C.S.

SEALING

(Sea Lions)

1922

No. 296/22

NAT/SEA/2 # 11

Govt Naturalist

SUBJECT.

192 2

6th April

Previous Paper.

GOVT. NATURALIST

Submits Memorandum on the utilisation of Sea Lions

See Mpp. 391/25, 565/25, 215/26, 761/26. 206/24

MINUTES.

Memorandum from Govt Naturalist d 6th April 1922 Encl (1)

~~P.A. 21/4/25~~

~~P.A. 8/4/25~~

P.A. 9/6/27

Y.E.

Submitted

2. At the present time the value the Sea Lion may have depends on the price of oil which remains to be ascertained. Mr: Hamilton could be asked to supply detailed recommendations for exploiting the industry if the price is likely to be remunerative?

tatth 7/4/22

P.A. 10 April 1922

Govt Naturalist

Accordingly

tatth 11/4/22

Hon. Col. Sec.

Noted. My recommendations to follow please. J. E. Hamilton. Government Naturalist. 8/4/22

Subsequent Paper.

W. & S. Ltd.

Minute from Govt Naturalist of 17th July 1922 — Encl (2)

Yr. Submitted
Atkill 20/7/22

H.E.S.

Mr. Hamilton has spent much time & taken great trouble in preparing his report. It is important as being the first attempt, at any rate in recent times, to consider the general question of the possibility of utilization of seal hides in the waters under this Province. Mr Hamilton is adding a paragraph to his annual report on the Seal on this aspect of the question.

2. The production of seal oil within the British Empire is small: 3000 to 4000 tons an export annually from Newfoundland where there is evidently opportunity for utilizing a very large seal population if the "seal skins" exported are those of "harp seals". The average value per ton of seal oil exported in years 1909-1913, as given in Statistical abstract was £19 per "ton" of 256 gallons. As in Statistics of other Colonies the value is probably that given by the shippers on shipment for sale & does not indicate the net price actually obtained.

3. The report, given by Messrs Imrie Knight & Co, after careful examination, on Sea lion oil sent from here shows that its value is about

Equal to whale oil grade I. It is possible that a market may be found eventually for skins which would add to expected profit. In any case Messrs Meade King & Co regard the quality of oil as of excellent ~~[illegible]~~ & are prepared to deal in any quantity. From a commercial aspect the important point seems to be that for a moderate initial outlay oil can be produced which is equal in quality to whale oil for production of which very heavy expenditure is necessary in fitting out an expedition.

4. Mr. Hamilton's proposals have been discussed with him in detail: he has to make assumptions as to (a) production of plant proposed (b) yield per animal. It is important that at the outset quality of oil should be the best which is possible to produce; that actual cost of producing oil should be kept as low as possible; and that waste should be reduced to a minimum. Efficient working in these respects cannot be looked for in the plant which Mr. Hamilton proposes to use.

5. Mr. Hamilton was anxious to make a start at once & that was his reason for

proposing to use such plant as could be obtained locally. [illegible]
His estimates do not include labour the
services of crew of Appleton can be made on
y + their wages are a necessary charge
throughout the year whether the experiments
are tried or not. The moderate estimate on
initial outlay would probably be exceeded
by is necessary where the proposed plant
would not be efficient + if the experiment
proved successful the plant would be
scrapped. On the other hand it is probable
that an efficient plant of adequate capacity
could be obtained at a moderate price especially
considering that it would produce oil of quality
equal to whale oil Grade I. In production of
which such very heavy expenditure is
necessary.

6. It has been decided that experiments
are to be made at once in Appleton: the
work will take at least six weeks + the
time between this work being completed + the
boat being required for sealing will
be very short. Even if method of plant as
proposed by Mr. Hamilton were proceeded with
at once little experimental work in production
of seal oil could be done until March or
April of next year. Mr. Hamilton has expressed
his concurrence in this view.

7. I shall therefore be glad if Mr. Hamilton
will elaborate his proposals + put them
in a form which can go to Sydney. They

should, of course, provide for the efficient plant for producing oil on a moderate scale. It is also to be taken into consideration should be given to the possibility of having plant & buildings which can be moved: the period for which the locality can be worked is likely to be limited. The difficulties of moving steam & power boilers will be considerable but I see not insurmountable. The buildings can be in sections & bolted together: this will permit of plant being packed in small compass. Planning should be steel. Mr Hamilton should confer with the Naval Engineer with regard to plant & building & I shall be glad if Mr Bentley will advise on this point of the scheme.

8. Mr Hamilton suggested Fitton's Stream as a suitable site for the factory: this is too far away from the sealing grounds: he should visit North Kidney Cove & Spurren Cove & ascertain whether water & suitable site can be found in either of these places.

9. I am much interested in Mr Hamilton's

proposals: the important point which has seems to have established is that, whereas very heavy expenditure initial expenditure is necessary to obtain whale oil, an oil of quality equal to the best whale oil can be obtained, in small quantity, from sea lions, of which there are a great number on the colony, with a very moderate initial outlay.

Sm.

5 August 1922

Govt. Naturalist

Returned for action

[illegible] 7/10/22

Letter and catalogue pages from Mr Peters,

Enclos (3)

Colonial Engineer.

Passed to you please, vide H. E's. minute of 5/8/22 para 7.

J. G. Hamilton.
Govt. Naturalist

18th Sept. 1922.

The Hon. Col. Secretary,

Estimate submitted on separate sheet, herewith, with drawing of suggested Try-Works. Encl (4)

R. P. Baseley.
Colonial Engineer.

30/10/22.

Drawing [illegible]

C.S.O. No. 296/22

Inside Minute Paper.

Sheet No. 4

Y.

Submitted

This is a very different matter from the Govt Naturalists estimate of £200 odd. The work is in experimentary stage & should be carried out in the cheapest possible manner even by pumschackle contrivances.

Attd 1/11/22

H.C.S.

The plans for bywash have been carefully prepared & seem suitable. Will you please thank Mr Barclay for the trouble he has taken in preparing them.

2. The Govt Naturalist has had no opportunity of making any comments on the plans & there is no information as to what quantity of oil the wells are capable of producing & what the profit (not only the net revenue) amounts to.

3. The Expenditure involved is considerable & the profit, if any, is dependent on the yield per animal. On this point no information is available & the plans have

Mr. Duncan at Beaver Island thought that the average yield of oil was 10 galls per animal. On this point more definite information is essential before any considerable expenditure is incurred. Mr. Hamilton is to elaborate his proposals & put them in a form for transmission to S of S (para 7 of my Min of 5th August) Could he make suitable arrangements with any settlement for the use of plant in order to determine the yield of oil per animal. This seems an essential point.

J.M.
20 November 1922

Minute to Col. Engineer of 23.11.22. — Encl. (5)

Letter to C.E.
[illegible]

Govt. Naturalist

Accordingly with plans

[illegible] 19/12/22

Hon. Col. Sec.

I beg to state that H.E. informed me after the date of his minute that he did not propose to engage in the preparation of sea lion oil.

2. May I say that the estimated profits would not be sufficient to cover the daily running costs

C.S.O. No. 296/22.

Inside Minute Paper. Sheet No. 5

costs of Afterglow if she were engaged in this work.

J.E. Hamilton.
Govt. Naturalist
13/11/23

Y.E.
Submitted
[illegible]
O.i/C Sec
13th Nov 1923

Put aside please

[illegible] 16 Nov. '23

H.C.S.

I think there must have been some misunderstanding on the part of Mr. J. E. Hamilton Govt Naturalist. After my minute of 20th November 1922 was written & also at Port Stephens in early part of December of this year I asked Mr. J. Robertson to allow the Govt Naturalist to use Port Stephens byworks in order that he might determine what was actual yield per animal. Mr Robertson consented & Govt Naturalist was so informed.

[illegible]
12 January 1925.

Stanley
6thApril 1922.

(1)

Sir,

I have the honour to submit herewith a memorandum on the subject of the utilisation of the sea lions in the Falkland Islands.

I have the honour to be,

Sir,

Your obedient servant,

J.E. Hamilton

(J.E.Hamilton)

Government Naturalist.

The Honourable Colonial Secretary.

Stanley.

SUGGESTION AS TO THE POSSIBILITY OF ESTABLISHING A SEAL LION OIL INDUSTRY IN THE FALKLAND ISLANDS.

For some time past I have been considering the financial aspect of the sealing industry in the Falkland Islands and as a result beg to submit a suggesion which might, it appears to me, simplify the matter.

There are two species of economic possible importance in the Colony, the fur seal and the so called hair seal: in this memorandum I shall use for the latter the name which I believe to be more correct-sea lion.

The protection of the fur seal has already been initiated and the condition of the herd appears to be very satisfactory, but the size of the rookeries at present is such that any large return for the unavoidable expense of the scheme can scarcely be looked for immediately.

The sea lion on the other hand can be definitely stated to exist in large numbers, so far as my observations go there are very few if any of the islands where stock is not run on which the species may not be found in considerable numbers, there is a considerable number of these islands.

Complaints as to the destruction of tussock by sea lions have been so insistent that Government has seen fit to grant permits to a number of persons to drive them off from places which are used sources of tussock fodder.

It is unnecessary to enlarge on the thesis that at this time any development of the natural resources of the Colony is desirable.

The sea lion is polygamous, and assuming, as seems reasonable until and unless definite evidence to the contrary appears, that the sexes are born in equal numbers, it is clear that in the absence of a selective death rate there must be an excess of adult males as in the case of the fur seal, and that most of these could be killed without injury to the species. My observations up to the present lead me to believe that such a surplus exists.

If the prices of the oil such as the samples sent to the Crown Agents for the Colonies and of the hides which are to be sent to the Ocean Leather Company of New York are sufficiently good I would suggest that the Government might take up the sea lion industry as supplementary to the fur sealing. Any profit made could be devoted to assisting to defray the cost of the seal protection and thus the scheme as a whole might be made self supporting. If the fur seal should eventually be found to be so remunerative that the sea lion hunting could be dispensed with the plant used for the latter could no doubt be sold, or the whole

C.S.O.369/21
C.S.O.866/18

whole business as a going concern might be transferred to private hands, under Government control.

With reference to further details, H.M.C.S. Afterglow could probably combine the duties of fur seal protection and sea lion hunting, since a vessel of some sort would be necessary, and in this manner the expense of the purchase of a special craft would be avoided, although it might be made later on if it was found that the profits of the venture justified it, and any unnecessarily great preliminary outlay is most earnestly to be deprecated. Afterglow would cooperate with one or more small and simple try works erected at suitable places on the coasts.

If it is considered that this suggestion is worthy of further attention I propose to submit more detailed plans which I have almost completed, but at the risk of repetition I wish to state that the smallest possible sum compatible with efficiency should be expended in the first stages, since in that way loss, if any, would be minimal, and the profit if any, would be as large as possible (an unexpected collapse in the price of oil would create loss)

In conclusion it is perhaps worth while to mention that formerly sea lion hunting was an occupation in these islands, but has fallen into disuse.

J. E. Hamilton.

(J.E.Hamilton)
Government Naturalist.

6th. April 1922.

1127

(2)

Stanley.

296/22

July 17th. 1922.

Sir,

In accordance with your instructions in the minute paper bear-

ing the number quoted above, I have the honour to submit herewith

detailed plans for a scheme for utilising the Sea Lions in the

Falkland Islands.

J.E.Hamilton

(J.E.Hamilton)

Government Naturalist.

The Honourable Colonial Secretary

Stanley.

DETAILS OF PROPOSED SMALL STATION FOR TRYING OUT SEA LION OIL.

In preparing these plans I have made every endeavour to keep the estimated cost as low as possible consistently with reasonably efficient working. With experience it might be found desirable to alter or improve the plant: the obvious improvement which suggests itself is the substitution of a small pressure boiler for the wooden press proposed for the purpose of extracting the residue of oil from blubber which has been boiled once. A press boiler necessitates the use of a boiler to raise steam and it seems likely that the purchase of such pieces of plant would considerably enhance the cost of the proposed works, for this reason they are not proposed at this stage.

2. I suggest that the actual trying out plant should consist of a 400 gallon tank (galvanised iron) and have assumed an output of 200 gallons per day (5 barrels) with it, experiment alone could show whether that amount is reasonable. A device is included by which oil running from the skins as they are flensed would be collected so that it might eventually be boiled.

3. The scrap from the blubber would be pressed under a weight of half a ton, and the resulting oil boiled, the residue being used as fuel.

4. If such a plant could produce 200 gallons per day, a week of 5½ days would give 1100 gallons or 4½ tons, on the 9th. of May this year sea lion oil was worth £31 per ton in England, which would give

a

a price which would produce a gross weekly profit of £139:10:0.

5. A further assumption which I have made is that an adult male Sea Lion would produce an average of 10 gallons, i.e. a quarter of a barrel. Mr. J. Duncan of Beaver Island informed me from his recollection of boiling down Sea Lions, that this was about the quantity which they averaged, it follows from this that 110 seals would be required per week.

6. In addition to the first cost of the plant recurring expenditure would be necessary on:-

1. Wages and bonuses to hunters and station crew.
2. Fuel.
3. Barrels.
4. Transport.

1. Wages and bonuses. A crew of four men should be sufficient, I would suggest a wage of £2 per week and the essentials of diet, or £1 in lieu thereof. They would receive a bonus of 1/- per barrel turned out, the total estimated earnings per man being £4:7:0 per week. If Afterglow were used in the work the following bonuses per seal are suggested, Officers 2d, crew 1½d., cook 1d., boy ½d..

On a catch of 110 seals per week this would mean a weekly bonus of 18/4 each Officer, 13/9 per man of crew, cook 9/2 and boy 4/7 pe

The purpose of giving bonuses would be to maintain interest in the work which would be arduous and dirty.

2. Fuel. Fuel would require to be supplied since it is not likely that the blubber scrap would suffice, coal, peat and diddle dee are those available. The latter burns fiercely but has the disadvantage of being bulky in comparison to its weight, peat would require to be cut some time before it could be used, I have therefore estimated for a coal consumption of 13cwt. per week, which at present prices would cost £4 at Stanley.

3.Barrels, 40 gallon barrels cost more or less £1 each in Stanley, spirit barrels are not suitable for oil, and other barrels are as a rule scarce. I understand that at the moment there are available 60 paraffin barrels and 105 25-gal on iron drums with screw bungs, the owner has not named a price for these. It appears however that the available oil storage is about 5000 gallons, or roughly sufficient for 4½ weeks work. T

4.Freight. The freight for tallow to England was recently £8 per ton. The local freight varies according to locality, I have based my estimate on £2 per ton which is an average from West Falkland I believe. the total estimated freight being £10 per ton.

7. The recurrent expenditure would be, on these assumptions, as follows:-

Wages	£ 12: 0 0	
Bonus, ship	7:11: 3	
do. , station	5: 8: 0	
Personal	24:19: 3	24:19: 3
2.Fuel	4: 0: 0	4: 0: 0
3.Barrels 27 at £1 each	27: 0 :0	27: 0: 0
4.Freight 4½ tons at £10 per ton	45: 0: 0	45: 0: 0
		100:19: 3 per week.

Gross profits £139:10: 0

Expenditure 100:19: 3

Estimated net profit 38:10: 9 per week

This is based on the price of oil, if skins had a sufficient value to make them worth preparing the estimate would require alteration

6. Estimated cost of materials for plant &c.

The shed to be 30 x12 feet,one long side open:extreme height 11'6".

20 ground posts 6" x 6" - ----------	£ 5: 0: 0
168 feet run,top and bottom plates 4½ x 3"	3: 5: 4
504 feet run, studs, 3 x 2",,1/8 per 12 ft.---	3:10: 0
12 braces 3 x 2 - -------- do. ---	1: 0: 0
10 roof principals 4 x 2 at 4/8 each -------	2: 6:10
9 roof purlings 3 x 2 at 1/8 each ----------	16: 0
2 doors at £2 each ---------- -------	4: 0: 0
Barrow walk at back 62 ft.of flooring at 6½d. per foot run----------	9:12:10
Fuel bin,84 sq.ft.6½ in flooring,at 6½ per ft. run------	6: 0: 4
Iron,roof 480 sq.ft.side 240 sq.ft. ends 264 sq.ft.= 984 sq.ft. at £3:8:9 per 100 sq.ft.----------33:16: 7	
Flensing board,64 ft.flooring at 6½d.per foot run----------	6: 0: 0
Press,96 battens £1:2:6,54 feet flat iron, £1--	2: 6: 0
Jib,16 ft.6" spruce,----------	1: 0: 0
2 400-gallon tanks at £22 each ----------44: 0: 0	
Bricks,1000----------	5: 0: 0
Piping,nails &c.say----------	5: 0: 0
TOTAL------ £134:13:11 + 1:3:6 - roof beams & out in walls = 135:17: 5	

Iron should be laid horizontally on the walls,this gives greater structural strength and renders wall purlings unnecessary.

If it were necessary to erect a small house to accomodate four men (single room) the cost would be about £70,not including such furniture as would be required.

9. Sale of oil. I sent privately small samples of the Sea Lion oil prepared by Mr.Jason Hansen,to Mr.W.Smellie,director of Meade-King Robinson and Co.,Liverpool,with whom I am acquainted,and quote the following from his letter on the subject:-

"The samples of porpoise and seal oil which you sent me have now been carefully examined. They represent oil of excellent quality. We are prepared to deal in any quantity of oil of about the quality represented by your samples.

I cabled at your request as follows:-"Porpoise and seal oil worth £31 per ton in England"

This gives you an approximate value. It is quite probable that we might be able to sell the oil of this description at £1 per ton over the price named,but as it is quite impossible to prophesy as to the future course of the market we think we have given you a conservative valuation.

It will interest us greatly to know if you are likely to have any such oil available for shipment to Liverpool.

With regard to fixing up with any one buyer to take the entire output of porpoise and seal oil,we think there should be no difficulty provided you can estimate approximately the quantity of oil you are likely to have available for delivery in this country in any one season.

(signed) William Smellie.

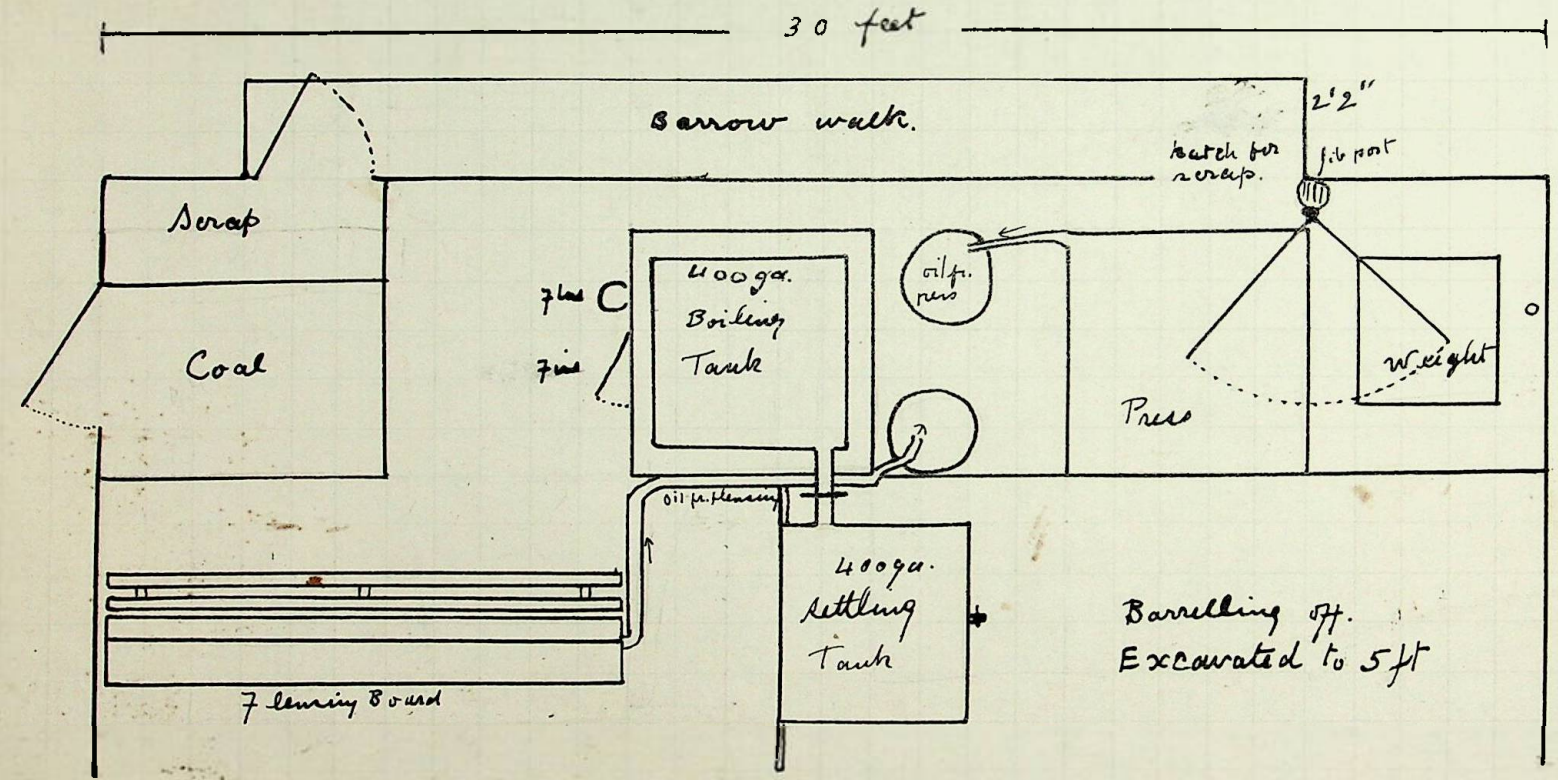
10. The present proposal contemplates the killing of adult male Sea Lions at the season when they are fattest, it seems likely that this will be found to be towards the end of winter, but the exact time can only be ascertained by experiment. This animal is polygamous and my observations on it go to show that there are, as in the case of the Fur Seal, many superfluous males, it is from these that the industry would derive its raw material. Mr. Jason Hansen did not find that the adult males were remunerative on account of their large size which entailed great labour, but his resources are considerably less than those which I have assumed would be available for the scheme at present under consideration. Some form of farming might eventually be found desirable, if it should appear that the extraction of the oil is a financially sound proposition.

11. A number of applications have been granted which have authorised the driving or destruction of Sea Lions on tussac islands or in some cases, on pasture land, the grounds for this action being the deleterious effect the seal are stated to have on the food of domestic animals. If such reduction of Sea Lions must take place it is preferable to derive some product (oil) of value, from them rather than to permit killing which merely results in the destruction of the animals. There is a great number of these animals in the Falkland Islands

J. E. Hamilton

(J.E. Hamilton).
Government Naturalist.

only temporary permission has been given, with concurrence of G.N.: permission has expired, I think, in all cases in which it was granted. [illegible]
5 August 1922



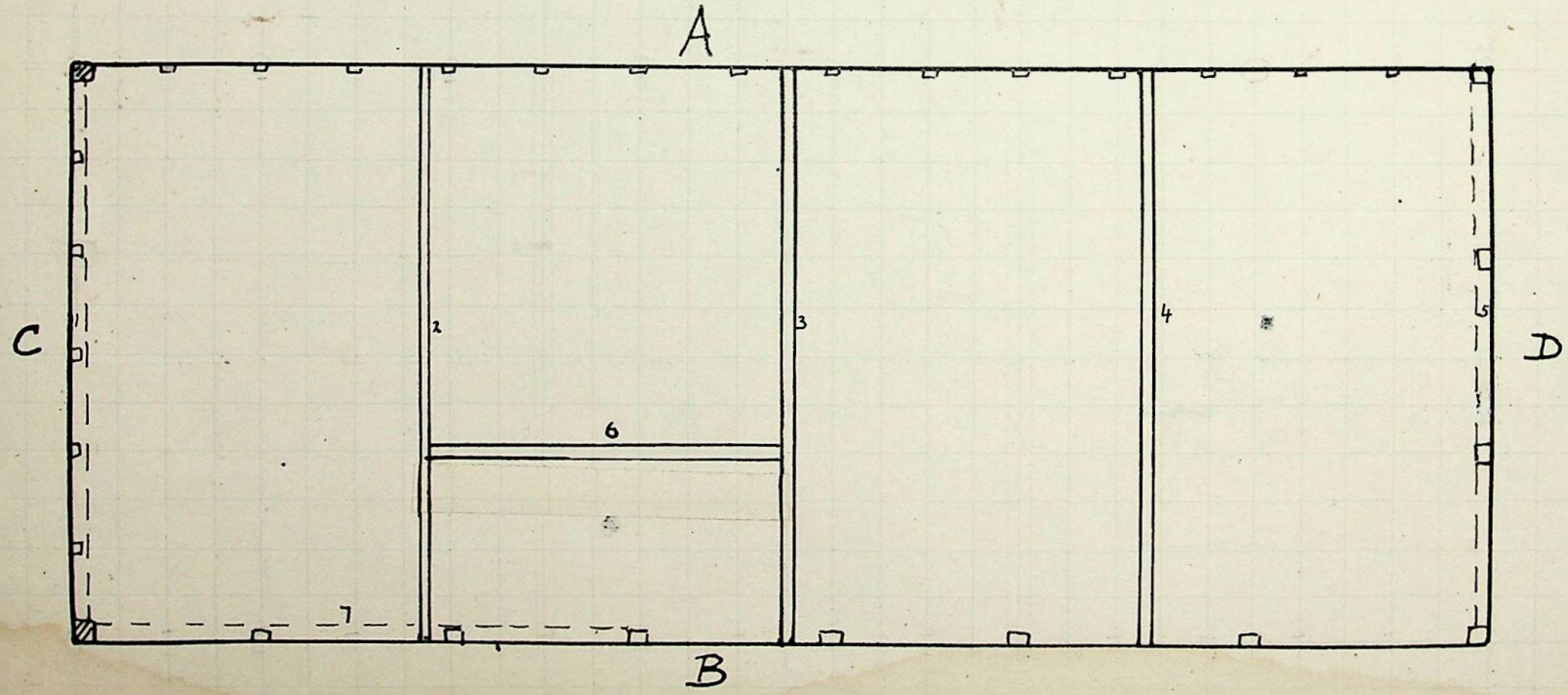
Plan of try-works

1/48

12 ft

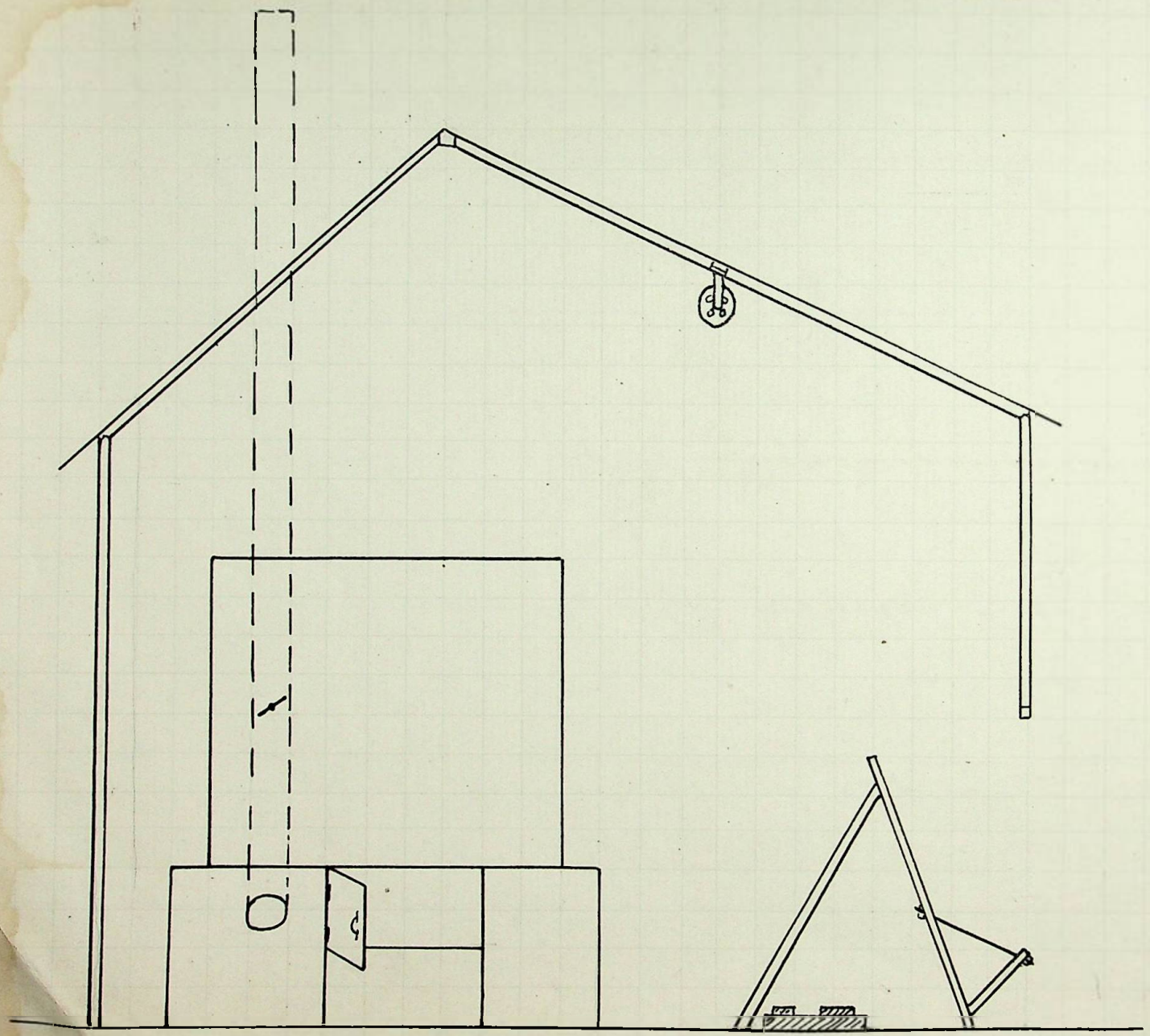
Ground posts. 6"×6", every 4ft.
Top and bottom plates 4½"×3"
Studs 3"×2", every 2'1"
Braces 3"×2"
Roof principals 4"×2".
Corner posts 4½"×3"

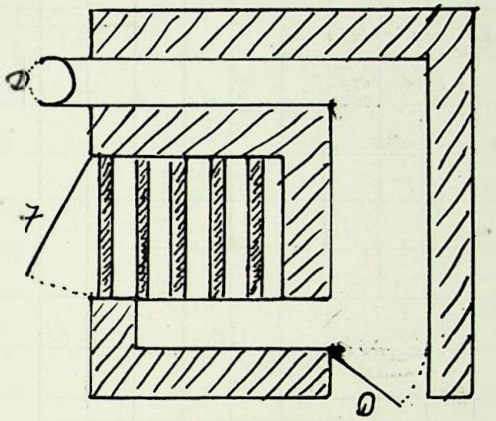
Plan of Try-works Shed.
Showing wall timbers. 1/48



Studs and corner posts shown on A and C.
Ground posts shown on B and D.

Open side = B.
1–5 = Roof principals
6 Timber for blubber hoist.
7 do 4 ft. from ground, over space for drawing skins to flensing board





Plan of heating passages below tank.
7. Fire door
D. cleaning door
1/24

View from end C showing boiler bladder hoist pulley and flensing board.
1/2H

(3)

Mr Hamilton
F.I.Gov: Naturalist.
Stanley.

Goose Green
25 th Aug: 1922

Dear Sir,

I enclose portion of Irecht CO Catalogue relating to Digesters.

The book which I mentioned to you I am not sending as it deals entirely with refrigeration & meat canning and would be of little use to you.

The digester which we have out here is just about the thing you require. It is 5ft 6ins in diam: & 6ft long with doors at top and bottom, something like Fig 402 in catalogue, without the legs.

You would require a small donkey boiler of about 6 to 8 HP with pump, which should also be sufficient for an additional open tank of 400 to 600 Gallons .

Trusting that this imformation may be of some use to you,

I remain,

Yours Faithfully,

L. P. Peters

The Brecht Crescent Steel Tanks

Rendering and Receiving Tanks
Digesters

Section 7

THE BRECHT COMPANY

Established 1853

Main Offices and Factories
ST. LOUIS, MO., U.S.A.

Branches

NEW YORK
174-176 Pearl St.

CHICAGO
Monadnock Bldg.

PARIS, FRANCE

BUENOS AIRES, A. R.

Introduction

On the following pages we illustrate and describe the BRECHT Standard Rendering Tanks of various kinds: tanking outfits, storage and receiving tanks, which are used extensively for the rendering of edible or inedible products, such as lard, grease, tallow, general packing house offal, dead animal stock, garbage, etc.

Although, we show only various sizes and styles of tanks, we manufacture rendering tanks, digesters, storage and receiving tanks, of all types and descriptions and a request for detailed specifications and estimates on special tank equipment will not place you under the least of obligation.

The manufacturing of rendering tanks for the above purposes requires years of experience, and this—in connection with the special material which we embody in the construction—assures the purchaser of the highest quality product.

We offer the services of a competent Engineering Department for the lay-out of rendering machinery and we invite prospective purchasers to write us freely about their requirements.

See next pages for detailed specifications and descriptions.

Always at your service,

THE BRECHT COMPANY,
Established 1853.

THE BRECHT CRESCENT BUTCHER'S TANKING OUTFIT

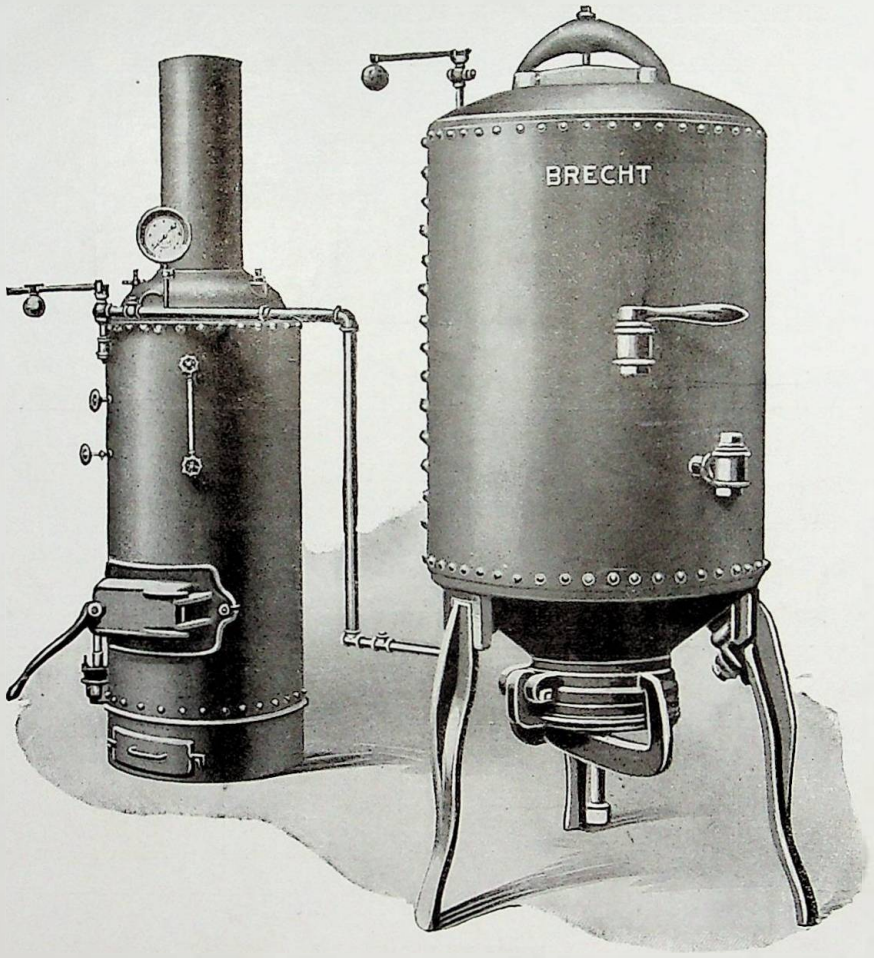


Fig. 401. Fig. 402.

This is the only tanking outfit in the market with a first-class boiler having best steel fire box. We do not furnish so-called "generators" with cheap cast iron fire boxes which are condemned by all mechanical engineers; in addition to their more serious defect, they require more fuel to raise and maintain steam.

Our outfits are used for rendering lard, tallow and grease of all kinds, bones, hoofs, tails, trimmings, etc., can be tanked, and everything greasy in them put in the best possible shape to sell.

The profits in the butchering business are getting closer from year to year, and the time is at hand when every butcher who wishes to get ahead must provide methods to save his offal and turn it into salable commodities.

With a comparatively small outlay for a Tanking Outfit, every part can be made valuable. All the grease, bones, etc., can be turned into money, and at a very small expense. The operation is simple and full printed directions are furnished with each outfit. No press is needed.

Our tank boilers are made throughout with steel plate and no cast iron is used in their construction. The plate is the best boiler flanged steel, and they are now furnished with a number of tubes instead of the single tube, as formerly. These are regular steam boilers, not generators.

Every boiler and tank is tested at 150 pounds hydrostatic pressure, and afterwards with steam, before it leaves the shop.

No smokestacks are furnished unless specially ordered.

We can furnish this tank equipped with side opening man head our Fig. 403.

THE BRECHT CRESCENT BUTCHER'S TANKING OUTFIT

COMPLETE BOILER, TANK, PUMP AND PIPE CONNECTIONS

No.	Capacity in Gallons	Domestic Weight	Export Weight	Displacement in Cu. Ft.	Code Word
1	150	1,995 lbs.	2,450 lbs.	105	Aseidad
2	225	2,145 lbs.	2,600 lbs.	115	Asegureis
3	300	3,110 lbs.	3,600 lbs.	152	Asegurases
4	400	3,210 lbs.	3,725 lbs.	200	Aseguraron
5	500	3,800 lbs.	4,375 lbs.	240	Asegurando
6	600	4,490 lbs.	5,025 lbs.	285	Asentados
7	700	4,740 lbs.	5,350 lbs.	325	Asentare
8	800	4,850 lbs.	5,450 lbs.	350	Asentaseis

TANK ONLY

No.	Capacity in Gallons	Diameter	Height	Domestic Weight	Export Weight	Displacement in Cu. Ft.	Code Word
1	150	30″	42″	975 lbs.	1,200 lbs.	75	Asentemos
2	225	30″	66″	1,125 lbs.	1,350 lbs.	98	Asentido
3	300	42″	48″	1,735 lbs.	1,975 lbs.	112	Asentiras
4	400	42″	64″	1,835 lbs.	2,100 lbs.	160	Asentiste
5	500	42″	80″	2,050 lbs.	2,350 lbs.	180	Asepide
6	600	48″	76″	2,740 lbs.	3,000 lbs.	225	Asequibles
7	700	48″	89″	2,890 lbs.	3,200 lbs.	250	Asercion
8	800	48″	102″	3,000 lbs.	3,300 lbs.	275	Aserciones

BOILERS ONLY

No.	Used with Tanks Nos.	Diam.	Hght.	Flue	Fire Box	Dom. Weight, Lbs.	Export Weight, Lbs.	Displacement, Cu. Ft.	Rated H. P.	Code Word
1	1 and 2	22″	48″	7″	18″x24″	1,020	1,250	30	2½	Aseroe
2	3 and 4	24″	60″	7″	20″x30″	1,375	1,625	40	3½	Aserrables
3	5 and 6	28″	66″	8″	24″x36″	1,750	2,025	60	5½	Aserradas
4	7 and 8	30″	72″	10″	26″x40″	1,850	2,150	75	6	Aserradizo

These tank boilers are made of flange steel boiler plate with wrought iron flues. Prices include hand force pumps or injector feeders.

No smokestacks are furnished unless specially ordered.

THE BRECHT CRESCENT BUTCHER'S RENDERING TANK
(WITH SIDE OPENING MAN HEAD)

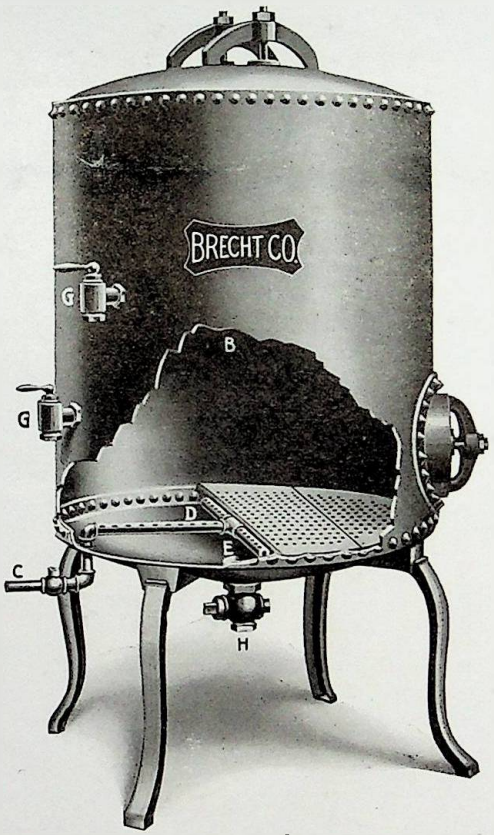


Fig. 403.

We can furnish this style of tank instead of the drop-bottom type, shown in connection with the boiler. Can also be furnished singly.

The same specifications apply to both types.

Use the same code word, but add the word "side" if this type of tank is wanted.

Write us freely on your requirements. Prices and detailed information will be gladly furnished without obligation. Our Engineering Department is at your service for economical machinery lay-outs.

THE BRECHT CRESCENT STANDARD RENDERING TANK

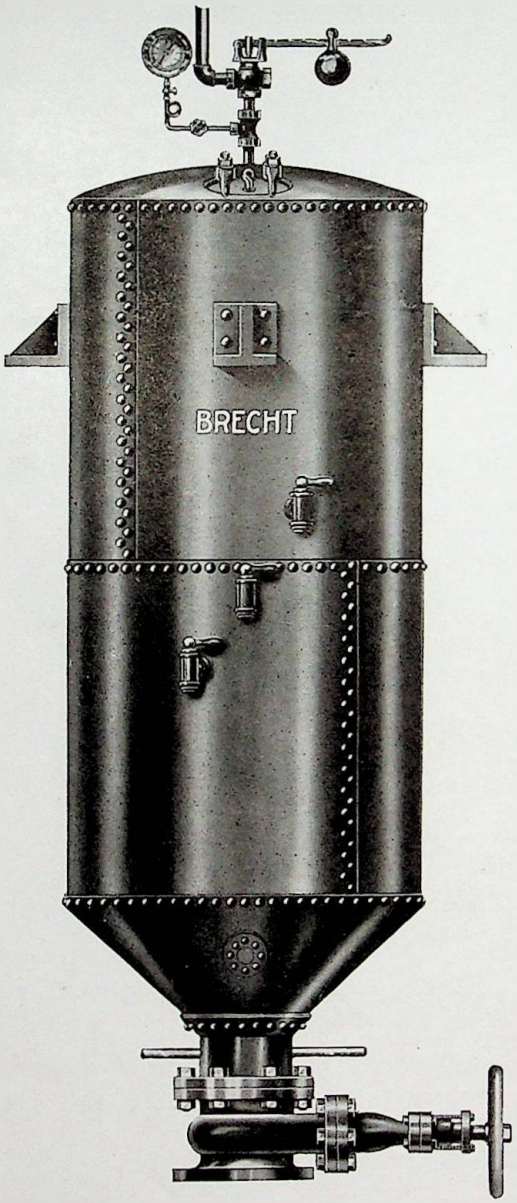


Fig. 210.

See next page for detail Description and Specifications

Our manufacturing facilities enable us to produce tanks of all descriptions, lengths and diameters and we will gladly quote on any size not shown in our catalog.

THE BRECHT CRESCENT STANDARD RENDERING TANK

Fig. 210.

On the opposit side of this sheet we illustrate our Standard Rendering Tank for cooking lard, tallow, offal, etc., under steam pressure.

These tanks are exceptionally well made of the best tank steel, all vertical seams being double riveted and roundabout seams single riveted, unless otherwise specified.

Our Standard Rendering Tanks are always completely equipped with supporting lugs, draw-off cocks, steam gauge and safety valve, 10-inch gate valve attached to the bottom of the cone, manhole and cover, and are tapped for the necessary steam and water connections.

We build these tanks in any size, but we give below specifications, on the eight standard sizes most frequently used:

No.	Diameter	Length Straight Side	Length Over All	Working Capacity in Lbs. of Raw Material	Thickness of Shell	Thickness of Head	Thickness of Cone
1	42″	48″	87″	1,700	1/4″	5/16″	5/16″
2	42″	72″	111″	2,850	1/4″	5/16″	5/16″
3	48″	72″	114″	3,400	5/16″	3/8″	3/8″
4	48″	96″	138″	5,000	5/16″	3/8″	3/8″
5	60″	96″	144″	7,100	5/16″	3/8″	3/8″
6	60″	120″	168″	9,500	3/8″	1/2″	1/2″
7	72″	120″	174″	12,700	7/16″	1/2″	7/16″
8	72″	144″	198″	16,000	1/2″	5/8″	1/2″

No.	Weight	Weight for Each Additional Foot in Length	Displacement in Cubic Feet	Code Word for Fig. 210	Code Word for Fig. 400-A
1	925 lbs.	150 lbs.	140	Aserrado	Asfixieis
2	1,225 lbs.	150 lbs.	160	Aserradora	Asfixiases
3	1,750 lbs.	190 lbs.	200	Aserraran	Asfixiaron
4	2,130 lbs.	190 lbs.	270	Aserraria	Asfixiar
5	2,925 lbs.	225 lbs.	360	Asserines	Asfixiando
6	4,200 lbs.	250 lbs.	425	Asestaria	Asfixiamos
7	6,500 lbs.	375 lbs.	613	Asestaban	Asfixiaba
8	8,400 lbs.	450 lbs.	698	Asesoria	Asfissia

See next pages for other styles of tanks.

THE BRECHT CRESCENT STANDARD RENDERING TANK

(WITH INVERTED HEAD)

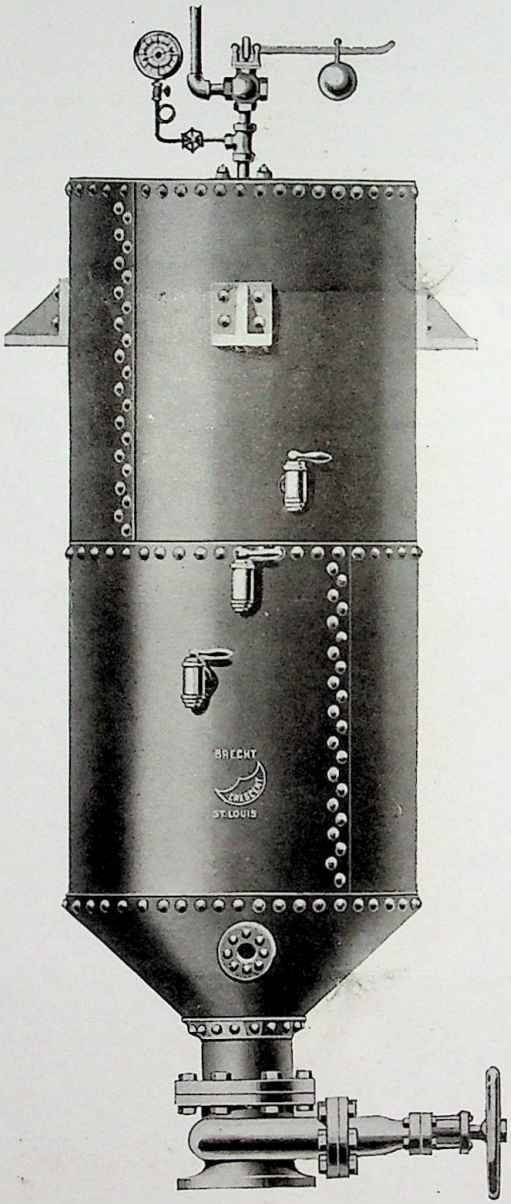


Fig. 611.

This shows our standard Rendering Tank with inverted head, which is preferred by many renderers, as it is very easily charged.

The same specifications apply as on our figure No. 210 tank; using the same code, but add the word "invert".

We furnish complete equipment for rendering plants, including dryers, evaporators, presses and auxiliaries.

Write for our Tank-house and By-product catalog

THE BRECHT CRESCENT RENDERING TANK WITH CAST IRON HEAD

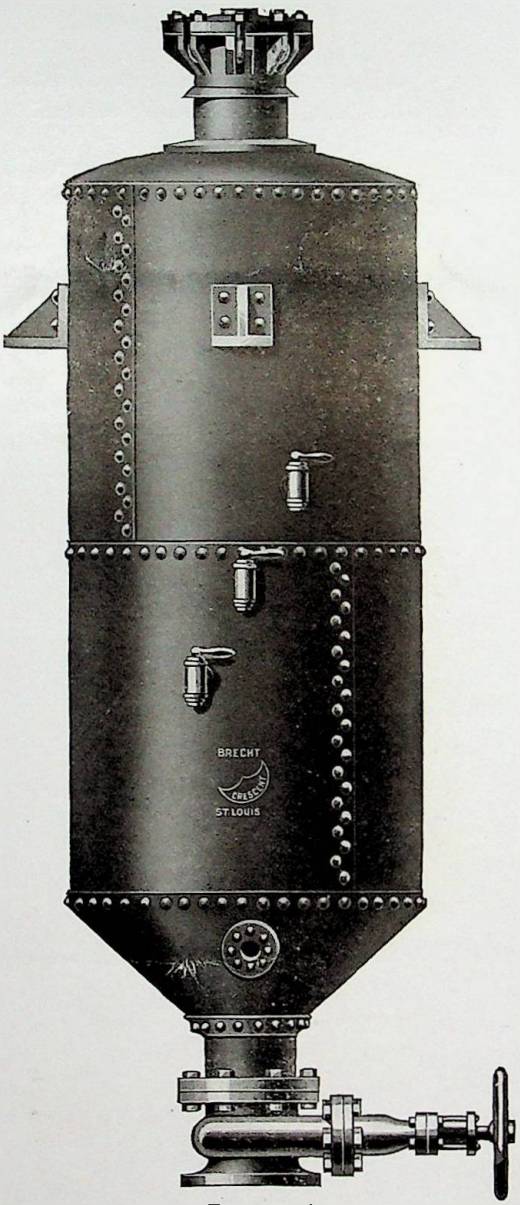


Fig. 400-A.

This type of tank has a special sanitary head, which usually extends through the floor.

It has a hinged cover and is fastened down securely by means of eight heavy eye bolts.

The net inside diameter of the opening is 16".

Specifications and descriptions on next page.

Write us freely on your tank requirements. Prices and detailed information will be gladly furnished without obligation. Our Engineering Department is at your service for economical machinery lay-outs.

THE BRECHT STANDARD RENDERING TANKS

Fig. 400-A.

On the foregoing page we illustrate our Standard Rendering Tank, Fig. 400-A, for Cooking Lard, Tallow, Offal, etc., under steam pressure.

These tanks are exceptionally well made of the best tank steel, all vertical seams being double riveted and roundabout seams single riveted, unless otherwise specified.

Our Standard Rendering Tanks are always completely equipped with supporting lugs, draw-off cocks, steam gauge and safety valve, 10-inch gate valve attached to the bottom of the cone, manhole and cover, and are tapped for the necessary steam and water connections.

We build these tanks in any size, but we give below specifications on eight standard sizes most frequently used:

No.	Diameter	Length Straight Side	Length Over All	Working Capacity in Lbs. of Raw Material	Code Word
1	42″	48″	112″	1,700	Asesoraron
2	42″	72″	136″	1,800	Asesorases
3	48″	72″	140″	3,400	Asesoramos
4	48″	96″	164″	5,000	Asesoraba
5	60″	96″	172″	7,100	Asesor
6	60″	120″	196″	9,500	Asesino
7	72″	120″	204″	12,700	Asesineis
8	72″	144″	228″	16,000	Asesinaron

No.	Approximate Weight	Thickness of Shell	Thickness of Head	Thickness of Cone	Displacement in Cu. Ft.
1	1,800 lbs.	1/4″	5/16″	5/16″	140
2	2,200 lbs.	1/4″	5/16″	5/16″	160
3	2,600 lbs.	5/16″	3/8″	3/8″	200
4	3,000 lbs.	5/16″	3/8″	3/8″	270
5	3,800 lbs.	5/16″	3/8″	3/8″	360
6	5,000 lbs.	3/8″	1/2″	1/2″	425
7	7,400 lbs.	7/16″	1/2″	7/16″	613
8	9,300 lbs.	1/2″	5/8″	1/2″	698

THE BRECHT CRESCENT RENDERING TANK WITH ROUNDED BOTTOM

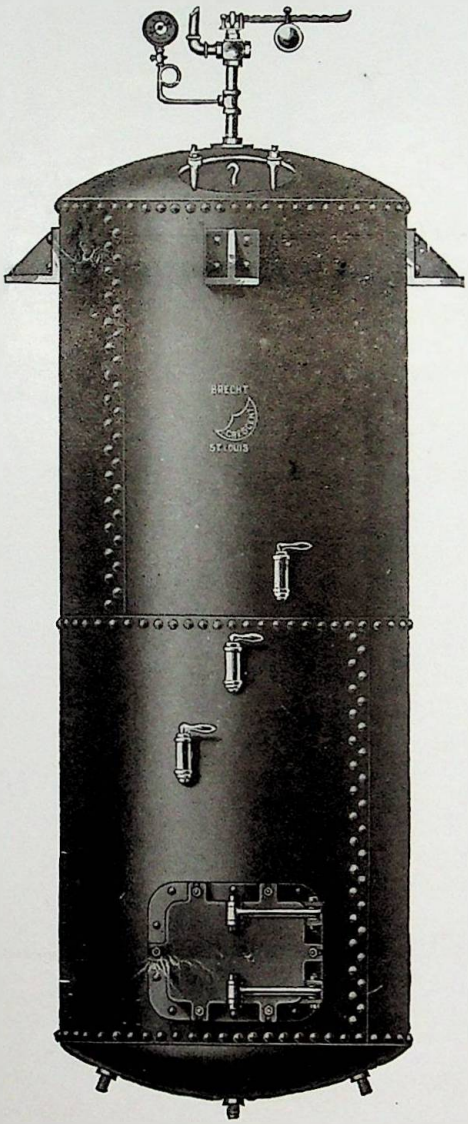


Fig. 227.

This type of tank is in great favor by renderers of dead animal stock. The manhole is 16x22 inches, and side door opening is 14x20 inches.

A perforated steel plate is near the bottom, flush with the bottom of the door, for the very convenient discharge of the tankage or bones.

Built in all sizes to meet requirements of the purchaser.

Code Word.....Asesinamos

THE BRECHT CRESCENT RENDERING TANK

(JACKETED)

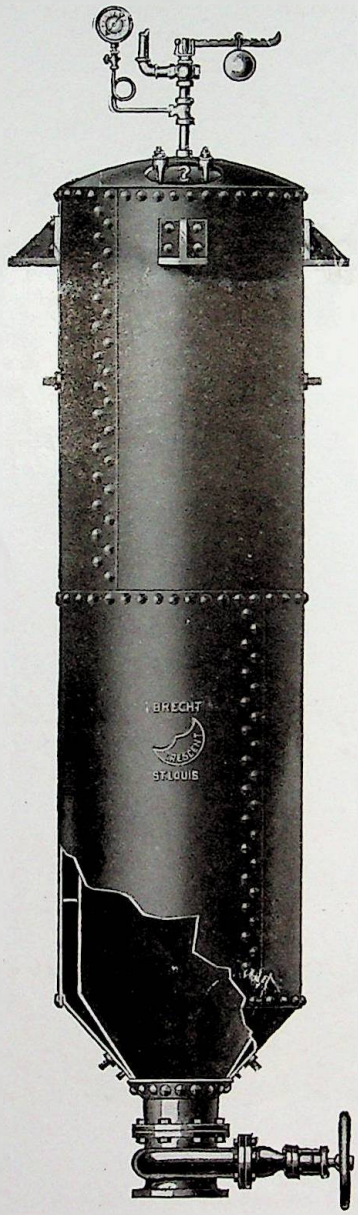


Fig. 228.

This Jacketed Rendering Tank or Digester is in great favor among renderers who manufacture poultry food.

Built in all sizes to meet the requirements of purchaser.

Code Word.....Asesinar

RENDERING TANK EQUIPMENT

DRAW-OFF COCKS—All Iron

Number	Size	Code Word
A	1½″	Asesinado
B	2″	Asesinadas
C	2½″	Asertorio

GATE VALVES

Iron Body, Brass Trimmings, Wedge Gate, Flanged, Non-rising Stem

Number	Size	Code Word
2	12″	Aserto
4	14″	Asertivas
6	16″	Asestas

SAFETY VALVES

Iron Body, Brass Trimmings, Lever and Ball Type, Levers Graduated from 30 to 100 Pounds

Number	Size	Code Word
A	1¼″	Aseveraba
B	1½″	Aseveramos
C	2″	Aseverando

PRESSURE GAUGES

Single Bourdon Spring, Iron Body, Brass Ring

Number	Size Dial	Code Word
3½	3½″	Aseverar
5	5″	Aseveraron
6	6″	Aseverases
10	10″	Asevereis

Above prices include cock with each gauge.

THE BRECHT CRESCENT RECEIVING TANKS
FOR LARD, TALLOW, GREASES AND OILS

Fig. 413.

Size	Weight	Displacement Cu. Ft.	Code Word
4′x4′x3′	450 lbs.	40	Asexual
6′x3′x3′	525 lbs.	118	Asexually
7′x4′x3′	950 lbs.	118	Asfalite
8′x4′x3′	1,200 lbs.	134	Asfaltaban
10′x5′x4′	1,500 lbs.	260	Asfaltado
12′x5′x5′	2,400 lbs.	380	Asfaltais
12′x6′x5′	3,200 lbs.	450	Asfaltemos

All tanks are made of the proper steel for each size and equipped with angle iron around top coils, and all flanged openings for pipe connections.

RECEIVING TANK WITH CRACKLING RECEIVER

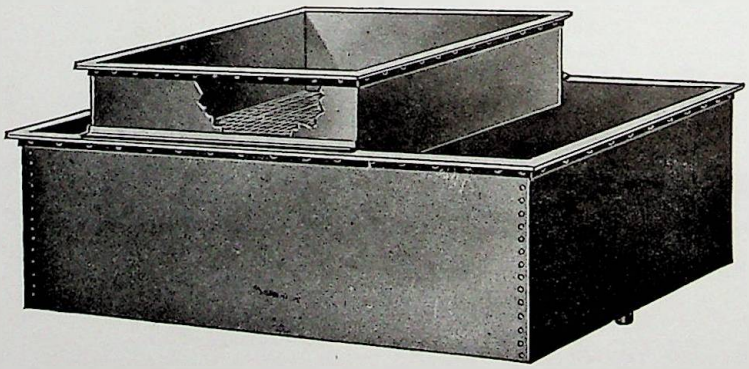


Fig. 489.

This Receiving Tank is equipped with a Crackling Receiver and a Strainer and is used for receiving the residue from Jacketed Lard Kettles. We make them in all sizes, but usually furnish the tanks of the following dimensions:

Size	Weight	Displacement Cu. Ft.	Code Word
3′x4′x3′	370 lbs.	36	Asfalticas
4′x4′x3′	430 lbs.	48	Asfaltico
5′x4′x3′	500 lbs.	60	Asfaltide
6′x4′x3′	540 lbs.	72	Ashimah

These tanks are furnished complete with all openings; also strainer, and are made of suitable steel to suit the sizes.

THE BRECHT CRESCENT SLUSH TANKS

SQUARE SHAPE

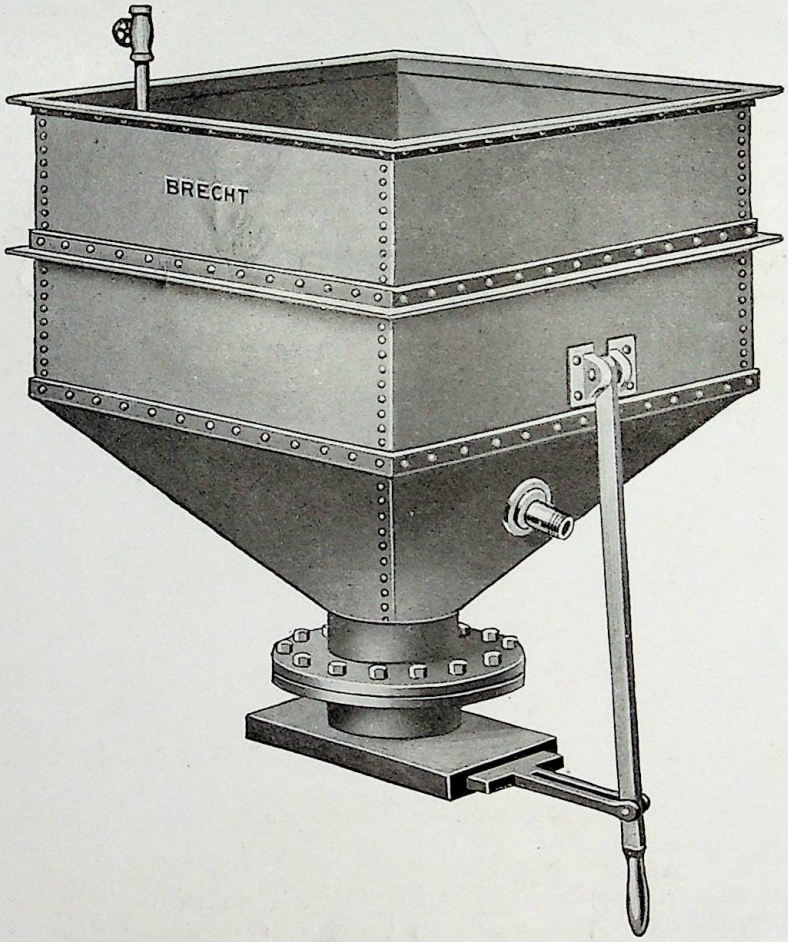


Fig. 404.

Built as shown in the illustration. They are well riveted and braced. Equipped with 12-inch sliding gate valve and perforated pipe or coil inside of the tank for reheating the material.

The tanks are built to order and prices will be furnished upon application for sizes not listed.

STANDARD SIZES, SQUARE SHAPE

No.	Size	Thickness of Steel	Weight	Displacement Cu. Ft.	Code Word
1	3′ 6″x3′ 6″x2′ 6″	3/16″	1,200 lbs.	39	Ashery
2	4′x4′x2′ 6″	3/16″	1,400 lbs.	51	Ashdod
3	5′x5′x2′ 6″	3/16″	1,700 lbs.	78	Ashbea
4	5′x5′x3′	1/4″	1,800 lbs.	92	Asharia
5	6′x6′x2′ 6″	3/16″	2,400 lbs.	114	Asfodillo
6	6′x6′x3′	1/4″	2,600 lbs.	132	Asfodelos

THE BRECHT CRESCENT SLUSH TANKS

RECTANGULAR SHAPE

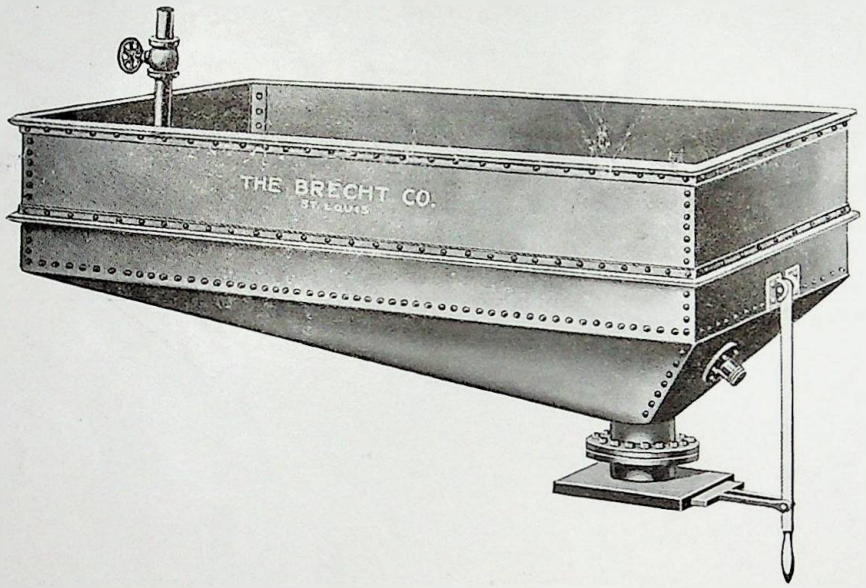


Fig. 212.

These tanks are used directly under rendering tanks to receive the residue from the tank after the grease or tallow has been withdrawn.

Built as shown in the illustration. They are made of heavy ¼" steel plate, well riveted and braced. Equipped with 12-inch sliding gate valve and perforated pipe or coil inside of the tank for reheating the material.

These tanks are built to order and prices will be furnished upon application for sizes not listed.

STANDARD SIZES, RECTANGULAR SHAPE

No.	Size	Weight	Displacement in Cubic Feet	Code Word
1	3'x4'x2' 6"	1,500 lbs.	38	Asfodelina
2	4'x4'x3' 6"	1,750 lbs.	66	Asfodelias
3	5'x6'x3' 0"	2,200 lbs.	110	Asfodelado
4	5'x8'x3' 6"	2,600 lbs.	167	Asfixio

(C.S. 296/22)

4

The Hon. Col. Secy.,

I beg to submit under separate cover a drawing of suggested Try-Works and Dwelling. Tracings have not been taken.

2. The construction of buildings to be of a semi-portable nature. Corrugated iron walls carried on timber framing.

Pile foundations.

Estimated cost as below.

TRY WORKS

	£	
Material: timber, corrugated iron, paint etc.	360.	
Erection in Stanley and marking for re-erection.	106	466.
Unforeseen @ 10%		46 512.

PLANT. F.O.B. Liverpool or Bristol Channel Ports

"Cochran" boiler - 8 to 10 H.P.	190.	
Feed pump - 200 gallons per hour	18	
Open try boiler - 400 gallons capacity	30	
Pressure boiler - 400 do. do.	40	
Settling tanks - 300 do. do.	40	
Flensing board etc.	15	
Brass cocks, steam pipes etc.	43.	376
Estimated freight		54
Assembling in Stanley and marking for re-erection		50 480.

DWELLING HOUSE.

Material: timber, corrugated iron paint etc.	250.	
Erection in Stanley and marking for re-erection	50	300.
Estimated total		£1292.

R.B. Basely.

Colonial Engineer.

30/10/22.

(5)

No. 296/22

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

MINUTE.

....23rd November,....19 22.

To the Colonial Engineer,

.....Stanley.....

.....

From

THE COLONIAL SECRETARY,

Stanley, Falkland Islands.

With reference to your Minute of the 30th October, forwarding plans of suggested Try-Works and Dwelling, I am directed by the Governor to convey to you His Excellency's thanks for the trouble you have taken in preparing the plans.

W. Barlas.

for Colonial Secretary.