quote - guaranteeing output and efficiency.

A plant of this size would employ about 30 men harvesting peat for 5 - 6 months each year. The factory would employ about 35 men all the year round working shifts.

The all-in production costs per ton working to capacity should not be more than 10/- per ton briquettes.

see 73 & 74

London, 14th April, 1939.

(60)

Copy.

GOVERNMENT HOUSE,
FALKLAND ISLANDS.

May 31st 1939.

Dear Mr Young,

Many thanks for the memorandum on the peat briquetting process sent under cover of your letter of the 14th of April.

You will have seen by C. Roberts' repor of the results of the 1937 investigations why we do not consider it feasible to take up the scheme. Ireland with huge peat bogs, a large market at her door and labour at 7d an hour has had a struggle to establish the industry.

I hope to be able to prepare this winter a general memorandum on potential bye-industries.

Yours sincerely,

(Sgd.) H. HENNIKER-HEATON

See 74

(61)

58/37.

1st June, 39.

Sir,

I am directed to acknowledge the receipt of your letter of the 9th of March, 1939, and to inform you that Mr. Roberts' address is

Falklands,
High Halden,
Ashford,
KENT.

2. With regard to the kelp known as Carrigeen I am to say that searches have failed to find that type of kelp here.

3. I am to add that samples of peat will be sent to you in due course apart from the samples of peat and kelp which you requested should be sent to Messrs: John Wolstenholme and Son, Ltd.

I am,

Sir,

Your obedient servant,

Colonial Secretary.

Commander D. H. MacLeay, R.N., A.M.I.Mech.E.,
19, Elgin Road,
Ballsbridge,
DUBLIN.

(62)

Royal Mail Lines, Limited.

On Board
The Royal Mail Liner
"Almanzora."
June 2nd 1939

Dear Governor,

This looks like being a good journey, especially as there are a few people from B. aires whom I know. We are due at Santos to-day, and the weather at last is becoming pleasantly warm & sunny.

I made inquiries at Montevideo about sand, and I learn that it contains too much iron for their purpose, so at the moment there is no prospect of any shipment.

I saw Messrs Wilson & G. at Montevideo regarding the sample of peat-briquettes which I brought with me. They appear quite interested and ask for a sample about 5 tons say 100 bags of our ordinary commercial peat - for experimental purposes. They want to experiment

Dressing it themselves - both in the pure-dried state - and also mixed with fine coal dust. May I suggest that the Government supply this peat at our Jetty - and "Lafonia" will carry it to Montevideo - free of freight and charges. It should be bagged in the ordinary dried "sods" - not broken.

With reference to the information you asked for about Sand, I am sending Mr Creamer a reminder in case he has not yet passed on such information as we possess.

I am enclosing the films & prints which were taken at Govt. House. Two I am suppressing! Please tell Bunney she may have these on my return.

I am not at all happy about the news these days. We seem to be living on the edge - from day to day - not knowing what will happen the next.

The "Andes" I learn will be a full ship in September.

Kind regards
Yours sincerely D.W. Roberts

Telephone:—ABBEY 1200.

(63)

COLONIAL EMPIRE MARKETING BOARD

Communications should be addressed to the SECRETARY, and the following number quoted:—

545/39.

2, Sanctuary Buildings,
18, Great Smith Street, S.W.1.

22nd May, 1939.

58/37.

Sir,

Read (51)

I am directed by the Board to refer to the letter from this Office No. 545/38 of the 15th November, 1938, regarding the possibility of obtaining in the Falkland Islands seaweeds suitable for the production of agar-agar, and to enquire whether you are yet in a position to furnish a reply.

Yours faithfully,

Secretary.
(H.C.H.Bull.)

The Colonial Secretary,
FALKLAND ISLANDS.

(64)

58/37.

8th August, 39.

Sir,

With reference to our recent conversation regarding samples of peat required by Messrs Wilson & Co., Montevideo, I have the honour to inform you that as arranged 100 bags of peat have been delivered at your jetty for shipment to Messrs Wilson.

2. The description of the samples is as follows :-

33 bags marked No. 1, cut from depth of 6' in diddle-dee bank

33 bags marked No. 2, cut from depth of 3' in grassland bank.

34 bags cut from depth of 1' 6" to 2' in grassland bank.

I am,

Sir,

Your obedient servant,

Colonial Secretary.

The Manager,
Falkland Islands Co., Ltd.,
STANLEY.

(65.

58/37.

19th August, 39.

Sir,

With reference to your letters Nos. 545/38 and 545/39 of the 15th of November, 1938, and 22nd of May, 1939, respectively, I am directed to inform you that so far as this Government has been able to ascertain, seaweeds suitable for the production of agar-agar are not obtainable in the Falkland Islands.

Reads 51 & 63.

I am,

Sir,

Your obedient servant,

Colonial Secretary.

The Secretary,
Empire Marketing Board,
2, Sanctuary Buildings,
18, Great Smith Street,
LONDON, S.W. 1.

(67)

J. H. MacLeay, A.M.I.Mech.E.
CHARTERED MECHANICAL ENGINEER.

TELEPHONE: DUBLIN 64106

19 ELGIN ROAD,
BALLSBRIDGE,
DUBLIN.

Colonial Secretary.
Falkland Island.
Stanley.

July 12th:'39.

Sir,

I beg to thank you for your 58/37, of June Ist:, as also for the information contained therein.

I note that samples of Peat are being sent to me, c/o Messrs: Wolstenholme, and for these I will be extremely grateful; I would be more than obliged if at least one sample could be packed as follows:-

Take several representative sods, cut them through with an ordinary saw, place the resultant saw dust of several sods into an air tight tin and seal it; I require this to get at the average moisture content; it is quite possible that some of the Doctors might be able to arrive at this without so bothering you?

I thank you for the address of Mr: Roberts; I have written to him and hope to obtain some further information which I require, as I am still rather in the dark as to why I have heard nothing at all about the Guano question, which was the matter on which both Sir Geo: Clark and I saw his Excellency in London.

When I say this, I fully realise that an export of Peat, or eve its exclusive use during Sealing operations, is one of probably a great deal more urgent importance to you, and in this respect it may be of interest to you to learn that we have just completed our own trials on a plant for sectional boilers and small steam boilers of from say 500,000 B.T.Us' up to steam boilers of ssy 2500 Lbs:/stH/hr:, from and at 212degs:F; these trials have been even more of a success than we had anticipated, and were carried out on a Local Govt: Board plant, at a Mental Hospital; this plant will not burn anything else but Peat, but is only about half the prime cost of the ordinary Producer Furnace and should save its cost within the first Year.

July 12th: Cont:

Please excuse me for such a long letter, but it take so long to get a letter through that it seems well to cover as many points as possible in the same letter.

As soon as I have some more facts from Mr: Roberts(being only his private opinion) I am seriously thinking of getting into touch with the River Plate section of the Institute of Mechanical Engineers, which Branch controls S.America, as I feel sure that they would welcome the thought that it might be possible, in the case of a major war, to be able to even consider the possibilit-ies of obtaining any alternative fuel to British coal which could be burned in the same furnace as coal in times of peace.

Again thanking you for your communication.

I have the homour to be,
Sir,
your obedient servant.

D.M. MacLeay

(D.M.Hervey-MacLeay).
Commander R.N.

(68)

Reference No.C.S. 58/1937

Colonial Secretary's Office,
Stanley, Falkland Islands,
November 8th 1939.

Sir,

With reference to your letter of the 12th of July, 1939, and to previous correspondence, I am directed to inform you that the Agricultural Adviser has reported that he has this day forwarded the undermentioned samples:-

Red 67.

One box containing 11 lbs of Kelp to Messrs. Wolstenholme and Co.

One box containing peat to the same firm.

Two boxes, one containing Kelp and the other peat have been sent to you.

Each box of peat contains four samples as under:-

No. 1. Top sod.
2. 2 feet down.
3. 4 feet down.
4. 6 feet down.

2. Perhaps you will be good enough to advise Messrs. Wolstenholme and Co.

I am,
Sir,
Your obedient servant.

Colonial Secretary.

COMMANDER D. HERVEY-MacLEAY, R.N.
19 ELGIN ROAD,
BALLSBRIDGE.
DUBLIN.

(69.)

12th March 1940.

Commander D.M. Harvey-MacLeay, R.N.,
C/o The Ulster Club,
Castle Junction,
BELFAST.

Dear Sir,

We have now received analyses of the samples of turf received from the Falkland Islands and report as under:-

Four samples of turf were received taken from different depths in the bog viz - from the top sod, from 2 feet down, from 4 feet down, and from 6 feet down respectively. A proximate analysis was taken of each sample together with the gross calorific value of each sample. An ultimate analysis was taken only of the sample from 4 feet down in the bog as it was felt that this would give sufficient information. All these analyses were made according to the methods laid down in British Standard Specification No.420 dated 1931, the calorific values being determined by the Mahler-Donkin Oxygen Bomb Calorimeter.

The proximate analyses of the various samples as received were as follows:-

TABLE ONE.

		Top sod.	2 ft. down.	4 ft. down.	6 ft. down.
Ash	%	7.20	7.34	3.76	3.82
Total Moisture	%	11.85	11.72	12.33	12.53
Volatile Matter less moisture.	%	58.10	56.75	55.42	54.90
Fixed Carbon.	%	22.85	24.19	28.47	28.75
Gross Calorific Value. B.Th.U/lb.		7.915	7,940	8,291	8,242.

Commander D.M. Harvey-MacLeay, R.N.M 12/3/40.

The proximate analyses and gross calorific values of the "as dried" samples (i.e. when all moisture has been driven off) were as follow:-

TABLE TWO.

		Top Sod	2ft. down	4 ft. down.	6 ft.down.
Ash.	%	8.17	8.31	4.31	4.37
Volatile Matter	%	65.91	64.29	63.21	62.98
Fixed Carbon.	%	25.92	27.40	32.48	32.65
Gross Calorific Value.	B.Th.U/lb.	8,979	8,995	9,457	9,423

The Ultimate analyses of the "as dried" sample from 4'-9" down was as follows:-

Carbon	57.19%
Hydrogen	5.60%
Sulphur	1.20%
Oxygen & Nitrogen.	31.62%
Ash.	4.31%

We understand that similar samples have been submitted for analysis by the Department of Industry and Commerce of the Government of Eire and we give their figures below for comparison.

Their figures for the proximate analyses and gross calorific values of the samples in the "as received" state are as follows:-

TABLE THREE.

		Top Sod	2ft. down	4ft. down	6ft. down.
Ash.	%	7.69	7.52	3.67	3.65
Total Moisture	%	12.96	12.76	12.39	13.31
Volatile Matter less moisture	%	55.01	56.43	55.26	56.06
Fixed Carbon.	%	24.34	23.29	28.18	26.98
Gross Calorific value.	B.Th.U/lb	7,916	8,275	8,694	8,222
Sulphur		0.53	0.71	1.24	1.09

A better comparison can be obtained from these figures reduced to the moisture-free condition which will then compare directly with Table Two. They will be as follows:-

TABLE FOUR.

		Top sod.	2ft. down.	4 ft. down	6ft. down.
Ash.	%	8.83	8.60	4.21	4.21
Volatile matter	%	63.21	64.08	63.44	64.68
Fixed Carbon	%	27.96	27.32	32.35	31.11
Gross calorific value.	B.Th.U/Lb.	9,074	9,486	9,982	9,484
Sulphur.	%	0.65	0.82	1.42	1.26

For comparison also we give below the proximate analyses of several samples of Irish turf in the moisture-free condition which have been taken at various times in connection with various tests we have carried out and which will compare directly with Tables Two and Four. They are as follow:-

TABLE FIVE.

		Machine Won.	Machine Won.	Hand. Won	Hand. Won	Hand Won.
Ash.	%	2.74	3.09	6.56	7.83	4.90
Volatile matter less moisture	%	64.91	65.28	62.17	61.85	64.50
Fixed Carbon	%	32.35	31.63	31.27	31,32	30.60
Gross Calorific Value	B.Th.U/lb.	9,602	8,945	9,387	9,420	9,392

We also give, for comparision the ultimate analyses of several samples of Irish turf in the moisture free condition which will compare directly with the ultimate analysis of the Falkland Islands Turf previously given. They are as follow:-

TABLE SIX.

		Machine Won.	Machine Won.	Machine Won	Machine Won	Hand Won	Hand Won	Hand. Won.
Carbon.	%	57.98	53.86	57.48	57.69	55.52	56.54	53.76
Hydrogen.	%	5.86	5.02	5.55	4.90	5.78	5.69	5.00
Sulphur.	%	0.33	0.42	0.53	0.49	0.26	0.55	1.19

Commander D.M. Hervey-MacLeay, R.N., 12/3/40.

TABLE SIX (CONT).

	Machine. Won	Machine Won	Machine Won	Machine Won	Hand Won	Hand Won	Hand. Won.
Oxygen & Nitrogen. %	33.09	38.10	32.13	32.33	36.63	32.32	34.88
Ash. %	2.74	2.60	4.31	4.59	1.81	4.90	5.17
Gross Calorific Value B.Th.U/lb.	9,602	9,592	9,590	9,640	9,300	9,392	9,254.

From these figures it will be seen that the analyses, both proximate and ultimate, of the Falkland Islands Turf are very similar to those of Irish turf except in the following details viz:-

(1) The Ash content of the Falkland Islands turf is, generally speaking and particularly in the upper layers, higher than that of Irish turf.

(2) The Sulphur content of Falkland Islands turf is also higher than that of Irish turf.

(3) The gross calorific value of Falkland Islands turf is in the moisture free condition, generally speaking, slightly lower than that of Irish turf probably due to the higher ash content of the former.

(4) The moisture content of the samples of Falkland Islands turf is far below anything we have experienced with Irish turf even of the machine won variety. In fact it compares very favourably with briquetted Irish turf.

(5) The samples received from the Falkland Islands turf show it to be much denser than Irish won turf of the hand-won variety and rather more dense than Irish turf of the machine won variety.

The effect of these variations will probably be as follows:-

(1) We do not expect that the higher ash content per se. will be of any great moment. It will, of course, mean the removal of ash at more frequent intervals than is necessary with Irish turf when extraordinarily long intervals can be taken between ashing periods. We should expect that, with an ash content similar to that from the lower layers, removal of ash at intervals of 24 hours actual running will be quite satisfactory. It should, moreover, be pointed out that even with the top layers the ash content is

(1) well below that of coke with which no trouble is experienced. As shewn in the analyses given previously we have experienced an Irish turf with 7.83% ash and actually ran prolonged tests with this turf without any difficulty. A careful examination of the ash from the Falkland Islands turf shews it to be varying from pink in the top layer through fawn to light brown in the lower layers. The ash will be of a fairly highly refractory character and should not cause any trouble through clinkering at ordinary furnace temperatures.

(2) The sulphur content is variable and most of the sulphur is in the "free" condition and will therefore be burnt during combustion and not pass into the ash. While it is certainly high for a turf, it is equally certainly lower than many cokes or even coals and will not cause any trouble providing the chimney temperature is not reduced, below dew-point when it may cause corrosion to a steel chimney.

(3) The lower calorific value of the Falkland Islands turf calls for no special comment as it is only very slightly below that of Irish turf and is negligible when the lower moisture content is taken into consideration.

(4) The low moisture content is, of course, of paramount importance as it necessarily implies a higher calorific value of the turf as fired. The samples we received had been intransit for some time and it may well be that the moisture content had been reduced slightly between the time when it left the Falkland Islands and the time the analyses were made. It would, however, appear certain that climate conditions in the Falkland Islands are such as to allow the turf to be air dried to a far lower moisture content than is possible, even under the best conditions, in Ireland. We may mention that our experience has been that even when Irish turf is stored under cover for twelve months it is almost impossible to reduce its moisture content below 20% without the application of extraneous heat. Allowing for some loss of moisture on the samples during transit and basing upon a moisture content of the turf as available in the Falkland Islands of 15% the gross calorific value would be about 7,300 B.Th. U's per lb. compared with an average of about

(4) 13,500 B.Th.U's per lb for a really good Steam coal and an average of about 12,000 B.Th.U's per lb for good coke. On this basis, assuming equal thermal efficiency in the combustion of turf, coal, and coke, a ton of turf would replace about 11/2 cwts of good steam coal or about 13 cwts of good coke. We think we have given ample demonstration for prolonged tests with Irish turf that we can obtain an overall thermal efficiency of at least 70% on gross calorific value on a well designed boiler plant and we are quite certain that such an efficiency can only be equalled and hardly exceeded on the most modern plants burning coal or coke. To ensure fuel economy it would therefore be necessary that the price of a ton of turf should not exceed that of 11/2 cwts of good steam coal or of 13 cwts of good coke.

(5) The physical condition of the turf samples would show it to be more suitable for our method of combustion than Irish turf. In addition its greater density and its lower moisture content would mean that the space required for storage would be greatly reduced.

To summarise our own views we are quite confident that there will be no difficulty in the economical raising of steam from this turf and we are equally confident that real fuel economy can be obtained by burning this turf instead of coal or coke providing the turf can be supplied at the comparative price previously given. We are quite anxious and willing to do anything we can to demonstrate the possibilities of this turf and, although it is difficult under present conditions to see how this can be done, we would gladly undertake to arrange for aprolonged test on a suitable installation in this country or in Ireland from which actual figures could be obtained to justify (or otherwise) our optimism. This would, of course, necessitate a good supply of turf being sent to this country for test. We are, however, willing to agree to any reasonable suggestions as to what assistance we can give.

Yours faithfully,
FOR MOLESTON GAS PRODUCERS (MANCHESTER) LTD.,

Managing Director.

(Copy attached to letter, ref: I.R.C. 51/3 Feb:24th:1940, from Secretary Industrial Research Council. 45 St: Stephen's Green. Dublin.)

Lab. No.	Portion of Bog.	Condition of sample	Moisture %	Ash %	Volatile matter	Fixed Carbon	Calorific value Br. Th. U. per lb	Sulphur %
14	Topsod	1	12.96	7.69	55.01	24.34	7916	0.53
		2		8.83	63.21	27.96	9074	0.65
15	2 feet down	1	12.76	7.52	56.45	23.29	8275	0.71
		2		8.60	64.08	27.32	9486	0.82
16	4 feet down	1	12.89	3.67	55.26	28.18	8694	1.24
				4.21	63.44	32.35	9982	1.42
17	6 feet down	1	13.31	3.65	56.06	26.98	8222	1.09
		2		4.21	64.68	31.11	9484	1.26

70.

58/37

(41.)

H.M.S. "Caroline,"
c/o G.P.O.,
LONDON.

16th March, 1940.

The Colonial Secretary,
Stanley,
FALKLAND ISLANDS.

Sir:

Red 61-68

I have to thank you for your two letters dated 1st June and 8th November last. The former arrived the day I was called up for Service, and I am sure you will understand that I was far too busy to answer it.

The samples of Peat and Kelp duly arrived, and I regret to say that I have not yet received any reports on the latter, but the reports on the former are most interesting, copies of which I enclose.

You will note that whilst one of these reports was carried out by the analyst to whom I am accustomed to sending similar samples, the other was carried out by the Industrial Research Council, in Dublin.

These reports do not appear to quite agree with the conclusions reached in your Memorandum on Potential Minor Industries, and it would appear that it is still worth considering the possibility of utilising this fuel for at least such purposes as the steam raising which is required in the Sealing industry.

Trusting this will be of interest to you, and perhaps the matter could be re-opened after the conclusion of the War.

I am,
Sir,
Your obedient Servant.

Commander, R.N.

A.M.I.MECH.E.

MC/MT.
Encl.

No. 6/2/7.

(It is requested that, in any reference to this minute the above Number and the date may be quoted.)

MINUTE.

72

25th. August, 1945.

From The Director of Agriculture

Stanley, Falkland Islands.

To The Honourable,

The Colonial Secretary,

Stanley.

In looking through the Bulletins of the Imperial Institute for articles on seaweeds I came across one on wax extracted from peat which might be of value locally. A precis is enclosed hereunder.

COLONIAL SECRETARY'S OFFICE
27 AUG 1945
FALKLAND ISLANDS

Director of Agriculture.

aec/jgg

(72a)

Peat Wax from the Chatan Islands, New Zealand.

Bull. Imp. Inst. Vol. 41 pp 157 - 162. 1943.

Peat was extracted from peat by wax works benzol represented about 10% of the air dried weight of the peat. The sample weighed 9 ozs. and consisted of a block 9" x 9" x 1¼" of very dark brown brittle wax, which was translicent in thin layers and took on a good polish when rubbed. Grinding gave strong smell of benzene.

	Sample of	Chetan Is. Wax.	Montan Wax*
	Loss at 100°C water	3.2	-
A	Matter insol in boiling alcohol	42.4	-
	a1: and insol in petrol 80-100°C Bl.	21.8	C.as 10.0
	a2: and sol in petrol 80-100°C Bl.	20.6	-
B	Matter sol in boiling alcohol	54.4	-
	b1: consisting of matter sol in boiling alcohol but insol in cold alcohol.	37.1	-
	b2: Matter sol in both cold and boiling alcohol.	17. 3	-
	X Matter sol in petrol (bp.80-100°C)	74.0	-
	Y Matter insol in benzene	0.3	less than 0.5
	Z Matter sol in cold ether.	21.9	15-20
	Ash	0.4	less than 0.5
	Acid Value	33.3	20-40
	Saponification Value	129.8	50-90
	Melting point°C (open tube method)	69.0	Ca 80°C
	S.p. Gn.	1.033	Ca 1.0

Fraction A. MP 255 C approx. equal parts of asphaltie matter and matter sol in petrol.

Fraction a1 That part of Anisol in petrol MP not below 360 C no sign that melts at higher temperatures. Ash content 2.3%.

Fraction a2 That part of A which is soluble in petrol hard waxy nature MP 83 C.

Fraction b1 Sol in boiling alcohol but insol in cold alcohol Hard waxy nature similar to a2. Acids secured by sapoinfication anf removal of unsaponifable matter M.P. 71-72 C. Neutralization value 133.9.

Fraction b2 Soluble in boiling and cold alcohol not so brittle as b1. Negative to Storch-Liebermann list for rosin (Moravsky) MP 60 C.

Fraction X Portion of original was sol in petrol M.P. 71 C very brittle.

Fraction Z Portion of original was sol in cold ether M.P. 63 C brittle.

	a1 not below	a2	b1	b2	Present sample.	1926 sample.
Melting Point.	36	83	71.5	5.4	69	70 - 74
Acid Value	6.1	26.3	51.4	65.9	33.3	55.0
Saponification Value	151.8	107.6	114.8	128.6	128.9	120

* Montan Wax varies according to differences and extraction methods, to the H20 content of the liquite used, to the Solvents, pressure temperature size of coal and bitumen content of the coal.

(726)

Peat wax can be separated on to 4 fractions.

a1	Asphaltic,	21.8 %
a2	Waxy, insol in hot alcohol but sol in petrol 20-6 %	
b1	Waxy, sol in hot alcohol insol in cold alcohol 37-1 %	
b2	Resinous, sol in both hot and cold alcohol 17.3 %	
	Total	96.8 pts.

X is mixture of a2, b1 and b2.
Z is very similar to b2.

Aspheltic because of similarily in appearance of physical properties, but is not asphalt simers possesses saponification value.

P. 160-162 given a comparison of the peat wax does not form a thin and mobile liquid as does Montan wax but rather a heavy liquid and thread spinning mass. Melted peat wax and paraffin wax can be mixed only with difficulty, Monran wax and paraffin was mixed in all propartions easily.

Suggests:- Benefincial reduction in asphaltic preportion of peat wax may be achieved by varying methods of extraction, variations of methods of cutting and drying peat etc. and it would be advisable to try method of drying peat to different stages and treating eith different solvents under different conditions.

The high ashpaltic content is detrimental and on removal has little or no value, resinous fraction could be used in colophony and the wax fractions for boot polishes. In some ways refunded and bleached peat wax may surpass Montan Wax.

(74)

16th August, 1946.

Dear Mr. Roberts,

Red 73 I am much obliged to you for sending me a copy of Mr. Young's note on the "Peco" Peat Briquetting process. I had not seen it before and I have read it with interest.

Red 58 Red 59 Red 60 But I find that we already have a copy of the note, which was sent to Sir Herbert Henniker-Heaton under cover of Mr. Young's letter of the 14th of April, 1939. The Governor replied in his letter of the 31st of May, 1939, and I am sending you copies of each of these letters, together with your copy of the note.

I am also taking the opportunity to return to you the booklet on "Possibilities for the Commercial Utilization of Peat" which you kindly lent me. But I have come to the reluctant conclusion, in the absence of further evidence, that the NUB of the matter is in paragraph 2 of Sir Herbert Henniker-Heaton's letter - we have scattered and not level bogs; no large market at our door; transport difficulties; and labour paid at twice the Irish rate before the war

Red 60

Yours sincerely,

(Sgd.) A. B. MATHEWS

The Hon. D. W. Roberts, C.B.E., J.P.,
Stanley, Falkland Islands.

WH.

COPY.

(73)

"PECO" PEAT BRIQUETTING PROCESS.

This process is worked under licence from Peco Limited, 47, Victoria Street, S.W. It appears to have proved itself and there are plants now operating the process in -

Denmark, near Ecbjerg,	Capacity	25,000	tons	per annum.
Ireland	"	50,000	"	" "
Esthonia	"	100,000	"	" "

There is also a plant near Dumfries which will possibly be brought into production shortly. It is understood that the German Government is also investigating the process with a view to putting up a large plant.

I recently called on Mr. Nils Testrup, the Managing Director, to discuss with him the possibilities of its practicability for the Falkland Islands. He informed me that about 1911 the then Governor of the Falkland Islands (Sir W. Allardyce) gave his syndicate a monopoly for exploitation of the Falkland Islands peat banks for 5 years but for several reasons they were unable to do anything. He then showed me samples of briquettes made in the several plants operating. I have since purchased a quantity of Irish peat briquettes, sent some to the Falkland Islands and burned some. It makes a good fuel for an open grate, burns slowly, gives an intense heat and is all reduced to fine ash. The only criticsm against burning it in an open fire appears to be the fine light ash resulting - peat using countries are, of course, accustomed to this.

The process is - peat is harvested during the summer months by specially constructed harvesters which lay the sods so as to assist their rapid drying. Sufficient is harvested to keep the factory fully occupied for the 12 months - working up to 3 shifts daily. The air dried peat is then run into the factory where it is dried again, reduced to a powder and then compressed under great pressure.

Mr. Testrup had previously written -

"There seems no doubt that Briquettes and/or Electric Current "can be produced from peat deposits in the Falkland Islands but "for the purpose of determining the annual production it

/would

"would be desirable to have statistical observations for not "less than 10 years and if figures are obtainable over such a "period it would also be of great help if the observations gave "figures for every day, the same as they do in other countries. "The more material you can place before us the more accurately "would we be able to advise you."

He also states that he would like to have a few small samples of Falkland Islands peat taken at regular intervals from the top to the bottom of a peat bank, also giving the depth of the bank from which it is taken.

With these particulars before him, he would go into the matter further.

A factory would have to be placed near banks which would have a life of about 30 years estimating for a production of 25,000 tons briquetted peat per annum.

It is estimated that the water content of peat in bog is 80 - 96% and after air drying 30 - 60%; on this basis I assume that 1 ton briquettes = about 8⅓ wet peat in bog. A peat bank estimated to have about 6,250,000 tons wet peat in bog would have to be found for the factory site.

I understand there may be records re suitable banks in the Falklands. Mr. Testrup recollected one of about 9 million tons having been mentioned, also one a little smaller.

A plant to produce 25,000 tons per annum would probably cost £40,000/£60,000. Babcock & Wilcox have erected a plant and would quote - guaranteeing output and efficiency.

A plant of this size would employ about 30 men harvesting peat for 5 - 6 months each year. The factory would employ about 35 men all the year round working shifts.

The all-in production costs per ton working to capacity should not be more than 10/- per ton briquettes.

London, 14th April, 1939.

See 58

C.S.O. No. 58/37.....

Inside Minute Paper. *Sheet No. 13.*

72. Minute from Director of Agriculture of 25. 8. 45.

RW 1/10/45.

73. Notes on peat briquetting process by L. W. St. Young, Esq. of 14. 4. 39

74. Letter to Hon. D. W. Roberts, OBE, J. P., of 18. 8. 46

PA Able 19. 9. 46