

C.S.

PUBLIC WORKS
(Water.)

1935.

No. 61/35.

H.E. the Governor.

SUBJECT.

1935.

20th February.

STANLEY WATER SUPPLY -

Elimination of heavy peat content of water delivered through the mains.

Previous Paper.

MINUTES.

1. Minute from H.E. the Governor of 20/2/35.

Director Pub. Wks.
Will you kindly furnish
report. I find that the filtration
plant originally proposed was
not proceeded with.

M.H.
C.S.
21. 2. 35

Hon. Colonial Secretary.

I regret that I misunderstood His Excellency the Governor. I quoted a recurrent figure for eliminating some of the peat stain. With regard to the peat content, I give the following reasons:-

- (a). The primary cause is from peat dust being blown into the open storage reservoir from the Common.

Subsequent Paper.

4

(b). Government House supply passes through two storage tanks in the roof, and undoubtedly collects a certain amount of sedimentation.

2. The peat content is very noticeable at the present time due to the succession of strong southerly winds, and the fact that the reservoir is due for cleaning.

3. I submit that the primary cause could be cured by the roofing in of the reservoir. The question of Government House supply can be altered to take direct off the main instead of through the tanks at a small cost, and I will take an early opportunity to have this carried out.

4. The question of roofing the reservoir was first dealt with in August, 1926, and was brought forward when preparing draft estimates in subsequent years, but each time the work has been turned down. The revised estimate for this work is £970, with recurrent expenditure at say £10 for minor repairs and painting.

Incrustation of pipes.

5. I agree that it is most desirable to eliminate the peat content from the water which is bound to increase incrustation. His Excellency can, however, be assured that mains recently inspected show no undue clogging.

General.

6. The water is collected in a stone run situated at Moody Valley. It is conveyed to Stanley through a 4" main with wash-outs for cleansing the main at convenient intervals. In Stanley the water received from the main is passed through a filter bed and then into a storage reservoir, where it is taken off by a floating arm to the town mains. The filter bed is naturally small but efficient. It contains imported limestone, local shingle and sand, and hydrated lime, imported for the purpose, is added to the filter each month.

2-15

7. As there are several minute papers on the subject of water works, filters, etc., I have had the most important letters, and those having a bearing on the subject, copied for easy perusal and reference.

8. I submit that this M.P. may be passed to the Hon. Senior Medical Officer for his information. I would welcome an inspection and any criticism he may have to make.

9. Finally I would suggest that the question of an increased supply receive consideration. With the number of connections to the present supply there is a danger of shortage during a dry spell. Many people are requesting to have their premises connected to the town supply and have to be refused; also sanitation in the town in the form of more W.C's to the houses, is desirable. A report on the spring and proposed supply from Mullet Creek has been forwarded and samples of water taken during the last 2 years are in this office.

E. J. Roberts.

Director of Public Works
26th February, 1935.

Enclosures.

1. Copy of letter (24/1/25) from Consulting Chemists re filtration through sand beds.
2. Analysis of water (12/1/25).
3. Copy of private letter from the Crown Agents to Sir John Middleton, K.C.M.G. re filtration plant, etc.
4. Copy of minute from Colonial Surgeon re. filtration. (24/4/25).
5. Extract from Minutes of Meeting of Executive Council (24/4/25).
6. & 7. Copy of letters re. addition of lime to filters.
8. Copy of minute from Executive Engineer (21/8/25), regarding the roofing of the reservoir, together with a copy of prepared indent and notes.

J.C.
Report called for by J.C. submitted.


2. The Director Pub. Works might take steps to alter the Gov. House Supply as suggested in para. 3 of his minute.

3. I fear that it will not be possible for the present to extend £970 on roofing the reservoir or to extend the water supply, but these items might be reconsidered when the financial position improves.

4. We have had reports regarding the purity of the water. Peat discolouration is very marked particularly after heavy rains.

MCH
—
Ct.
27. 2. 55

I am glad to see this report. I would like to go further into the question with the D.P.W. when the mail of 6: March has gone

 28/2/55

B. J. 8. 3. 55
MCH 28 2. 55

J.C.
I regret that my note regarding the bringing forward of this paper has been overlooked.

MCH
—
Ct.
20. 3. 55

H.A.
There is no hope of proceeding with
a case to the reservoir in present
financial conditions so this must be
p.a. for the time

~~ttttt~~ 11/4/35

Director P. Wks.

To note.

mch
cs.
11.7.55

Hon. Col. Sec.

Noted.

McColler
12.7.55

~~1.A
13/4/35~~

(16) Minute from Hon SMO 27/5/35

Director Pub. Wks.

In your observation
please. The water has
already been tested has it
not?

mch
cs.
8.5.55

Hon. Col. Sec.

Submitted, with reference to the
Hon S.M.O's. minute of the 3rd May. Red 6.

- (1) It was the intention to connect this trench to the supply, but the water was not fit for potable purposes. I have explained this to the Hon S.M.O.
- (2) This has been dealt with and the paddock is now clear.
- (3) Funds are not available for this.
- (4) Chemical analysis has been taken result is on Red 3, another sample will be sent later in the year. The Hon S.M.O. agrees with this.

Ch. Roberts.

9-5-35.

Hon. S.M.O.

To note.

McH
Ch.
10.5.35

Hon C.S

Noted

Ch. Roberts S.M.O.
10/5/35

P.H.
3/5/35

① Minute from D.P.W. 8/6/35

M. Submitted. If M. approves the C.A.'s will be asked to furnish particulars.

Perhaps the most desirable course would be to provide plants to deal with the whole water supply. In present financial circumstances it would not be possible to consider this at present but it might be considered if and when finances improve.

MCH
es.
11.6.35

There is no question that the best solution would be to get the pure unstrained water from the spring discovered by Mr. Roberts in the vicinity of Port Harriet. Has any estimate of the cost been worked out? Was this the extension recently recommended by the D.P.W.?

MCH 11/6/35

Yh.
The estimated cost was £3,000
details of which are shown
on rebs 2 and 3 of 171/34
attached. This was the
extension recently recommended
by the D.P.W.

Rebs 6 and 7 in this paper
refers to the filtration of water.

M.C.H.
Ct.

11.6.55

I favour strongly this extension of
the water supply when funds can be
found and the question of filtering for
G.H. can be set aside. I note from
the estimates that over one half of the
£3,000 would go in labour costs. Can the
D.P.W. say

- (1) How many men wd. be employed and
for how long
- (2) What the saving wd. be in the Relief
vote for the unemployed if the work
could be given to the latter
- (3) What revenue wd. be obtained, ^{p.c.} from
extension to the existing supply

~~Yh.~~ 12/11/55

Overton P. Wks.

*In favour of your reply
please.*

*MCH
e.s.
12.6.55*

Hon. Colonial Secretary.

Submitted.

(1). A little over half of the estimated cost of £8,000 will be spent on labour.

(2). The work cannot be commenced until the materials are obtained from England. The indent for this is with the Crown Agents for the Colonies. If ordered now they would not arrive until late in the year. The indent was sent in October 1954 with the proviso that no expenditure was to be incurred on the indent until instructions to do so were received from the Colony.

(3). Unless other work is found by the end of the year it will be necessary to discharge about 50 men who are now on the books, thus increasing the unemployed to approx. 100.

(4). The proposed scheme will provide work for 22 men for 6 months.

(5). It will not be possible to absorb any of the present unemployed, therefore there will be no saving on the Relief vote.

(6). It is estimated that the revenue to be derived from the expenditure will be 4% to 5% recurrent.

(7). The water rate is 1/- in the pound of the assessed value of the property to which the water is laid.

C. Roberts.

Director of Public Works.
14th June, 1935.

Yk. In the circumstances I cannot recommend that the work be undertaken until the financial position at 30th June is known.

The materials are a heavy item.

It is hoped of course that employment will be found for a number of men with the Whaling Industry next season.

MCH
C.R.
14.6.35

It will not be possible to undertake this work until 1936 in any event. It

Should be noted for inclusion in the draft estimates. MCH 15/6/35

Director P. Wks.

To note.

MCH
C.R.
15.6.35

Hon. Col. Sec.

I will include this item in draft estimates for P. Wks. 1936. C. Roberts. 17835

P.A.
17/6/35

Fro. T. E.

~~T. E.~~

Unless such a report
shady exists will you please
ask D. P. W. for one on the
elimination as far as possible
of the heavy peat content of
the water delivered through the
main. He told me the other
day that the cost would be
about £300 a year I think.
It would I consider be much
better to spend money in this
than in extending the existing
supply. The large quantity of peat
dust that comes through must
surely tend to clog the pipes with
costly results

~~TTTTT~~

20/2/35-

COPY OF LETTER.

From. Messrs Riley, Harbord & Law.
To. The Chief Inspecting Engineer, Crown Agents'
Office.
Date. 24th January, 1925.
Ref. EFL/IEC.

Dear Sir,

Port Stanley Improvement Scheme
Water Supply.

With reference to your letter of the 19th inst, we are of the opinion that provided suitable precautions can be taken to insure that there is no pollution of the water from organic sources (and we understand from what you have told us that this presents no serious difficulty), the simplest form of filtration through a sand bed should be quite satisfactory. The water in question is of a remarkable degree of purity and for many purposes it might be better if it contained slightly more lime in solution. If, however, this is considered desirable it can be easily added without the installation of any expensive plant.

Yours faithfully,

COPY OF LETTER.

From. Messrs Riley, Harbord & Law.
 To. The Crown Agents for the Colonies.
 Dated. 12th January, 1925.

Dear Sir,

PORT STANLEY FALKLAND ISLANDS 18/9/24.

The following are the results of our analysis of the sample of water received from you on the 31st December, marked "Sample of water from Mount William Stone Run" :-

Grains per gallon.

TOTAL SOLIDS at 240° F. 10.1.
 " " after ignition 6.4

ANALYSIS OF SOLIDS.

SILICA.....	0.19		
OXIDE OF IRON AND ALUMINA..	0.32.		
LIME.....	0.48)	EQUAL TO	(SODIUM CHLORIDE...4.35
MAGNESIA.....	0.52)		(POTASSIUM
SULPHURIC ACID.....	1.66)		(SULPHATE.....0.39
CHLORINE.....	3.21)		(CALCIUM SULPHATE. 1.17
SODIUM.....	1.71)		(MAGNESIUM " ..0.60
POTASH.	0.31)		(MAGNESIUM CHLORIDE 0.75
FREE AMMONIA.			0.0182.
ALBUMINOIL AMMONIA			0.0266.

Equivalent to :

FREE AMMONIA parts per million or milligrams
 per litre 0.26
 ALBUMINOID AMMONIA parts per million or
 milligrams per litre. 0.38
 DEGREES OF HARDNESS 2½

This is a very pure sample of water, the solid matter in solution being very low. The undesirable feature is the quantity of ammonia which indicates contamination by organic matter. It is impossible to indicate the derivation of this organic matter without knowing something of the conditions under which it has been collected, and stored. Have you any information on this point?

Yours faithfully,

p.o. RILEY, HARBORD & LAW.

(Sgd).

COPY OF LETTER.

(3)

5

Crown Agents for the Colonies,
4 Millbank,
London. S.W.1.
3rd February, 1925.

Sir John Middleton, K.C.M.G.,
H.E. The Governor,
Falkland Islands.

Dear Sir John,

As you will doubtless be anxious to know how the matters in connection with the Port Stanley Water Supply are proceeding, I send you a few lines on the subject.

The samples of water were duly received and a portion submitted to our Chemists, Messrs Riley, Harbord & Law for analysis, the remainder being handed to Messrs Vickers for examination in connection with the proposed filtration plant. You will not from the enclosed copy of Messrs Riley Harbord & Law's report dated 12th January, that the sample is of a very pure water, the only undesirable feature being the amount of ammonia which it contains. In view of their remarks as to the ammonia, I saw Roberts in the matter and he explained to me that the area from which the water had been collected was subject to contamination from animal life (in fact I understand that animals were running quite close to the source of collection when the samples were taken) and that the Government intend to effectually enclose the whole of the catchment area from which the water is proposed to be taken, so that there shall be no possibility of any animal contamination.

In these circumstances, I spoke to Messrs Riley Harbord & Law, and further correspondence (copy enclosed has passed, and you will not from their letter of the 24th January that provided suitable steps are taken to prevent pollution, that, in their opinion, the water will require no exceptional filtration treatment to render it fit for human consumption. It is, therefore, clear that the

L.A.

filtration plant suggested by Messrs Vickers at a cost of £700 or £800 is unnecessary, and we are not therefore proceeding with its purchase unless we hear from you to the contrary.

The liming of the water recommended by Messrs Riley Harbord & Law is a comparatively simple matter and we are making enquiries to ascertain whether a simple, more or less automatic, device can be obtained for this purpose. It will, I understand, be necessary to send lime from this country.

When quoting, Messrs Vickers raised the question as to the diameter of the piping. They considered that in view of the loss of head, 4" diameter piping should be used and that the intake should, if possible, be taken at a 40' higher level. Roberts, I understand, can arrange for the higher intake and should do so in any case.

With regard to the 4" diameter main, I would urge that the supply main from the storage reservoir to the town should be at least 4" internal diameter. This main is only about one and a third miles long and the additional cost of the extra inch in diameter would be say £150. There would be no additional cost for laying. My reason for suggesting the larger main is that in the case of fire you will want to use as many hydrants as possible, and to get a good flow of water through them a 4" main will be necessary, especially after two or three years when the interior of the main will probably be incrustated and therefore reduced in effective diameter. The main from the spring to the reservoir will have a gradual flow during the full twenty four hours and the 3" diameter may therefore suffice for a number of years. If the proposal for 4" main from reservoir to town is approved, would you please instruct that the following code word be telegraphed to us as soon as possible.....FOUR PIPE.

COPY OF LETTER.

From..... Messrs Riley, Harbord & Law.
To..... The Crown Agents for the Colonies.
Dated.... 11th February, 1925.

Dear Sir,

Port Stanley Improvement Scheme. Water Supply.

In reply to your letter of the 3rd instant, we realise that you do not wish to go to any great expense in erecting an apparatus for the addition of lime and we would suggest that under the circumstances the simplest plan would be to place a certain amount of limestone on the filter bed and this will be slightly acted on by the water with no risk of the water taking up too much of the lime.

As regards the colour of the water we would mention that the sample received here is slightly coloured, so little in fact that we should hardly think it is worth while taking any steps to remove the colouration, assuming of course that it is derived as you say in your letter from peat. The colour of this sample is much less marked than the majority of waters that are met with in Scotland. We are under the impression, however, that the addition of a small amount of lime will have the effect of also eliminating to a great extent the colouration of the water.

Yours faithfully,

EXTRACT FROM MINUTES OF MEETING OF EXECUTIVE COUNCIL
HELD ON 24th APRIL, 1925.

The Governor informed the Council that on analysis the water from the Mount William stone run was found to be of exceptional purity and that provided suitable precautions were taken to ensure that there was no pollution from organic sources, the simplest form of filtration through sand beds would be sufficient, in the circumstances the purchase of the expensive filtration plant originally contemplated would be unnecessary.

His Excellency also stated that on the recommendation of Mr. G. Roberts, E.E. in charge of the Improvement Works and the advice of the Crown Agents for the Colonies it has been decided to substitute a 4" main for the 3" main first proposed between the intake at Mount William and the Reservoir in Stanley.

Extract from H.P. 199/25.

Hon. C.S.

Mr Braut's letter to me is attached and can remain in this paper. I read it to Dr. Deane a few days ago. He considered that the analysis of the water was most satisfactory and that open sand filter beds were preferable to Vickers self cleansing drifting sand filter. From his experience of this type of filter he thought it might be liable to get out of order. He thought discolouration a matter of minor importance.

2. Will you please refer this paper to Colonial Surgeon in order that he might say whether I have stated his views correctly.

3. I am taking up the question of 4" supply main (from storage reservoir to town) with Mr. Roberts. He wishes to take levels at reservoir and intake before a decision is taken and will report in due course.

l1ld. J.M.
30/5/25.

Hon. Colonial Surgeon.

Accordingly.

Hon. Colonial Secretary.

I beg to confirm what I told His Excellency regarding the use of properly constructed sand filter beds in preference to the use of mechanical filters, which require skilled labour to keep in order and even then are liable at times to get out of order.

The analysis of the water was most satisfactory please.

Sgd. F.C.W. Deane.
Colonial Surgeon.
2/4/25.

I have advised Roberts that in running the pipes from the source, provision should be made for installing a Vickers or similar plant in the future should circumstances require it.

I rather doubt whether the sand filter will remove the peat colouration from the water, and your townsmen should be advised on this point as there might be a tendency to criticise the water owing to its colour, but if it is otherwise perfectly good for human consumption they should be satisfied - (should there be other simple methods of treatment for removing the colouring matter from the water we will advise you).

We have urged forward the supplies of tools, etc., motor lorry and roller, and I have hopes that all will be shipped by the "Lagarto" on the 7th February.

With regard to the C.I. pipes, however, we have not been so successful. The Colonial Office instructions were not received until the 13th January, and although we were then making every endeavour to get the pipes, the demand has been so great during recent months that it has only been possible to secure about 850 yards of 3" C.I. piping, for shipment by the above vessel, but Roberts appears satisfied that these pipes together with the other material which is going forward will enable him to make a good start on the scheme.

In case you have not been advised through other channels I take this opportunity of stating that work on the "Discovery" has proceeded well during the last few months and that she was taken out of dry dock on the 30th January, to enable her engines, masts, etc., to be fitted, and as these are practically all ready, progress should be rapid.

Trusting that you are well, and with kind regards,

I remain,
Yours sincerely,

(Sgd). W. Eraut.

duplicate
11

FALKLAND ISLANDS.

* Give No. and date to be used in correspondence with the Crown Agents.

Indent No.* Date* August, 1926

† Brief description of the goods required.

Indent on the Crown Agents for the Colonies for†
Galvanized Corrugated Iron Roof for covering Reservoir

‡ Department of the Colonial Government ordering the goods.

required by the‡ Stanley Improvement Works Department.

ADDRESS.

Requisition.	O. H. M. S.
C A A	O. A. G.,
(S. I. S).	STANLEY.

If necessary that goods be shipped by a fixed date or by a particular vessel enter instructions here and briefly indicate reason for necessity

Estimated total cost in sterling exclusive of packing and freight £550 to £600

Any other instructions to the Crown Agents as to the execution of this indent as a whole

No tin-lined cases to be supplied.

Space for local use only.

Charge to:- Stanley Improvement Works
Available balance in vote £,100 & 0.00.
Head XIX. Appendix I (1926)
Sub-head 5

I hereby certify that the above requisition is made for the current supply of an established and customary service sanctioned by His Majesty's Government, and that the expenditure has been duly sanctioned by Appropriation Ordinance 1926.

Approved,

EXECUTIVE ENGINEER, IMPROVEMENT WORKS.
Head of Department.

COLONIAL SECRETARY.

FALKLAND ISLANDS.

Indent No.* Date* August, 1926.
 • To correspond with No. and date at head of first sheet.

Item No.	Quantity.	Description of Articles.	ESTIMATED COST IN ENGLAND.			Remarks.	
			Rate.	Total.			
			£	s.	d.		
		<p>Galvanized corrugated iron Roof, 24 gauge, to cover concrete water Reservoir and Filtering Tank to the overall measurements shown on the attached drawing, complete with all necessary trusses, angle iron purlins and other members and bolts, nuts and washers for fixing.</p> <p>24 gauge galvanized corrugated iron sheeting for covering the whole of roof and sides to filter tank with door where shown on drawing and with all necessary galvanized iron plain ridging, and zinc or steel valley guttering where roof over filter tank joins on to main roof.</p> <p>3 No. fixed galvanized iron louvred ridge ventilators.</p> <p>20 No. Corrugated iron fixed skylights with centre bar and Hartley's rough rolled wired glass for skylights.</p> <p>All necessary hook bolts, nuts and washers for fixing sheeting and galvanized bolts nuts and washers, with 5% extras of hook bolts, nuts and washers.</p>		£600.	0.	0.	
		<p>Notes on the roof etc. are attached for guidance.</p> <p>The cost of the above complete in England has been estimated at between £550 and £600, and it is hoped that the sum of £600 will not be exceeded.</p>					
		Total estimated cost of the Indent ...					

(8)
15

n.

To.

Executive Engineer,
Improvement Works,
Port Stanley.

The Hon.
Colonial Secretary,
Port Stanley.

21st August, 1926.

STANLEY IMPROVEMENT WORKS.
Water Supply) - Covering for Reservoir and Filter Bed.

With reference to the above, I beg to report that it is considered desirable to roof the Water Reservoir and Filter Bed to prevent dirt and peat dust from being blown in from the adjacent peat bogs on the Common; also affording protection from frosts during winter months.

2. His Excellency Sir John Middleton expressed a desire that, if possible, this should be done.

3. Although no provision was made in the estimates under Water Supply for this work sufficient savings have been effected on the work so far carried out to meet this contingency.

4. I therefore attach indent on the Crown Agents for the Colonies for a galvanized corrugated iron roof for covering the reservoir and for enclosing the filter bed together with a drawing and notes on the roof etc. required.

5. The cost of this work is estimated as follows:-

Materials complete in England.	£ 600.
Freight and Landing Charges.....	140 + 10
Transport and erection.	<u>120 + 10</u>
Estimated total contingency.....	<u><u>£860.</u></u>

S. Roberts,
Executive Engineer.

Enclosures.
Indent, in quadruplicate.
Notes on roof.
Drawing dated 19/8/26.

} for Crown Agents.

14

FALKLAND ISLANDS.

ROOF FOR COVERING CONCRETE WATER RESERVOIR AND
FILTER TANK.

- (1). A galvanized corrugated iron roof is required to cover the concrete Water Reservoir and Filter Tank to the overall measurements shown on the drawing dated 19th August, 1926., attached hereto, complete with galvanized corrugated iron sides to the filter tank, and with door 7 ft. x 4 ft. as shown at "C" on drawing.
- (2). All the necessary materials are to be supplied for the complete roof and adjoining shed for covering filter tank, with steel trusses, angle iron purlins and other members and galvanized corrugated iron sheeting of 24 gauge, with all necessary galvanized iron hook-bolts, nuts and washers for fixing sheeting with 5% extras of hook bolts, nuts and washers. All necessary galvanized plain iron ridging and galvanized zinc or steel valley guttering for the valley where roof over filter tank joins to the main roof of reservoir, with all necessary 1/4" galvanized bolts, nuts and washers for securing. No eaves guttering or brackets are required.
- (3). The necessary concrete piers to support centre of trusses as shown at "D" on drawing also for shoes and holding down bolts will be provided locally and put in when spacings are known.
- (4). Ample provision should be made in the roof for ventilation and lighting. It is therefore requested that the following may be provided and supplied:-
- 3 No. Braby's (or other similar) galvanized iron fixed louvred ridge ventilators, 4 feet in length.

(2).

13

20 No. Braby's "Eclipse" (or other similar) corrugated iron Skylights, fixed or dead, with centre bar.

50 Panes of Hartley's rough rolled wired glass for fixing in above skylights.

Size of pane 38.3/8" x 10 1/2". (This size is given by Messrs Braby Ltd. as being suitable for above skylights).

(5). No attempt has been made to design or to give the sizes of the various members for the steel trusses, as it is desirable that the most economical type of roof be supplied consistent with strength observing that it will be subject to strong winds and that it will be erected in an exposed position. Only overall dimensions are shown on the attached drawing, and the pitch of roof shown is merely diagrammatic and may be altered if considered necessary and if more economical. The chief reason for roofing the reservoir is to prevent dirt and peat dust from being blown in from the adjacent peat bogs. The design has therefore been left to the Crown Agents for the Colonies, and these notes and attached drawing are given as a guide.

(6). As there are no facilities in the Colony for rivetting it is requested that bolts, nuts and washers be supplied in lieu of rivets for fixing the purlins and other members of the trusses.

(7). All parts

(3).

12

(7). All parts for roof trusses, etc., should be lettered before shipment and a key plan supplied and forwarded by the successful contractor to facilitate erection on site.

(8). The cost complete in England for the whole has been estimated at between £550 to £600, and it is hoped that the amount of £600 will not be exceeded.

C. Roberts.

Executive Engineer.
19th August, 1926.

MINUTE.

3rd May, 1935

From

From, Senior Medical Officer.

THE COLONIAL SECRETARY,

Stanley, Falkland Islands.

I have the honour to inform you and wish to report that, recently, I inspected the Stanley Water Supply.

At Mullet Creek.

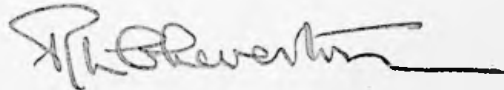
1. The small collecting channel on S.E. side of the 'stone' river might, with advantage, be completed and connected up to the present collecting chamber.

2. A dozen or more sheep were grazing in the enclosed area. The P.W.D. have been informed and are dealing with the matter.

At Stanley.

The quality of the water would be improved, if the tanks were covered over, but I understand that funds do not permit of such work.

It would be of interest to take samples of water for chemical analysis, six different samples would be required.



Senior Medical Officer.

No.

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

MINUTE.

8th June, 1935

From Director of Public Works,
Stanley.

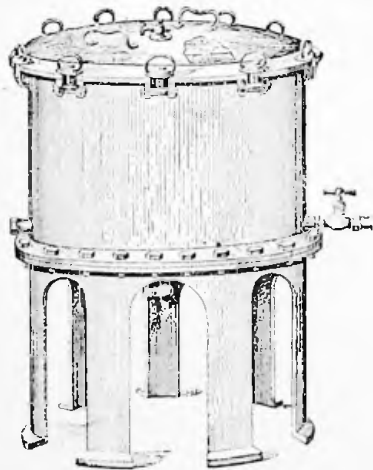
To
THE COLONIAL SECRETARY,
Stanley, Falkland Islands.

His Excellency the Governor is desirous of having the peat stain eliminated from the water supply to Government House. I am not aware of any filter at present on the market which will achieve this, but I would suggest that enquiries be made from the Crown Agents for the Colonies as to the possibilities of carrying this out with a main pressure filter which could be inserted into the main supply where it enters Government House.

2. I attach an illustration of a pressure filter made by Messrs British Pasteur Chamberland Filter Company, 5 White Street, London, E.C.2. It may be possible that this firm could adapt one of their appliances for eliminating peat stain. In making any enquiries it should be stated that the filter is required for insertion into a 1 inch main supply pipe, the pressure being 35 lbs per square inch. The output per day of the filter should not be less than 600 gallons, and after passing through the filter the water will require to rise to a 400 gallon tank which will act as a filtered water reservoir. This tank is situated 30 feet immediately above the proposed site of the filter.

3. The price f.o.b. with one battery of spare candles or other filtering medium should be given.

C. Roberts
Director of Public Works.



No. 232

LARGE SIZE
MAIN PRESSURE FILTERS
FOR USE WITH
FILTERED WATER RESERVOIR

No. 232.—CAST IRON, galvanised throughout and fitted with N.P. inlet, outlet and air cocks.

No.	No. of Tubes.	Output per day.	Price.		
			£	s	d
232 A	10	200 gallons	14	0	0
232 B	20	400 ..	26	10	0
232 C	30	600 ..	37	10	0
232 D	40	800 ..	48	10	0

SPARE CANDLES, No. 1, for the above Filters, 5/- each.

For prices of Filtered Water Reservoirs, see page 14.

Prices are subject to a ¹⁰25% discount if purchased through the C/A's