SLIPWAY. 1920. SHI/JET/1 # 4 C.S. 886/20. SUBJECT. Col: Secretary. 192 0 Proposed slipway to be constructed at Stanley. 16th Dec: Paper. 340/19 458/10 340/19 Telegram from the Crown Agents of the 2nd Dec: 1920 filed at Government House. Reply to telegram of the 2nd Dec: 16/12/20. from for Escellency the attacher telegram has been sent to the & agts, The ovojmal telegram from PA is on Confiles. Skly 03. mesown Agents of the 24th revember 1920

30

Encl 3

m Harbour Master of the 1st January 1929 sequent Paper. Report from Harbour master of the 1 st

The just at Erect a slipway has hen represent ly sas to Cumagnis who have him required to advin formally on the propose + proticularly of (a) The staff + salarie which would be required (b) The properable receipt a Expenditure of the Slipway on ordinary repair to sighten categor It is added the this number will probably Il inerend to thirty in run fullar 2. The Lorden agent of the nowegian Wholing appreciation 3. Isaw almid Calmichael on 23th Imante 1920 with require with perpende. The Willer of 22 1 + 24 th mounte 1420 from Tupes Hanney of which are in Man pupers, had only pint Men recured in Cas office. Edinie Caliniahue had not for inte the project in duril his statu that putath unance he much in Except of Minist propand in closely. The information available was insufficient to mathe Cas to white a project o fulka particulus alguna an Statid in Cum agents Migram 9 2" one 1920. H. Will you plear ask Esterial Engineer + Houston marta de prepara forme referer on (1) Popille site for a slipuray having regard to turns of regulace to Crown agents by 5 9/8

4. (CMA)

(2) Particular required in Case apas

Negram y 214 Dicembr 1920 (SC & O. M.P.
7/20)

Pone.

a cept, y which should be included

14 Shorts 1421.

Coloneal Temponeer.

Please frefare report

in co operation worth Harbour.

as desired by this Excellency.

The 123

Torics

14 January 1921.

The Hon: Col: Secretary.

should the weather be suitable and circumstances will allow the work of obtaining the necessary data will be commenced next week. I shall be glad to know under what vote any expenditure in connection with this matter is to be paid. I would suggest the amount of £50 as required in the first case, the cost will be according to the extent of boring required re foundations.

9.3.3 C. E. 3/2/21.

It & Sabmitter got of Febru

H.C.S. of Cd: Symen after having considered information required by leven agents is of opinion the Expenditure of \$50 0 They ary to add the information whed In may or total furnished a special P. W. Extravalinay. Warrant for the sum may be submitted lu ander sur little Exaprise. 2. Much Valuable time is buy lost. 12 May 1921. Coloma Dongmen. To your silling Hon boi Decy. Special Worrant for to so herewith. The work is in progress: RABAS. 6.2. 22/2/21 He signature of S.W. for \$50 attached haven with the . T.o with draw of W. Nº 5./20 125 Feby 1921

Hom. Col. Sec.

will a an accordingly

to whompson

Colonsal Engineer

Jou have asked for this fel 1 24 Beleg 1921

The Hon: It: Secretary.

foint report herewith also having of soundings ele. "

RAB. 3/3/21.

H.E. H. Governor

Submitted huthorifa a.c.s. 5/2/21

H.CS.

Will you please Lan plegram as in

diall altricked put into code of ails you

Ut me su it Nopre ipen.

2 march (921.

H.E. the Gourney

Graft submitted

10/march (921. a. cs. 10/3/21

Telegram & CA of to 11 th maring?

For your information.

how from pour

The Hon: We! Secretary.

Thank you noted & returned.

BBB.

i. E.

14/3/21.

Minute from Harbour Master autea 26th March 1921.

H.E. the Governor,

Submitted.

A. C. S.29/3/21.

Auxhor ton

hill you please send this refund to CM: Sopries of any observation to may have to offer. Oh 29 march (921

Colonial Engineer,

Report referred to you accordingly for any observations you may have to offer.

A. C. S.30/3/21.

The Hon. Col. Secy.,

At the time the building of a Slipway was first proposed the draught of Whale Catchers was obtained from a Norwegian Captain and Captain Smith (Harbour Master) and it was thought advisable, when considering the depth of water required on the slipway, to take into account the maximum rather than the minimum draught.

I think it will be found that the Whale Catchers are placed in a dry dock when at Monte Wideo and that

Sheet No.

that it is not of vital importance whether they draw 6',9',or I2' as there is always sufficient water on the sill to pass the vessel in or out of dock.

In my opinion not less than 9 ft draught should be allowed as occasions may arise when it would not be possible or desirable to lighten a vessel before slipping, and, in case of an accident to the slipway it is a great advantage to be able to further lighten a vessel for re-launching.

With regard to the length of slipway and the depth of water on the sill this is governed not only by the draught of vessel but also by the height of the cradle and state of the tide. To enable the anticipated work to be got through in the short period of time available slipping must be possible at least two hours before and after low water spring tide.

In the cable of the IIth. March 1920 the available depth of water at high water springs was given as I7 feet at I50 yards from high water mark. Deducting 3 feet for cradle and 4'-6" for the drop of tide, two hours before and after low water spring tide there remains a depth of 9'-6" of water over the cradle.

It would not be wise to provide slipping arrangements which depend on the full height of sp spring tides.

Owing to the small rise and fall of tide in Stanley any slipway which may be constructed in this connection must have a large portion of it permanently submerged which is most undesirable.

I consider that Messrs Flannery, Baggallay and Johnson Ltd. will have made full enquiries from the

Owners or

ners or builders as to draught etc. for docking purposes, though it might be advisable to inform them that we are told that the vessels can be lightened to a 6' or 7' draught but that we do not advise limiting the depth of water at the slipwaay end to provide for such draught only.

C.E. 4/4/2I.

N. E the Governo

Submilled Auxhompson a. C. J. 5/4/21

Hes.
Will you plan telegraph to minister
Smort Video in pllming server
Request you will be good enough to

When dicked as mint video place

bligaph riply. Dr.

8 april 1920

Monte Video 9th Afril. 1921 Enol 8.

H.E. the Covernor,

Submitted .

2. Telegram despatched.

A. C. S. 9/4/31.

A. C. S. 9/4/31.

Mulliped 1921

Collegram from of minister of onte Video reed 12 to april 1921. \_\_\_\_ Enclose

Sheet No.

H.E. the Governor.

Submittei.

A. C. S.12/4/21.

hate se @ for the futher observations. 12 april 4921.

Colonial Engineer,

For any further observations you cay have to make.

buthoupe

The Hon. Col. Secy., Telegram from British

Minister at Monte Video of I2/4/2I noted.

I am of opinion that it would be advisable to telegraph to Messrs Flannery, Baggallay and Johnson, Ltd. and request them to ascertain, if they have not already done so, from either Builders or Owners the usual draught of Whale Catchers when in condition trim for dry docking or slipping.

H.E. the Governor,

Submitted.

A. C. S.15/4/21.

August return of Harban Grante to Starley
Men, + Men sona happer to him.

At 156/pil 1921

Harbour Master,

Papers referred to you for your

observations.

Sushowpour

A. C. S.16/4/21.

Hon Col. Sec.

I begro suggest that MEasters Hammeny, Baggallay & Johnson be communicated.

- 2. The mascinum draft of Catches upon departure from Stanley has, up to the mesent, been 11'7" and have accordingly been charged at the rate 12 ectionage.
- It would by the information from montevid to. that Catchers are in no way lightlened jovevino to docking. This may possibly be on account of the Factories not wishing to arrive at home with more coal thorn is necessary for their own Consumation. Kerfore possibly they coal their Catches mive to leaving them at montevideo.
- In view of possible increase in draft of venerls which might how ibly reeding docking in Stanley is, therfore, appears adviscable to allow ( a a fore draft for the building of the Slipway.

Cohin & Stocker harbour masts.

H.E. the Governor,

Submitted.

Suthompson 5/5/21.

Letter from Crown Agents, dated 30th December,

2. Encl: (10) would seem & refor to Smal: (1).

14 aug 1991.

Sheet No. 6

The following supplementary es femtiliere approved by Legislative Council as a meeting held on the 23rd Sep 1921

linder ××1× P. W. S.

12a Shipoway £ 50.

Gell & Lower Legislative Coming Clerk hegenlative Coming 23rd Sept 1921

MA assistance for the Committee with the later of the lat

the Transe and 6 MM.

Whene

Whene

Telly 4/9/21

How: Col: Sec. Molech. Kuthorupon Turena.

Hon. Col: SECIETARY.

Noted & returned herewish.

Colin Estoculy.

Setter from Brown agents d 4/12/21 \_\_ Encl (11)
Copy of Report from Consulling eVaval

architects d/22/11/21 \_\_\_\_\_ Encl (11a)

Albu illed. I The question affect to ause, in view of the proposal of the F.I. Company to proceed with the project of meding a ship way a h whether it is not ad is able to ente mili negotialins with the Company for them to take wer not some for hor olipways and an undertaking of this kund can I submit be belle worked by a commercial concerns. Hill 23/1/22 The altreha Extract from 9. 18. 40/1911 Shows the the orginal proposed as the Tow shrie affine productes for affecting whalls. It was incorneid the the winder, Min is a Soul a count was me like whay: the indicat bumps what Sun amea duin m such as undustring as from Couragines & he waitable (co may in commarine & her per available for my and and of the consultation monate of the consultation monate of the consultation monate of the consultation of the consulta Is provate Interpresent fly a long lean of a surface sit : if the I. I Co an Inr desirer of providing precilities for lepain

of whales there is alway perpetiting

Inside Minute Paper.

14 Horning

formalion of a weal Cosupony for the purpose. 3. Manline I have seen In Hunding L huform he the his spile Unculnin White the II confund contraffet a saf In their our lighter + seromus a a larger concern which would afra fredition In Upair of whalers. 4. I stiffnha this he should comide the langue schime + I san him the plan Which accumpanied & g populle sels a Tury Cur - Rednund Pener. W. Harding will consuly Caps Rebut & discups mutter later. 5 I Inne is chew the see a Sele for a slift a the marker it comed han hit pur Uf to anelin + granantes ames to regund ther with and to undertaken without a

definite fried.

6. In Harding suggested the a plasson & alummorate 445 repel which is sighten in Un at ment video l'unte auna Balia Menea might from mu Denomical Am a slef. Cept Rebus Koruns alur the arrangement as nom to ledio when wholes ale ou preme plepanid. 1.12. 16 hora 1922

C.S. For white

tette 6/3/22

The Hon: Col: Secretary.

noted of returned. ARBarelez. Whomial Engineer 20/4/22.

Is Submitted . Junday west at 12 is can be arranged for the weeting. I have spoken to her. Harding and Captain Roberts and home of car allend have

M Tett 22 grid 5 2 2 26 april 1922

Lan auxuis to apra I. Co cong oppulunity of purceding with proper A Slip way of they will undutrke is. in annelin with it.

- 2. It is pupill the Maling Companies Might combine in constructing a slife of
- 3. You suffered the before should to given oflin of Junchese as and of here: His would be a salisfactory arrangement

Inside Minute Paper.

Sheet No. 8

but the + a shorter lun Um 21 years

A. It alter an hardly sufficiently advanced to math any definite proposals to to made to Syl.

27 april 472

ellimites of ellecting of 25th aft 1922 - Encl (13)

Letter from Hon W. a. Harding of 1922 - Encl (14)

Minute by the Governoon of 30th apr 1922 - Encl (14)

Letter from Hon W. a. Handing of 1th May 1922 - Encl (15)

Letter from Hon. W. a. Harding of 1712 July 1922 - Encl (16)

Submilled.

It is our left to the Every 
went to proceed with the project

and that cannot be done until

the available personne is

dekunined.

yo ack. letter?

fitth 19/7/22

Minute by H.E. the Governor of 19 "March 1923 - End 17

H. Jubn iller tillt 20/3/23

Dispunch as in draff almohed topon 1.8 april 0473 Despatch to S. of S. ho. 52, of the 18th april, 1923. Euro. 19 The . B 020/080. 24 april 1923 The sketch plans showing should In folded in with brewords withich they 24 april 423 48. To include Des 52/23 in Schedule of un answered despatches? O. 3/500 5 De1963 All 5 Dec. 23 Vide Leonemors Ders 157/23 1. P 139/20

Inside Minute Paper. Sheet No. 9 On 13th Yorkowith 1925 Itald Captur name Dudto y Compania agnina de Pasca + W. Jacobson the Monage of the Company the the Low was arrevis the a slip a Will Egraphed Ship repairing yard should in 8 Willished as Sunly + us willing to grans a sit + who to fir some francial aprimence towards capital I they was from a chang harlow + the plan /190 herin) showing soundings ar Medmans Mont which they visited. 4.3. W. achsen said the opreiding Runigian Wholes might to intrusted in the schine the furning to print in 4. Cife huns & M Jacobson ded mor do cup the propier with me prette after Mu vinis & Redmond Point which dis IN indicat the they one very keen in who Isport to the then by 134 hours

20-24 Despitch from 5. of S. hr. 8 of 19/1/27.

The . Dearwar

bod hiller Please Lor

27 MW: 6925.

9. 3. 27. By lol Le

How bol See. amounting to = 78 - 15 - 0 w to the charged to Dependencies Funds. Vide ved 20. M. brange Halket nens. 9 3 27. aveal luditors Passed to you. me # 9.3. 77. Hon al See Noted thank you. 1. Barlas 20. Rocal Smiller 10.3.27 In hearwir. WM you phase advise Me as to heading unfor which 11, 3, 27 above charge should be brought. to account. Skais 31 Aug 192) Hon bol See. The charge of 278-15-0 appeared the charge of 278-15-0 appeared in the C. a's afe's for January 1927, and was charged to Dependence is Eschenditure new stem Eschenditure her item 1. Slepway at Stanley. Was also reported in return that chaque for march Quarte. 2. I reported on the 22 buly last that no Special Warrant had been taken out. M. brug Harhet Freno 1.9.27

(a)

## TELEGRAM:

From: The Crown Agents.

re: The colonial Secretary.

Dispatched: 2nd December, 1920.

Received: 4th December, 1920.

December 2nd: With reference to your telegram of the 18th June to the Secretary of State for the Colonies, following particulars required: Depth pf water high tide available for entrance of ships. Average rise and fall of tide. Angle of slopes of beach at proposed site. Whether foundation sand, clay, rock, and extent piling required, Whether workshop buildings constructed locally bricks or steel.purchased in this country. What existing machine tools belonging Government, telegraph information as far as possible and report by first mail. See letter of 24th November

Crown Agents for the Colonies.

No. 886/20.

(It is requested that in any reference to this letter, the above Number and the date may be quoted). THE OFFICE OF THE COLONIAL STANLEY, FALKLAND ISD

18th December, 1920.

The Colonial Secretary of the Falkland Islands has the honour to inform the Crown Agents for the Colonies that he is this day sending to them the following telegram:—

UNWREATH INTRINESS SNOEDISH SEVINGBIRD MAYBRICK TONGUING AND IDENTISM EDOMANTIA WORK CIAMPICARA BUT TRAINASTY DANDEREUL. SECRETARY.

With reference to your tologram of and December information asked for will be supplied as soon as possible. Meantime owing to bad meather and illness of Colonial Engineer work cannot be someoned at earliest possible date.

THE CROWN AGENTS FOR THE COLONIES,

4 MILL BANK,

LONDON, S.W.

Falkland Is. 1447

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES.
THE ABOVE REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED.

TELEGRAMS, "CROWN, LONDON."
TELEPHONE, 7790 VIOTORIA



#### 4, MILLBANK,

WESTMINSTER.

LONDON, S.W. 1.

24th November, 1920.

## Falkland Is. Reqn. No.1447.

Sir,

to the Secretary of State for the Colonies on the subject of the proposed installation of a slipway and work shop at Port Stanley. I have the honour to enclose for your information copies of two letters received from our Consulting Naval Architects, Messrs Flannery Baggallay & Johnson, from which you will note that a specification is being prepared in order that provisional estimates can be obtained.

With reference to your despatch dated 18th June,

Before however final estimates can be arrived at, it will be necessary for the Colonial Government to furnish answers to the queries embodied in the enclosed letters.

Before this letter is received you will also have received a telegram asking for the particulars required.

I have the honour to be,

Sir,

Your obedient servant,

for Crown Agents.

The Hon:

24. 11. 20.

22. 11. 20.

The Colonial Secretary,

Falkland Islands.

9 Fenchul

London .

24th November 1920.

Gentlemen,

#### FALKLAND ISLANDS 1447

Confirming our letter of 22nd inst, and as we understand that it is necessary for you to catch the mail tomorrow with any further intermediate information or queries we beg leave to confirm the Conference held today between your Mr Horsburgh and the Norwegian Whalers Association Agency in London and ourselves.

- 2. The information before us from the Colony is as already stated insufficient to enable us to check in detail the estimates of £3000 for the Slipway and £5000 for the Workshops and Plant and with the further information which you are obtaining both on the spot from the London Agency of the Norwegian Whalers Association and from Norway itself through that Agency we nope in a few days to be in a position to prepare an outline Specification of what is required and an estimate of the total cost.
- 3. We must point out that much depends upon the suitability of the foreshore for erecting a Slipway economically but we will assume a first class site with a firm bed as a foundation and we will provide in the Specification for the necessary rails and cradles to lift ships out of the water of the maximum size of the Norwegian Whalers Fleet.
- 4. The question of tools and of power for driving them in the Workshop is also of the first importance and we will include in our list in the first instance only the minimum required for ordinary repairs, to Mull and machinery of ships of the sizes above named.
  - 5. With reference to paragraph 3 of the Colonial Office letter

letter of 17th September last we would observe that Mr R.B.Bastley the Colonial Engineer having the high qualifications named should in our opinion be fully qualified to efficiently supervise repairs to Hulls as well as machinery and to have full charge of the Slipway and Plant.

- 6. We will have the pleasure of reporting further in a few days with Specification and estimate and in the meantime you might kindly obtain by cabling information upon the following points:-
- (a) Depth of water at high tide available for entrance of ships.
- (b) Average rise and fall of tide.

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Director state with could be a feet to

THE PERSON NO BE AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON NAMED IN COLUMN

- (c) Angle of slope of beach at site proposed.
- (d) Thether foundation is sand, clay or rock and how far piling would be considered necessary.
  - (e) Whether Workshop Buildings would be of brick locally constructed or of steel exported from home.
  - (f) What machine tools exe already at Colonial Government's disposal in the Colony available for ship repairing.

Yours etc.

Flannery Baggallay & Johnson Ltd.,

(Itld.) J.P.F.

MESSRS FLANNERY BAGGALAY & JOHNSON, TO CROWN AGENTS.

S, Fenchurch Street,
London, E.C.3.

22nd November, 1920.

## FALKLAND ISLES 1447

Gentlemen,

Confirming our telephone conversation of to-day, we have carefully considered the copy of Colonial Office letter dated 17th September last and which in turn encloses copy of a letter received by the Secretary of State from Mr. W.P. Martin, dated Government Stanley 18th June last all as enclosed in your letter of 20th September last.

Before reporting in detail on the Colonial project we think it might be useful if appointments can be made with the London Agent of the Norwegian Whaling Association as suggested in the second paragraph of the Colonial Office letter dated 17th September last.

It is assumed that the Colony does not possess workshop or of any description at Stanley and that a completely equipped workshop should be provided for.

The estimated cost of £3,000 for the Slipway and £5,000 for workshops and machinery referred to in paragraph 4 of the Administrator's letter of 18th June last addressed to the Secretary of State are in our opinion under-estimated but we would be better able to judge on this point if a little further information could be given on the point above referred to.

It is also noted that the estimate is based on the assumption that the slip would have to be renewed in 8 or 10 years, in this regard we would mention that Slipwaysin this Country

Country are found to be considerably longer lived and this very short extimated life leads us to think that there are some special peculiarities in the waters of the Falkland Isles, against which special precautions should be taken, but there is no information on this point in the correspondence before us.

As you are already aware the materials generally used for a small slipway of this description are pitch pine foundations with steel rails and cast iron racks fitted thereon, the pitch pine being creosoted under pressure to withstand the ordinary action of sea water. It will, however, be found in the case of the new slip proposed that a ferro concrete base or a base of some similar material might be adopted, at a little extra initial cost, to guard against chemical action of the water in the Falkland Isles and which would probably result in the life of the slip being prolonged for a much greater time than the 8 to 10 years suggested.

We do not know if a plan of the Port of Stanley indicating the proposed site for the Slipway and Workshops is available, if so this might be helpful to us in preparing our estimate of the cost of Slipway and workshops and the facilities to be provided for carrying out the repairs to the Catchers as proposed.

Awaiting your further information on the above points and the suggested conferance with Messrs Norwegian Whalips Association,

We beg to remain, etc.,
FLANNERY, BAGGALLAY & MOHNSON LTD.,
(Int) A.E.P.

M. A. 886/20 HARBOUR MASTERS OFFICE. PORT STANLEY. 1 January, 1921. The Honourable The Colonial Secretary. Sir, IN accordance with your instructions of the 31st, ultimo in connection with the construction of a slipway in Stanley Harbour to afford facilities for the repair and overhaul of vessels of about 12 feet draft. I beg to report, I have sounded that part of the Harbour named Fairy Cove and found it beset with large boulders having a depth water upon them of 1foot L. W. springs. The shore to the West of Fairy Ceve, from which the GREAT BRITON bears EAST, is of a rocky nature, the beach shelves gradually and on the edge of the kelp 150 feet from the shore, a depth of 7 feet at L' W'was found and thence Eastwards deepening at 150 yards from the shore to &6( sixteen) feet. A vessel remained on a slipway constructed on this site would not have sufficient water beneath her keel to allow for launching . A vessel being navigated on to the slipway would not have sufficient room to manoeuver in any but a West pr North Westerly wind being likely in South or South Easterly winds to sag down upon rocks which lie close to and to the North of this site. I would respectfully submit that a site at the Eastern end of the Harbour could be found to meet all requirements and would be sheltered from the South & S.E. winds that prevail during that period of the year the whalers are likely to be in Stanley. This would also keep the anchorage clear for vessels who

wished to go alongside the hulks and permit the manoeuvring of lighters with safety, as with no permanent moorings laid down the necessary length of cable needed to permit a ship to lay without dragging her anchors and sufficient sea room, would block the anchorage tp sther craft.

I have the to be, Sir,

Your obedient Servant,

Colin & Hockly.

# REPORT ON PROPOSED SLIPWAY AT PORT STANLEY FALIGLAND ISLANDS.

We, the undersigned, beg to submit the following report on the Proposed Slipway at Stanley to provide docking facilities for eighteen to thirty whale Catchers. This report deals with:-

- I. Conditions and circumstances which have to be taken into consideration when contemplating the building of works of this nature.
- 2. Staffand salaries which would be required.
- 3. Estimated receipts and expenditure of slipway on ordinary repairs to eighteen whale catchers.
- 4. Possible sites in Stanley Harbour.
- 5. Particulars required by Messrs Flannery, Eagallay and Johnson, Ltd. in their letter of the 24th.

  November 1920 to the Crown Agents.

#### I. Conditions and Circumstances etc.

a) When considering the question of constructing a slipway and works to undertake the overhaul of I8 to 30 whale catchers and fulfilling the conditions as set out by the Nowegian Union of Whaling Companies in their letter of the IIth March 1919 (M/R. 758/18 para.5)

It becomes a matter requiring great consideration as to whether the enterprese could be made a financial success, seeing that it would be necessary to construct slipways and works on so large a scale. Much larger than originally contemplated.

estimated to be six feet, but cannot be relied upon as the tides are greatly influenced in Stanley Harbour by the direction and force of the wind. Seeing that provision has to be made to slip 30 vessels twice in one season making 60 slippings in a period of 28 weeks, then the slipway must extend to such a distance as will enable the vessels to be slipped, irrespective of height of spring tides, at least two hours before and after low water spring tide.

It is considered that the depth of water required at the end of slipways will be about I6 to I7 feet at least, which will require that they extend about 200 to 260 yards beyond L.W.S.mark. This section of slipways will necessitate heavy expense to maintain and keep in good repair.

The average extent of beach from H.W.S. mark to L.W.S. mark is about 40 yards.

the winter months when the weather usually is adverse, at least for painting, and the days are short.

Allowing five vessels on the slipways at one time and the average period of fourteen days for each, a large staff will have to be employed to enable the work to be carried through in the allotted time.

Employment will have to be found for these men during the months when the slipways and works will not be required, as there is not, in our opinion any prospect that the works will be required all the year round.

There are other difficulties to be overcome but

it appears to us that the foregoing are the most serious and must be faced before anything can be definitely decided.

## 2. STAFF AND SALARIES which would be required.

Under this head the general overhaul, to be defined hereafter, of IS whale catchers has been taken into account. Should the number be increased them the amount and cost of labour would be in proportion.

Ey general overhaul the following items are included.

Out board. Placing vessel on slip and re-launching same.

Scraping and examining and painting hull.

Open, examine and close all close all sea connections.

Examine propeller and nut also to gauge drop in shaft.

Examine rudder and undertake necessary repairs.

In board. Heave out anchor chains, test links and studs and owerhaul shackles, examine and replace in chain locker.

Clean out chain locker.

Minor repairs on deck to winches, steering gear, decks, boats, galley etc.

Open boiler, examine, clean and undertake all minor repairs. Close boiler and float safety valves.

open all boiler connections and overhaul same, re-close.

Open out main engines, examine and undertake minor repairs, re-assemble.

Open out auxiliary machinery and replace. Clean bilges

In board contd.

Clean bilges and tanks.

Examine stern glands and re-pack if necessary.

Any other works of a minor nature.

Other work requiring the use of heavy machinery and the supply of special materials such as new plates, boring of cylinders, truing up rods etc., re-tubing, boiler and repairs to furnaces and such like work to be considered as extraordinary repairs and to be charged for accordingly.

Considering the very unsettled condition of the labour market and the high rate of wage paid to skilled men in the ship building and repairing trades, to give other than an approximate estimate as to salaries becomes impossible.

The highest rates will have to be paid as the best man are required, not men gathered from the unemployed labour market, as they cannot be re-placed if found to be unfit for the work. This is absolutely necessary as the work must be done well and must satisfy the Underwriters' conditions.

There may not be for some years any call for repairs of an extraordinary nature, but it will be necessary to provide labour and appliances to undertake this work should occasion arise. Such being the case the following is the suggested list of staff and the estimated salaries required.

Slipway Foreman and Rigger.

Shop Foreman and Machinist.

Boiler-maker and Plater.

carried forward

1050

Dhn	carried forward	£ 1050
4	Machinists & Fitters 5 @ £250	I250
5	Carpenters 3 @ £250	750
6	Smith	250
7	Storekeeper	250
8	Clerk and Timekeeper	250
9	Riggers 2 @ £200	400
IO	Fitter's labourers 5 @ £175	875
II	Smith's mates 2 @ £175	350
12	Engine driver	175
I3	Stokers 2 @ £160	320
I4	General Labourers 25 @ £160	4000
	Say £10,000.	£ 9920

3. ESTIMATED RECEIPTS AND EXPENDITURE OF SLIPWAY ON ORDINARY REPAIRS TO EIGHYEEN WHALE CATCHERS.

It is a most difficult matter to state or even give any reliable figures under this head, as the whole question is influenced by the first cost of plant; cost of stores; depreciation of plant; interest on capital; annual maintenance of staff. These items would govern the charges placed on vessels slipped and repaired etc.as the whole of the annual expenditure will have to be covered by the payments made in connection with the slipping and repair of I8 whale Catchers.

At this stage we fear that it is impossible to give a statement as to the possible receipts and expenditure. The following is submitted to give a rough idea of estimated receipts and expenditure per annum.

Receipts.	Expenditure.	
By sale of stores. 2986	To interest of IO% on first cost of £ works-£50,000. 500	
By slipping and	" Depreciation on	
ordinary repairs	whole plant @ 5% 250	0
to I8 vessels	" Insurance on £25000 @ I # 25	Λ
@£1713 per vessel,30834		
	" Wage A/C IOOO	U
•	" Stores 300	0
	" Coal etc. I000	0
	" Profit @ IO% on £30,750 being total of expenditure. 307	<del>0-</del>
£33,820	£33820	<u> </u>

#### 4. POSSIBLE SITES IN STANLEY MARBOUR,

Two sites have been viewed, one on the south side Redmond's Point opposite the Narrows; the other on the north side of the harbour at Fairy Cove.

In our opinion Redmond Point is the best site in every way. The following items having been taken consideration:-

- the surrounding land at thes point is level on the whole, rising gradually from the fore-shere for some considerable distance before coming to the ridge of rocks and high land. This will afford ample space for the erection of the various workshops and store sheds which will be required. Further the shore end of slipways can be carried well on to the land. There is also space for side-slips should these be required.
- (b) The harbour at this point affords plenty of sea room to manoeuvre the vessels on to the slip and after wards to launch

to launch them without danger to other shipping.

It being considered that the fleet will be moored to the west of the Government Dockyard Jetty.

- as the Town is situated will be a great advantage in respect of transport, especially of labour, as the workmen will be able to get to their work in all weathers irrespective of launch etc.
  - (d) The most severe weather during the winter months is from the S.W. to S.E. and the site being on the south side of harbour is consequently protected.
  - other would affect the best anchorage in the Harbour for large vessels and for manoeuvring alongside the hulks. Should the slipway be to the west of the Dock-yard Jetty then certain of the Whalers would have to be moored to the east of the Dockyard so hampering the movements of other shipping.
- Fairy Cove is the only possible site on the north shore and taken as a whole does not compare favouably with the Redmond Point site when the items "a"to "e" are taken into consideration as-
  - The available space for the erection of the necessary workshops, offices etc is very limited. The position viewed is midway between two high ridges of rocks the level space being about TOO yards wide, on this the main slipways would have to be built and also the side slips. This would require the works being extended farther on to the land.
- (b) The harbour at this point narrows and would not afford

afford sufficient sea-room to enable vessels to be squared up into position when being navigated on to slipway in order to meet slipway head on.

- (c) Difficulties in connection with the transport of workmen from Stanley.
  - (d) This site is protected from W.N.W. and E.N.E. winds. Generally during the winter months fine weather is anticipated with a W.N.W. wind.
  - (e) Owing to the cable having been laid across the harbour in the vicinity of the site, vessels could not be permitted to anchor within a radius of 50 yards from the cable, also sea-room must be left at approach to slipways, so greatly reducing the available anchorage for the fleet of Catchers.
- SOUNDINGS. With reference to soundings and borings there is little to choose between the sites as the extent of beach and depth of water at L.W. Springs is about the same.

  (See tracing herewith).

The soundings were taken at Full and Change, but under adverse circumstances owing to the wind on both days being in the wrong quarter to assure a correct L.W.S.tide.

Porings have been taken at various points on both beaches down to L.W.S. mark, without which extent of piling required Should it be thought advisable to go forward with this matter then appliances etc will be required to enable further borings to be made below L.W.S.Mark, without which extent of piling required for slipways cannot be ascertained.

5. PARTICULARS REQUIRED BY MESSRS FLANNERY, BAGALLAY and JOHNSON.

LTD. in their letter of the 24th November 1920 to Crown

Agents.

Reply to:

## Reply to:

- a. I7 feet at I50 yards high water springs.
- b. 6 feet springs. 4 feet range at neaps.
- c. I foot in 20 feet.
- d. Borings taken on beach. Foundation clay, shingle, with rock at 17-21 feet. Extent of beach 40 yards; total length of slipway at least 250 yards making 210 yards of slipway under water at all times. No borings have been take below L.W.S.Mark.
- e. Buildings of steel material to be imported, from the United Kingdom.
- f. No machinery of any sort in the Colony for ship repairing.

## conclusion.

In conclusion we fully realise the great advantage any dacking facilities would be to the various Whaling C Companies fishing in these Latitudes, also the advantage that the existence of such works in the Colony would give to Stanley, but we are unable to Strongly recommend that the provision for the sighting of the bottoms of ships be a slipway. The objection to a slipway being, that the dead weight of the vessel would have to be carried on about 200 yards of slipway which would be unseen at all times. Again, irrespective of the above mentioned difficulty, we consider that the period of tome for the repair and overhaul of 30 whale catchers is not sufficient to enable any guarantee to be given to the Whaling Companies that their vessels would be completed in time for the season.

#### <u>-IO-</u>

Also the difficulty as to occupation for the large staff, which would have to be maintained during the period when the slipway and works would not be required.

Should it still be thought advantageous to provide facilities for docking then we would suggest that attention be given to the construction of a graving dock in place of a slipway.

RBB aseley. A.M.I.Mech. E.

Colonial Engineer.

Colin Deckly. Master Mariner.

Harbour Master.



From: The Colonial Socretary.

To: The Crown Agents for the Colonies.

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Dispatched: 11. 40 a.m. on 11th Harch, 1921.

With reference to your telegram of 2nd December, high water spring mark depth 17 feet at 150 yards, 21 feet at 200 yards (stop) spring tides sin feet 4 feet range (stop) slope beach 1 ft in twenty. Foundation beach clay 0 feet shingle 11 ft then rock (stop) No borings taken below how water springs. Are they required? There is difficulty in quarrying stone for building good stone obtainable for concrete:no local brick: no machine tools. Secretary.

UNWREATH TOCITES SPRING MARK DEPTH FIREBOX AT TREMOLITE
FIREBRANDS FIRCONE AT TREPANNING SILVERGOD SHEPSTER
FIREBASKET FIREBARREL RANGE NEAPS SILVERGOD SLOPE BEACH
FIRCONE IN TWENTY FOUNDATION BEACH CLAY FIREBELT SHINGLE
FIREBLOCK THEN ROCK SILVERGOD NO BORINGS TAKEN BELOW
TODDLEKIN SPRINGS REQUINTONE, SUBTERRENE DIFICASTOR
QUARRYING STONE FOR BUILDING GOOD STONE OBTAINABLE FOR
CONCRETE NO LOCAL BRICK NO MACHINE TOOLS. SECRETARY/

88420

No. 886/20.

(It is requested that, in any referonce to this letter, the above Number and the date may be quoted). THE OFFICE OF THE COLONIAL SECRETARY,
STANLEY, FALKLAND ISLANDS,

11th March, 1920.

The Colonial Secretary of the Falkland Islands has the honour to inform the Crown Agents for the Colonies that he is this day sending to them the following telegram:—

Dispatched: 11. 40 a.m. on the 11th Harch, 1921.

UNIVERSITY TOOTES STRING HARE DEFINE FIREBOX AT TRESOLITE
FIREBARREL PARCE TOLDES SILVERGOD SACRETER LINGUAGET
FIREBARREL RANGE TOLDES SILVERGOD SLOPE BEACH DISCOME THE
TWENTY SILVERGOD FOUNDATION BEACH GIAY FIREBETE SATINGLE
FIREBLOCK THEN ROCK SILVERGOD NO BOATINGS TAKEN DEBOT
TOTTLEKTE SPRINGS REQUIRED SILVERGOD SUBTERRED DIFTCASTOR
CUARRYING STONE FOR FUILDING GOOD STONE OBTAINABLE FOR CONCRET
NO LOCAL BRICK NO MICHIEL TOOLS. SECRETARY.

with reference to your tolegram of 2nd December, high water spring mark depth 17 feet at 150 yards, 21 feet at 200 yards (stop) spring tides alm feet 4 feet range nears (stop) slope beach 1 ft in twenty (stop) foundation beach clay 9 feet shingle 11 ft then rock (stop) no berings taken below low water springs. Are they required? There is difficulty in quarrying stone for building good stone obtainable for concrete: no local brick: no machine tools. Secretary.

THE CROWN AGENTS FOR THE COLONIES,
4 MILL BANK,

LONDON, S.W.

C.S. No.....

## MINUTE PAPER.

Depar	tmental	Number.
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From The Harbour Master.

Date 26th, March. 1921.

To The Hon. Vol. Secretary.

SUBJECT.

Proposed Slipway in Stanley Harbour.

Reference Numbers.

Sir,

I have to report that during the massing through Stanley of the returning Whaling Fleet I have made inquiries from the Cantain's of the Factories and have elicited the fact that the catchers when being docked in Montevideo have a draft of 6 to 7 feet.

I would suggest that the fact that 12 feet was given as a basis upon which to work in connection with the construction of a slinway in Stanley, is, in the event of a catcher receiving an injury, prior to arrival at this port, not being able to be lightened before being placed on the Slipway.

Should this not bethe case, then working on the basis draft of 7 feet, it would reduce the length of proposed slipway about 90 yards, thus leaving 120 yards instead of 210 yards, at all times unseen, as reported in the report of 2nd March 1921.

I am, Sir,

Your obedient Servant,

Colin Decorly.

2/1/17.

# TELEGRAM.

From: The Governor.

To:

British Minieter, Monte Video.

Dispatched:

9th April,

1921. Time. 1.15 p.m.

Received:

19 Time.

REPRURICAT ASCERTAIN TORDPIED DRAFTBOXES WHALE CATCHERS WHEN DOCKED MONOGRAFU REMUDACID. GOVERNOR.

Request that you will be good enough to ascertain what is draft of whale catchers when docked Monte Video. Telegraph reply.

# TELEGRAM.

From: The Evitish Minister, Nonte Video.

To: The Governor.

With reference to your telegram of the 9th April, dusft of Whelers 11 feet.

# Copied from original telegram sheet.

H. C. S.

Will you please let Colonial Engineer and Harbour Master see this.

(intd) J. M. 12th Amril, 1921.

4

Falkland Is.1447

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES.
THE ABOVE REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED

TELEGRAMS. "CROWN, LONDON."

TELEPHONE 7730 VICTORIA





4 MILLBANK,

WESTMINSTER.

LONDON, S.W. 1.

50th. December 1920.

## Falkland Islands Reon.No.1447

Sir,

I have the honour to refer to your t legram of the 19th. Describer on the subject of the proposed installation of a slipway and workshop at Port Stanley.

2. You mention that "owing to illness of the Colonial Engineer work cannot be commenced but work will be commenced at the earliest possible date". We understand this telegram to mean that the work entailed in answering the questions embodied in our telegram of the 2nd. December cannot be commenced until the Colonial Engineer has recovered from his illness.

I have the honour to be, Sir.

Your obadient servant,

for Crown Agents.

The Hon'ble,
The Colonial Secretary,
Falkland Islands.

131 W. Falkland Is.1447

22-11-21

Plan

ALL COMMUNICATIONS TO BE ADDRESSED TO THE CROWN AGENTS FOR THE COLONIES. THE ABOVE REFERENCE AND THE DATE OF THIS LETTER BEING QUOTED.

> TELEGRAMS, "CROWN, LONDON." TELEPHONE, 7730 VICTORIA.





WESTMINSTER,

LONDON. S.W. 1.

7th December, 1921.

## Falkland Is. Requisition No. 1447

Sir,

With reference to our letter of the 30th December of last year, No. 128, I have the honour to enclose a copy of a report received from our Consulting Naval Architects, together with the plan referred to therein, in connection with the slipway and workshop proposed to be installed in the Falkland Islands.

If it is decided to proceed further with the scheme, you will no doubt furnish us with the detailed information referred to in the last paragraph of the Consulting Naval Architects' letter.

I have the honour to be.

Sir,

SPARE OF THE COURSE PRODUCE FOLIANCE LINE TO SELECT AN ADDRESS.

Your obedient Servant,

for Crown Agents.

and taking the seight at any part of the courte requiring secural

Wollaton

The Colonial Secretary,

Falkland Islands.

COPY

Messrs. Flannery Baggallay & Johnson to Crown Agents (Chief Engineer).

9, Fenchurch Street, E.C.3

22nd November, 1921.

#### Falkland Is. 1447/1.

Sir,

In further reference to your letter of 28th ultimo, we now beg to enclose herewith general arrangement plan indicating the proposed slipway and workshops indented for under this requisition.

In designing the above we have been guided by the information set forth in the copy of telegram addressed to the Crown Agents for the Colonies by the Colonial Secretary, Falkland Islands, dated 11th March last, and as enclosed in your letter of 18th March last.

Slipway: The rise and fall at spring tides is only six feet and at neaps it is less, being only four feet, so that the work of constructing the foundations under water, and upon which the slip will be constructed, will be more expensive than would be the case if the rise and fall of water was sufficient to expose the outer end of the slip at low tide springs, as is the case in the majority of slipways.

The length of permanent way necessary for taking drifters on at high water neap tides and hauling same clear of high water spring tides is about 440 feet and the total length of cradle amounts to 96 feet when same is lowered to bottom of slip but when drawn up and taking vessels weight the length of cradle for supporting the vessel is 120 feet, this arrangement admits of the forward end of the vessel taking the cradle when low down the slip and saves a little in the construction of the permanent way; the cradles can also be adjusted to take vessels up to 150 feet long and taking the weight at any part of the length requiring special support.

In view of the weights of vessels to be dealt with not exceeding about 250 tons, it would not appear necessary to go to the expense of piling the foreshore which is of clay 9 feet deep on top of shingle and rock, in any case the outer end would not require piling as the full weight of the vessel would not be on the cradle until she was well out of water.

The permanent way would be of ferro-concrete throughout to guard against damage by the Teredo worm which is to be contended with in these waters.

The cradle would be of pitch pine creosoted, and built upon channel section steel girders as same would be generally clear of the water and not subject to damage by the Feredo worm and it could also be hauled up for cleaning and painting when required.

The estimated cost of the slipway, as per plan and description above, is £7,000.0.0d., this includes all parts temporarily erected in the contractors works, together with hauling gear and on completion to be properly marked, dismantled and packed for shipment. The above estimate does not include any sum for piling, if this is found necessary, nor does it include the erection of the slip at the site, these being matters requiring special consideration in the Colony and necessitate special examination of the site to enable an estimate of cost of laying down the slip to be prepared with any degree of accuracy.

#### Workshop :-

It is not clear from the information before us whether it is intended to build the actual shop itself in the Colony, or whether it is desired to send out materials from this country. We would mention that in view of the severity of the climate in winter the construction of a steel building, in corrugated sheets, might not be considered suitable and that a brick built building would perhaps be more suitable. In the event of a galvanized steel building being considered suitable, the necessary corrugated sheets together with roof principals and steel framing could be sent out

from this country, alternatively, if a brick or concrete building is preferred the materials for same would, we assume, be obtainable in the Colony and so save the cost of transport from this country.

As regards machine tools the following list would, we think, enable any ordinary overhauling to be dealt with on vessels of the "Wheler" or "Cateliro" type :-

One 12" centres lathe capable of taking about 10'0" to 12'0" between centres, with a good gap, packing pieces for headstocks and usual screw cutting and slide surfacing gear.

One  $7\frac{1}{3}$  centres lathe to take about 6 feet between centres, having good gap and usual screw cutting and slide surfacing gear.

One planing machine with table 8 feet by 3 feet and 3 feet heights. Quick return gearing and all gears machine cut.

One double geared shaping machine with a stroke of about 18 inches, fitted with table about 15" by 12" and having vertical and transverse movements.

Radial drilling machine with 4 feet arm raised and lowered on strong centre column and fitted for wide range of spindle speeds.

Small sensitive drilling machine, four spindle speeds, ball journal and thrust bearing, fast and loose pulleys and table with good vertical and swivelling gear.

Screwing machine for pipes up to 4 inches and bolts and nuts up to 2". Fitted with 2 speed pulleys, hollow spindle and die head and other details.

Milling machine with swivelling, table about 36" x 12" and 24" longitudinal feed  $7\frac{1}{2}$ " transverse feed and about 18" vertical adjustment, feed charges, dividing head and machine cut gear wheels.

Slotting

Slotting machine 12 inches stroke with about 24 inches diameter table, longitudinal transverse traverses, four speed pulley and machine cut gears.

Marking off table about 8 feet by 4 feet finished to limit gauges.

Three swivelling hand jib cranes two for machine shop and one for foundry, each capable of dealing with one ton lifts at a maximum of 12'6 radius.

Boring bar and gear for dealing with cylinders up to about 48" diameter.

Some of the above machines might be considered unnecessary by the colonial authorities, at the same time we are of opinion that when fitting out a shop for the repair of marine machinery, all these tools will be found very useful and generally very necessary, and set out below the approximate price of each machine for the guidance of the colonial authorities:

One 12" Centres lathe	£500
One $7^{\frac{1}{2}}$ " "	150
One Planing machine	400
One Shaping "	225
One 4 ft. radial drilling machine	650
Small sensitive drilling machine	30
Screwing Machine	175
Milling "	150
Slotting "	300
Marking off Table	60
Three hand jib cranes	300
Boring bar and gear for cylinders and	180
Vices and other head tools, say	200
Portable Acetylene Welding Plant	175
Total	23495

As regards the brass foundry this is proposed to be suitable for dealing with castings up to about 4 cwt. in weight, this weight is rather in excess of the generality of brass castings to be contended with on Whalers, but it enables a number of items to be included in one cast which is an economy. There is also a further consideration such as the replacing of rather heavy iron castings which could in emergency be cast in brass, this of course being a rather more expensive metal, at the same time it would be much cheaper uptimately than sending a long distance incurring heavy freight for the replace part, in addition, perhaps to keeping a valuable vessel lying up until receipt of the article required, probably from the country where the vessel was originally built.

Our estimate for the foundry equipped, is approximately £600.0.0., this including moulding boxes, crucibles, harness tongs, moulding bins, core oven fittings and two crucible furnaces capable of dealing with about 4 cwt. in two fires. A supply of moulders tools would also require to be sent out and their cost is included in the above estimate.

No power is included for driving the machine tools in workshop and we have no information before us as to whether electric power will be available from a local power station for the purpose or not, if so this should prove the most convenient, and we estimate that about 40 Horse power would be required for the whole shop and such a motor with the necessary overhead counter shafting, pulleys, belts, change wheels etc., would cost approximately £400.0.0.

The above figures summarised would give the following approximate total cost of slipway, workshop and foundry equipment delivered f.o.b. in this country.

Slipway approximate cost£7,	,000
Workshop equipment and motor 3;	895
Foundry equipment	600
Total say	495.

On receipt of more detailed information we would be glad of your instructions to prepare specification for obtaining tenders for the supply.

We respectfully recommend that on receipt of more detailed information and the approval generally of the plan herewith, a specification be prepared and issued to firms for tendering upon, subject to your approval, meantime we await your further instructions.

Your obedient Servants,

FLANNERY BAGGALLAY & JOHNSON LIMITED.

(Intld.) A.E.P.

(2)

#### February 16th

Dear Governor,

I have had copies made of what I have recently written to the Directors of the Company as regards slip, and send one herewith, together with plan drawn up by Mr Roberts of the soundings taken. I thought that perhaps you would like to look at these at your leisure before seeing Mr Roberts and myself. Mr Roberts has copies on this plan the soundings at Fairy Cove and Redmond Point to enable a comparison to be made as to the suitability of each.

If you would let me know later when you could conveniently see us I should be very grateful.

Yours sincerely,

His Excellency

The Governor.

Melleced uy

A.C.S. When you have Whed though then heper I shall away a muting with her thursing a Capellant arasich I should lite you with primes apo let Inquien Dr. 16 hor 422 Colonial Manager to Head Office, London, 31st Cotober, 1921.

"After considering the question of the slip from every point of view Mr Roberts strongly advocates the simple platform of hard wood framing, and double wooden cradle for hauling up - in fact, practically the same as designed in plan No. 158. This plan was forwarded to you originally in 1912, despatch 417/4, and for convenience of reference a copy of the paragraph is sent herewith. This would be the least expensive form of a slip, besides being quite as effective as an elaborate design involving rails, wheels and iron castings for cradle mountings. So far as I understand the slip at Punta Arenas is still worked on this principle, and the slip which Mr Roberts saw at Montevidec is quite similar though possibly simpler, as there is not even any cement filling between the wooden framing. Mr Gresham saw one at South Georgia constructed on the same principle, and there is a small one at Bahia Blanca of similar design.

A further advantage of this plan is that you can build it either as small or as large as you like, and, by using leading blocks, haul up as many vessels as it will accommodate to any position required. No skilled labour need be imported, and heavy expense for rails and ironwork and experts' fees would be obviated."

Colonial Manager to Head Office, London, 18th January, 1922.

"I enclose a memorandum on the subject of Slip drawn up by Mr Moberts and myself. The size and strength of construction depend of course upon the expected ultimate development. If the object is to secure the business of slipping, and repairing if necessary, the fleet of whale catchers, the slip should be designed accordingly. We might construct now a light slip capable of dealing with the lighters and the tug, and such a slip would not be too expensive, but should the business of slipping whale catchers eventuate, this light

slip would not be strong enough to carry the weight and might have to be scrapped altogether. The point to be decided is therefore whether the Directors will go to the expense in the first instance of constructing sufficiently strongly to take the heavier weight and capable of extension for the deeper draft.

As regards concrete walls instead of timber ways, there is no doubt that the former would be preferable, but the cost is bound to be higher, for a considerable amount of timber and labour would be required for coffer dams. The question of winding gear can be left until later for decision."

The most suitable firm site from all points of view that we have been able to find is about midway between the slaughter house and the leading marks, that is, the line drawn on the chart of Stanley showing track through the Narrows. In selecting the site the points considered were the greatest possible gradient coupled with nature of beach and level and general character of land at the head of the proposed slip. At the point selected the bottom is small stones overlying stiff clay.

A line of soundings was taken every 20 feet in a true North direction perpendicular to beach as per diagram attached.

As these were taken at Low water neaps it will be necessary to sound again at high water ordinary springs in order to ascertain the shortest possible length of underwater section for whatever draft of vessel it is finally proposed to deal with.

Soundings were taken to a distance of 540 feet from approximate low water mark giving a mean gradient of 1 in 25 for 500 feet; for the first 100 feet from the beach the gradient is 1 in 21, but over the first 200 feet the mean gradient is 1 in 22. For practical working purposes a minimum of 3 feet should be added to the soundings given until an opportunity occurs of taking proper H.W.O.S. soundings, which can then be reduced to L.W.O.S.

A generous allowance must be made for the rise and range of the tides when estimating for the required depth of water at the outer **xf** end of the slip, for otherwise a fortnight may be lost waiting for sufficient water for hauling op the craft.

The latest proposed plan G.S.D. 50/51 does not appear to be ambitious enough as regards the draft and displacement weight of craft to be dealt with, even ruling out of the question for the time being a vessel of the size of s.s. "Falkland".

It is suggested that a greater weight and deeper draft should be allowed for as the lighters, the smaller hulks and the schooners "Gwendolin" and "Lafonia" should really be inspected every year or so.

Even though for financial reasons it may not at present be possible to construct a slip capable of dealing with vessels drawing say 11 feet of water, it would be desirable to plan it in such a way as to permit in the future of its being extended to take vessels of that draft without having at first to take up the outer section already laid down. If you have this object in view the slip should at the outset be capable of carrying the greater weight of such vessels. This contingency does not seem to have been allowed for in the latest plans, and would form one objection to the rail and carriage slipway, more especially if the slipping of whale catchers which weigh probably about 400 tons is contemplated.. Furthermore, if it is proposed to cater for the fleet of whale catchers arrangements would have to be made for 4 or 5 to be up at the same time. Possibly the consulting engineermay have some scheme by which the noveable cradles can be run on to side rails to the right and left of the wain slipway without great additional expense.

If the main o ject is to secure the whale catchers business and the above scheme of side rails is not practicable, the only alternative would be hauling up the vessels on skids on a grid slipway without rails as is done in Montevideo and Punta Arenas.

It is freely admitted that the rail and roller type would be the easiest to work as entailing far less hand or mechanical power for hauling up and down, and would probably be quicker to construct.

The cost will depend largely upon how many vessels are dealt with - if you have to deal with 5 whale catchers simultaneously a greater land area would be required above the slipway entailing considerably more excavation.

The question is one of what are the ultimate requirements and what the future development may be expected. It must be noted that it is doubtful whether there is sufficient room on the site selected for a second larger slip to be constructed alongside the first if such were eventually required.

As regards the landward end the necessary excavations are estimated roughly as follows:-

For a slip taking one vessel only,

For slip with side rails taking 5

vessels at a time of 20 ft beam

each, allowing 20 feet between

each craft for working,

For a grid slipway hauling vessels

up on skids.

670 cubic mids.

4450 cubic yds.

9400 cubic yds

One man should excavate from 5 to 8 cubic yards per day according to the nature of the earth. The cost might be taken at say 1/6 per cubic yard, plus another 6d for wheeling and certing away.

Stanley,

Falkland Islands,
16th January, 1922.

Note

She Sovering his despeted ho to g 18 2 hours of (See reference in Confider 2 march 198 in 30. C 20/18)

hopema the facilities should be appear to whole and
suggested

(a) Dock (Man is on MS note "slep" Capable of

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muling on 25th april 1922.

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M. C. S. Bascley alderical Ingenier
M. C. S. Holly Harber Minter
S. S. Ribert Snuria Superiorder
Fallend Rends Compay.

The falklend Island Company has some acquired the share of the falklend blands Therefore to in the S.S. Falklend and with a visit to reducing our of promoney the vigne his trading has going considerable to construction gastif as strong which considerable could take S.S. Bulklend and advo curches simplyed in whiley industry.

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3. S.S. Frekland has be go to Front hideo a barrior to the sure on the state of the

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Mille arrangements for repairing ship are

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for harding rights up in skies comed

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trinber (c.1.5.) was someoned as £2800.

The Revers sold the 6 to 10 repos could be suffer such months devicing words scan

4. In a great slif way about 5 acres of land amed be required fromby tring 120 yard & apt 200 yard.

I has suggested to his trending that a leave of 21 years showed to four up to assertion

as the Land adding once request that Should it Inde a condition that the Slip should it communet within live years from det y lane. Is Robert Stated that he thought the two summer Susar would be aguina for construction Jelf. Is Anding said the h has no definite information is to the Excel Millentinis of the Director of the 1 6 hus thy he without a & Communicate with them 12 In il leaving saily in may a would ask for a rupey by Milyson 26 afril 412

11/20



April 28th, 1922.

Dear Governor,

Before writing to the Directors on the subject of slip could I be informed of the exact conditions of the lease or purchase of the site?

If a lease is put up to auction, we might as well ask for 5 acres, but if it is purchase outright, 3 acres would suffice. Then there is the question as to whether the Government intends to stipulate that the slip must be of a certain size or capacity.

Could you spare a little time to see me this morning or afternoon about this?

Yours sincerely,

His Excellency

The Governor,

Month holio (\$70)
350 dillars for handling cataland.
Slip: 14 days or slip a launching.
The change due un en cloud any labore.

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Mularduy

I saw W. Harding about the letter on 28 april . h. dea not-Mels quarting and of site: he agreed the a leave for assisted hom then 21 years, say to year, with often of purchas amen 2. Some the multing which in her sailer in the week to have for fulle vito questing commercial offer g slip capalle of their Frehland + Careties: he had doubt a 15 it being frith & Inde it pay specially dury & weather centilion during winter month: weather world make repain auch difficult as lines until shella an privilea. 3. Charge for actual slepping as hout beder as not high: he Vilewia they wer 350 dellas (say \$ 40) for hauting up cathe Un of slif for 14 days to laterating: he has no information as & charge for repairs: weather andinin any aun non purduall then as stunding. 4. With regard to capacity of slip I Med him the it was Inceprary the it should take as lease 4 carehers on a lim Mark that the us it member contemplate by at myonice +Hurban mada. 1. In Buding wifend to repur fully to Dieles of Il 6 18h 30 april 422



Dear Governor,

In writing to our Directors on the question of slip I should like to be able to quote as accurately as possible what you told me last week. May I give them the following as a resume of what you said to me?

For years past the Colonial Office have wished a slip to be constructed in Stanley which would enable the whaling companies to slip their catchers here instead of having to go to Montevideo. The war intervened, and the matter is again under consideration. Then you came to me and said that your company wished to build a slip, and with our concurrence your Superintendent took soundings to fix upon a suitable site of which you have shown me the plan. There is not room for two slips, and I felt that if your company would construct one, I should be prepared to recommend that the Government stand aside; we should require a large staff to cope with the work, and these men would be idle during the summer months. Since then, you tell me that your company have purchased the steamer Falkland, and that your Directors consider that the slip project should be proceeded with.

As regards the site it is necessary to act in accordance with the provisions of the Land Ordinance of 1903 and if you wish to sewure the site chosen, the Government would put up to auction a lease of the same - the lease would be for ten years with the option of purchase at the expiration. The land being within two miles of the cathedral is "Town land" within the meaning of the Ordinance. The condition attaching to the lease would be that a slip shall be constructed on the land within two

His Excellency

The Governor.

years, and that it shall be capable of hauling up four whaling catchers at the same time.

I feel that it is most essential that I should give the Directors an accurate report of what you told me, and hope that you will not mind looking over the above and telling me if I am correct in sending this home to them.

Yours sincerely,

Millarding

I enclose a carbon copy - if there are any corrections

H.PS.

I have represent care esper of the letter to he Handing with amendment a above regarding (50) number of caseles + I have endone on the copy comprised.

would you perhaps note them on the copy ?

M. 2 may 422



THE FALKLAND ISLANDS COMPANY, LIMITED.

STANLEY, 17th July, 1922.

Sir,

With reference to the interviews His Excellency has been good enough to accord me on the question of the construction of a slipway by this Company, I beg to inform you that I received the following telegram yesterday:-

"Board unwilling to proceed immediately slipway"

"pending improvement in financial outlook.Convey"

"Governor Board's thanks for co-operation".

I shall be obliged if you will kindly convey
the above information to His Excellency with an expression
of my sincere thanks for his courtesy in sacrificing so
much time for the discussion of the matter with me.

I am,

Sir,

Your obedient servant,

Manager.

The Honourable

The COLONIAL SECRETARY.

STANLEY.

# From His Excellency the Governor



to The Honourable the Colonial Secretary.

M. P. & despering of 32m hay 422 about Dynamic shows
8982! Ni cur of Connae auninistration I of sha this

freprod for commedia of a stiperay as Post Stanly
us a state hay frepre frames.

2. Postrin ha Mr. astria by soft repet to about desperse

hur a represe with no doubt he repeter. In has

Minimum with no bracing or Capacin Reserve on the

subject that I do me weather above done again than

The

July 17th, 1922.

Dear Governor,

I have written to the Colonial Secretary reporting the receipt of a telegram from London as follows:- "Board unwil-"ling to proceed immediately slipway pending improvement "financial outlook. Convey Governor Board's thanks for "co-operation". I had to point out to the Directors that the cost was likely to far exceed the estimate formed by the Secretary of the Company, and in view of the fact that we must face heavy expenditure on the Farm if efficiency is to be maintained, they have come to the conclusion that the present is not the time to risk capital on a slip.

I have another telegram from Valparaiso as follows:"Thursday. Bogota leaves England to-morrow calling
"your port. Can receive cargo as per your letter. Melegraph
"confirmation. Pacific".

This rather indicates that the PSNC were unable to send the Ortega away on July 13th as per time table, and have substituted the Bogota. They propose to ship produce from here by her as in the case of the Ballena - this will possibly be out last chance of getting the remainder of wool and tallow home, and we shall probably have to send the Falkland round once more to ensure getting it all to Stanley for the Bogota.

Yours sincerely,

Millerduig

His Excellency

The Governor.

(9)

FAIKLAND ISLANDS. Ho. 52.

GOVERNMENT HOUSE, STANLEY, 18th April, 1925.

Hy Lord Duko,

Companies and other Whaling Companies operating at the South Shetlands, in reply to an enquiry which was addressed to them in 1918, expressed the view that it would be greatly to their advantage if facilities could be afforded at Stanley for the repair of their "cetchers". With this object in view it was suggested, at the time, that a "slipway to take a vessel up to 200 tons weight" and a small workshop should be constructed and should be managed by the Colonial Government. This project has not been carried out and in the form proposed would not meet the requirements of the whaling industry.

2. For the present whaling season 35
"catchers" have been licensed to operate at the
South Shetlands and 25 at South Georgia and the
South Orkneys. It has been pointed out in
previous correspondence that the "catchers" operating at the South Shetlands, as a rule, are slipped
and repaired at Monte Video while in some cases

when/

HIS GRACE THE DUKE OF DEVONSHIRE,

P.C., K.G., G.C.H.G., G.C.V.O.,

when large repairs are required they return to Horway.

At South Georgia there are two private clips and

workshops for repairing "catchers" but the weather

conditions, there, are even less favourable to the

expeditious execution of outdoor work than at Stanley

where they are admittedly uncertain.

- 3. A slipway and workshops at Stanley would afford facilities for the repair of "catchers" in close proximity to the whaling field and would prove of material benefit to the whaling industry. Thore is a good prospect that if the workshops were equipped with modern machinery and were under capable expert management not only the large majority of the South Shetlands "catchers" but also a number from South Georgia would tako advantage of the facilities offered. I am strongly of opinion, however, that such an undertaking could not be either oconomically or efficiently amaged by the Colonial Government and I am unable to support the view which has been put forward, previously, that it would be of "immense value" to the Colony.
  - 4. I have the honour, therefore, to recommend for Your Grace's favourable consideration that the Norwegian Union of Whaling Companies should be invited to undertake the construction and management of a slipway and workshops fully equipped with the machinery required for overhauling vessels of the "catcher" type and that the Union should be afforded assistance from Dependencies' funds to meet the initial capital expenditure. As a basis for discussion of the project with the Union, I suggest the conditions which are outlined in Enclosure I to this despatch.

End!

1.

Enclosure II.

Enclosure III.

on the south and north shores of the harbour, are discussed in paragraph 4 of the accompanying report by Mr. R. B. Baseley, Colonial Engineer, and Mr. C. E. Hockly, Harbour Haster, and the soundings taken are shewn on the tracings attached to the report. The suggested site at Redmond Point is marked "A" on the Chart of Stanley Marbour, which is forwarded with this despetch. There is however a greater depth of water at the point marked "B" on the chart. This site has been examined by Captain D. Roberts, Marine Superintendent of the Falkland Islands Company, and an extract from his report on it is attached.

6. I should explain that the Falkland Islands
Company have had under consideration proposals for the
construction of a slipway for their own use. I
suggested to Mr. W. A. Harding, the Manager of the
Company, that in connection with the slipway which the
Company proposed to construct the question of the repair
of the "catchers" employed in the whaling industry
should also be considered but the Company is unable
to proceed with the scheme at the present time.

I have the honour to be,

My Lord Duke,

Your Grace's most obedient,

humble servant,

In Middleton.
244/pril 1423

ENCLOSURE NO. I TO FALKLAND ISLANDS DESPATCH NO. 52 of the 18th of April, 1923.

> The Colonial Government will grant free of rent to the Norwegian Union of Whaling Companies a lease for a period of 21 years of 5 acres of land in Stanley Harbour.

- 2. The Union will within two years construct a main slipway, with side slips, and workshops for the repair of vessels of the "catcher" type and will equip the workshops with suitable machinery. The plans for the slipway and the equipment for the workshops will be subject to the approval of the Government.
- 3. The Government will contribute one half of the initial capital expenditure incurred not exceeding a maximum of £25,000.
- 4. The Government will approach the Admiralty with a view to the purchase of the coal shed at the Naval Depot which is no longer used and which would be suitable for re-erection as workshops.
- 5. The Union will be responsible for the management and working of the undertaking and will have full power to appoint their own staff.
- 6. The Union will be permitted to maintain a limited number of spare "catchers" to replace those requiring extensive repairs in order that such repairs, may, in some cases, be carried out during the summer season, when weather conditions are more favourable to outdoor work and in order that employment may be provided for the staff of the works during the whaling season.
- 7. The Union will carry out work for the Government and the public on terms not less favourable than those given to "catchers".

Plan attached.

- 8. The undertaking will be liable for the payment of such rates and taxes as may be imposed on other business enterprises.
- 9. Books of account in respect of the undertaking will be kept by the Union and proper entries made of all receipts, payments, transactions and property and the books will be open to inspection, at any time, by an officer appointed by the Government.
- 10. Within three months from the 31st December in every year a general account will be rendered to the Government of all receipts, payments and transactions during the preceding year and of all the capital, property, engagements and liabilities of the undertaking.
- 11. The Government and the Union will share equally the net profits, if any, of the undertaking.
- 12. At the expiry of the period of 21 years it will be open to the Government and the Union to renew the agreement for the working of the undertaking for a further period.
- after 21 years or if at any time during that period the Union discontinues the working of the undertaking for three months the Government will have the right either to purchase the interest of the Union in the undertaking on payment of one half of the then value of the works and plant, allowance being made for depreciation at the rate of 5 per cent a year, or to take over any part of the works or plant to the value of the amount contributed by the Government towards the initial expenditure.
- 14. The Government will have the right in an emergency either to take over or to control the undertaking. In the event of the undertaking being taken over one half of the net profits will be paid to the Union but the Union will not be entitled to any compensation for disturbance.

# MMCLOSURE NO. III TO FALKLAND ISLANDS DESPATCH NO. 52 of the 18th of April, 1923.

The most suitable site from all points of view that we have been able to find is about midway between the slaughter house and the leading marks, that is, the line drawn on the chart of Stanley showing track through the Marrows. In selecting the site the points considered were the greatest possible gradient coupled with nature of beach and level and general character of land at the head of the proposed slip. At the point selected the bottom is small stones overlying stiff clay.

A line of soundings was taken every 20 feet in a true Morth direction perpendicular to beach as per diagram attached.

As these were taken at Low water neaps it will be necessary to sound again at high water ordinary springs in order to ascertain the shortest possible length of underwater section for whatever draft of vessel it is finally proposed to deal with.

soundings were taken to a distance of 540 feet from approximate low water mark giving a mean gradient of 1 in 25 for 500 feet; for the first 100 feet from the beach the gradient is 1 in 21, but over the first 200 feet the mean gradient is 1 in 22. For practical working purposes a minimum of 3 feet should be added to the soundings given until an opportunity occurs of taking proper H.W.O.S. soundings, which can then be reduced to L.W.O.S.

A generous allowance must be made for the rise and range of the tides when estimating for the required depth/

End

depth of water at the outer end of the slip, for otherwise a fortulght may be lost waiting for sufficient water for hauling up the craft.

The latest proposed plan G.S.D. 50/51 does not appear to be embitious enough as regards the draft and displacement weight of craft to be dealt with, even ruling out of the question for the time being a vessel of the size of s.s. "Falkland".

It is suggested that a greater weight and deeper draft should be allowed for as the lighters, the smaller hulks and the schooners "Gwendolin" and "Lafonia" should really be inspected every year or so.

Even though for financial reasons it may not at present be possible to construct a slip capable of dealing with vessels drawing say il foet of water, it would be desirable to plan it in such a way as to permit in the future of its being extended to take vessels of that draft without having at first to take up the outer section already laid down. If you have this object in view the slip should at the outset be capable of carrying the greater weight of such vessels. contingency does not seem to have been allowed for in the latest plans, and would form one objection to the rail and carriago alloway, more especially if the slipping of whale catchers which weigh probably about 400 tons is contemplated. Furthermore, 1f it is proposed to cater for the floot of whale catchers arrangements would have to be made for 4 or 5 to be up at the same time. Possibly the consulting engineer may have some scheme by which the moveable cradles can be run oh to side rails to the right and left of the main slipway without great additional expense.



If the main object is to secure the whale catchers business and the above scheme of side rails is not practicable, the only alternative would be hauling up the vessels on skids on a grid slipway without rails as is done in Mentevidee and Punta Arenas.

It is freely admitted that the rail and roller type would be the easiest to work as entailing for less hand or mechanical power for hauling up and down, and would probably be quicker to construct.

The cost will depend largely upon how many vessels are dealt with - if you have to deal with 5 whale catchers simultaneously a greater land area would be required above the slipway entailing considerably more excavation.

The question is one of what are the ultimate requirements and what future development may be expected. It must be noted that it is doubtful whether there is sufficient room on the site selected for a second larger slip to be constructed alongside the first if such were eventually required.

As regards the landward end the necessary excavations are estimated roughly as follows:

For a clip taking one vessel only,

670 cubic yds.

For slip with side rails taking 5 vessels at a time of 20 ft beam each, allowing 20 feet between each craft for working,

4450 cubic yds.

For a grid slipway hauling vescels up on skids,

9400 cubic yds.

One man should excavate from 5 to 8 cubic yards per day according to the nature of the earth. The cost might be taken at say 1/6 per cubic yard, plus enother 6d for wheeling and carting away.

Stanley,

Falkland Islands,

16th January, 1922.

23,

3.23575 23 DEC 1926

W/Falks. 1447.

22nd December, 1926.

Sir,

With reference to your letter of the 17th November, 1920, No. 41962/1920 and its enclosures, and to subsequent correspondence, I have the honour to enclose a copy of account received from Messrs. Flannery, Baggallay & Johnson, amounting to £78. 15. Od., being their fees in connection with advice rendered on the proposal to instal a slipway at Stanley.

2. We consider, in view of the services rendered by Messrs. Flannery, Baggallay & Johnson in this matter, that the amount of fee asked for is fair and reasonable. We shall be glad to receive the Secretary of State's sanction to pay the account.

I have the honour to be,

Your obedient Servent,

(Sd.) W. A. F. Wickhart

for Crown Agents.

The Under Secretary of State,
Colonial Office,
S.W.1.

percently and amountains further hala once

WE

Copy.

22.

# FLANNERY, BAGGALLAY & JOHNSON, LTD.,

9. FENCHURCH STREET,

& 2 & 3, PHILPOT LANE,

LONDON, E.C. 3.

17th December, 1926.

#### Messrs The Crown Agents for Colonies

#### Drs to

Flannery Baggallay and Johnson Ltd.

Falkland Isles 1447/1.

1920.

Sept. 30th TO

and

subse-

quently

to

1924

August.

perusing and annotating letter from the Crown Agents together with Copy of Correspondence from the Colony upon the subject of proposed Workshop and Slipway for use at Port Stanley.

conferring with the Crown Agents and advising on further data to be obtained from the Colony for use in preparing Report to the Crown Agents upon estimates of cost and time of delivery and other points submitted to us.

further correspondence and conference with Crown Agents, discussing the project with them in the light of later information received from the Colony; preparing various detailed Calculations and General arrangement Plan of Slipway and Workshop proposed.

reporting to the Crown Agents, in detail, with General arrangement Plan and our Recommendations and advice as to probable cost, extent of Tools required, and other details.

Conference with His Excellency the Governor of the Falkland Isles and discussing the matter with him and reporting further to the Crown Agents especially upon the question of docking R.R.S. "Discovery" and other ships.

receiving the Crown Agents instructions that a sub-Committee had been appointed to deal with the question of Slipway and arranging to attend same accordingly.

perusing and annotating further data submitted by Crown Agents in readiness for

meeting

meeting of sub-Committee as above named.

Attendance at meeting of sub-Committee under the Chairmanship of Rear-Admiral Glennie and conferring on various points arising in connection with the proposal and advising on technical details.

attendance at further meeting of sub-Committee which was also attended by the Manager of the Falkland Isles Company and their Engineer Adviser, and later conference with this gentleman at our office.

revising the whole of the Documents and Drawings and Minutes of the sub-Committee and preparing and issuing to the Crown Agents a detailed Report on the Workshop and Equipment, and Slipway, together with comparisons of proposals made by the Falkland Isles Company with those prepared by our Firm, and advising on the whole proposal generally.

For the above Services: -

£ 78 15 0

E. & O.E.

0/23575/26

Gentlemen,

I am directed by Ir. Secretary Amery to acknowledge the receipt of your letter of the 22nd December, 1925 (No.5/Falks. 1447), and to sutherize you to pay from the funds of the Dependencies of the Falkland Islands the account received from Letter. Flammery, Baggallay and Johnson, amounting to 278.15.0d., being their fees in connection with edvice rendered on the proposal to instal a slipway at Fort Stanley.

I am.

Gentlemen.

Your most obsdientporvent

(Bighed) A. Manyang Is

TER CROW MEETS FOR THE COLORLES.

24

25 FEB. 1927 ) AMI KLAND ISLAMS

Reference to previous correspondence :-

1

FALKLAND ISLANDS.

No. . 8.

DOWNING STREET,

19 January, 1927.

Sir, With reference to previous correspondence,

I have the honour to transmit to you then
for your information, copies of the
papers noted below on the subject of the proposed slipway at Port Stanley.

I have the honour to be, Sir,

Your most obedient, humble servant,

THE OFFICER ADMINISTERING
THE GOVERNMENT OF THE FALKLAND ISLANDS. L.S.AMERY.

Date. 1926.	Description.					
22 December.	From	the	Crown	Agents,	with	enclosure.
1927. 10 January	To			Do.		

# FALKLAND ISLANDS.

No. 28/1927

SPECIAL WARRANT.

Governor.

TO THE HONOURABLE

THE TREASURER.

Whereas it has become necessary, in the interests of the Public service, to incur certain Expenditure, not sufficiently provided for in the Estimates, as set forth in the subjoined Schedule, b in anticipation of a vote of the Legislatured and of the approval of the Secretary of State:-

You are hereby, on my personal responsibility, authorized and required to pay from the Treasury the sum of \_\_\_\_\_\_ Pounds Pence and to Shillings and

charge it to the Heads and Sub-heads of the Expenditure specified in the Schedule.

And for so doing, this, together with the proper Accounts, Certificates and Acquittances, shall be your sufficient warrant and discharge.

a. to remain only in

a. to remain only in case of an excess on a vote.

b to be struck ont if complete authority has been obtained or d if either partial authority has been obtained.

	Sche	đule.			
Particulars of Service.	To be cl				
	Head.	Sub-Head.	£	s.	d
Tees char ed by coors lamony, so gollay a Johnson in connection with advice rendered on proposal to instal clipson at Stanley.  Corosary of State's espatch to 8 of 1927.  L. F. 806/20.	II.	l. (Sen Item) Slipway.	7.5	lá	()

Signature of the Officer submitting the Schedule for Warrant.

September,

(Special warrants are to be prepared in triplicate. One copy to be filed in the Office of the Colonial Secretary, one in the Treasury, and one to be furnished to the Audit).

Treasury Form 10.