

Rangitoto Beacon

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1987. 328. 588

FILE NO. 696.

PINTSCH'S PATENT LIGHTING COMPANY LTD.

Including: Quotations for Converting various Lights
and Materials ordered for RANGITOTO BEACON,
AND DEVONPORT SANDSPIT BEACON.

VARIOUS.

Rangitoto Beacon

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Including: Quotations for Converting various Lights
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VARIOUS.

NTSCH'S PATENT LIGHTING COMPANY, LIMITED.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C. July 15th. 1913.

ELEGRAPH
CODE
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WORKS.
DOVER WHARF,
LIMEHOUSE.

W.H. Hamer Esq., M.I.C.E.,
Auckland Harbour Board,
New Zealand.

AUCKLAND
HARBOUR BOARD
REC'D AUG 25 1913
July 23 001.913
Engineer's Department.

*See letter of Dec 31/13
for order*

Dear Sir,

At the request of our Mr. Saxton we have the
pleasure of sending you estimates for the following:-

OILGAS LIGHTING.

Conversion of Rangitoto Beacon to Incandescent.
Oilgas Beacon for O'Keai Wharf.
" " " O'Neils Point.
" " " St Heliers Bay Wharf.
" " " Manukan Harbour.
" " " Kohimarama Light.
Conversion of Rangitoto Channel Wigham Buoy to Oilgas.
Gas Buoy drawing No.

DISSOLVED ACETYLENE.

Conversion of Rangitoto Channel Wigham Buoy to dissolved
acetylene.
Cylinders and lantern for O'Neil Point.
" " " " St Helier Bay Wharf.
" " " " Manukan Harbour Buoys.

With regard to the cost of upkeep, we understand
that the New Zealand Government Railway Department charge
40/- per 1000 cb ft for the gas, therefore the oilgas buoys
and beacons with flashing apparatus two seconds light and
four seconds dark, would cost £9 - 4 - 0 per annum. A
similar flash for dissolved acetylene will cost about
£22 - 10 - 0, but to bring this down to a reasonable figure
a flasher with a characteristic of 1:10 would have to be

No. 2.

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W.H. Hamer Esq., M.I.C.E.,

July 15th. 1913.

employed. This would cost £7 - 10 - 0 per annum, but in our opinion this period of light is too short for navigating purposes.

With regard to Bean Rock Lighthouse, we shall be pleased to give you an estimate for converting this to oilgas, if you will kindly let us have a drawing of the structure to enable us to calculate and draw in suitable gas cylinders.

For your information we would inform you that we have recently appointed Messrs. Richardson McCabe & Co. of 11 Grey Street, Wellington, New Zealand, as our agents for this class of business.

We shall be pleased to give you any further information you may desire.

Yours faithfully,

PINTSCH'S PATENT LIGHTING COMPANY, LTD.

J.R. Winsley

GENERAL MANAGER & SECRETARY

H/P.

No. 3.

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W.H. Hamer Esq., M.I.C.E.

July 15th. 1913.

We also enclose the following:-

Drawing No. 2604. Incandescent 300 m/m Buoy lantern.
No. 2545. " 200 m/m " "
No. 3065. Oilgas Buoys.
No. 2225. Oilgas Beacon.
No. 2062. " "
No. 2706. Conversion of Wigham Buoy to oilgas.
No. 2817. Buoys lighted by Dissolved acetylene.
No. 3092. Beacon lighted by Dissolved acetylene.
x General Buoy and Beacon Catalogue.
Incandescent Buoy Catalogue.

Drawing N° 1457 Transport Storeholder for Oil Gas.

x This is somewhat out of date, but we hope to publish a new one shortly, also a catalogue on Dissolved Acetylene, copies of which will be sent you immediately they are ready.

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PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E. C July 15th. 1913.

TELEPHONE N^o 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH LONDON.
CODES USED, A B C 5th Ed. LIEBERS.
ENGINEERING CODE 2nd EDITION.
BENTLEY'S CODE.



WORKS,
DOVER WHARF,
LIMEHOUSE.

AGENCIES.

BRISBANE,
HOLMES & CHURCH,
272, QUEEN STREET.

BUENOS AYRES,
J. P. BREDIUS,
529, CALLE CUYO.
PERCY GRANT & CO
519, BARTOLOME MITRE.

CAIRO,
F. RATCLIFFE,
SHARIA SAPIEH.

CALCUTTA,
HEATLY & GRESHAM LTD
6, WATERLOO STREET.

MELBOURNE,
WM ADAMS & CO
612-616, COLLINS STREET, (W)

SYDNEY,
WM ADAMS & CO LTD
175, CLARENCE STREET.

SHANGHAI,
DODWELL & CO LTD
A. R. BURKILL & SONS.

TOKIO,
A. J. S. LEFROY,
MITSU BISHI BUILDINGS.

W. H. Hamer Esq.,
Auckland Harbour Board.

APPROVED HARBOR BOARD.
REC: AUG 25 1913
Engineer's Department.

ESTIMATE

OILGAS LIGHTING.

GAS BUOYS. Drawing No 3065.

PRICES
D/D F.O.B. LONDON.

Welded 10 ft Gasbuoy, capacity 380 cb ft
for a working pressure of 6 to 8 atmospheres,
with Incandescent Lantern 200 m/m diameter
lens, flashing apparatus, conical or can
superstructure, counterweights, valve and
piping complete.

£324 - 0 - 0.

Consumption with flasher of 2 secs light and
4 dark, about 0.5 cb ft.
Duration of light with flasher, buoy charged
to 6 atmospheres, 190 days.
Illuminating power 220 Candles.

NOTE.

If lantern is required with fixed light,
Consumption 0.75 cb ft per hour.
Duration of light 120 days.
Price of buoy would be £15 less.

Welded 9 ft Gas Buoy, capacity 280 cb ft,
for a working pressure of 6 to 8 atmospheres,
with Incandescent lantern 200 m/m dia: lens,
flashing apparatus, conical or can super-
structure, counterweights, valve and piping
complete.

£315 - 0 - 0.

Consumption with flasher 0.5 cb ft.
Duration of light with flasher, buoy
charged to 6 atmospheres, 140 days.

NOTE.

If lantern is required with fixed light,
Consumption 0.75 cb ft per hour.
Duration of light 90 days.
Price of buoy would be £15 less.

W.H. Hamer Esq.,

July 15th. 1913.

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PRICES
D/D F.O.B.LONDON.

Welded Gas Buoy 7'6" dia: capacity 175 cb ft, for a working pressure of 6 to 8 atmospheres, with Incandescent lantern, 200 m/m dia: lens, flashing apparatus, conical or can super-structure, counterweights, valve and piping complete, £257 - 0 - 0.

Consumption with flasher, buoy charged to 6 atmospheres 0.5 cb ft per hour.
Duration of light 85 days.

NOTE.

If lantern is required with fixed light,
Consumption 0.75 cb ft per hour.
Duration of light 60 days.
Price of buoy would be £15 less.

Cost of Oilgas for Buoys, 10 ft, charged to 6 atmospheres 2280 cb ft, cost about £4 - 12 - 0 for 6 months, taking cost of gas @ 40/- per 1000 cb ft, as charged to Auckland Harbour Board by the Railway Department.

Welded transport Storeholder 6'6" dia:
x 20 ft long, capacity 612 cb ft, for a working pressure of 10 atmospheres, with feet and lifting eyes, valves and gauge and protecting cover, sufficient to charge one 10 ft buoy to 6 atmospheres. £203 - 10 - 0.
Drawing N° 1457.

Welded transport storeholder 5'8" dia:
x 22'6" long, capacity 530 ft, for a working pressure of 10 atmospheres, with feet and lifting eyes, valves, gauge, and protecting cover, sufficient to charge one 9 ft buoy to 6 or 7 atmospheres. £170 - 0 - 0.
Drawing N° 1457.

Welded transport storeholder 5 ft dia: x 16 ft long, capacity 300 cbft, for a working pressure of 10 atmospheres, with feet and lifting eyes, valves, gauge and protecting cover, sufficient to charge one 7'6" buoy to 6 atmospheres. £110 - 0 - 0.
Drawing N° 1457.

If any of the above buoys are fitted with automatic lighting and extinguishing clock, the duration of light will be increased 60%. Extra cost, £21 - 7 - 6.

W.H. Hamer Esq.,

July 15th. 1913.

GAS BUOYS LIGHTED BY DISSOLVED ACETYLENE

DRAWING NO. 2817.

PRICES
D/D F.O.B. LONDON.

Welded Buoy 10 ft diameter, with superstructure,
Counterweights, lantern with 200 m/m lens
and flashing apparatus, complete with six
dissolved acetylene cylinders, filled with
gas, and with connections, including
Six spare cylinders filled with gas. £533 - 10 - 0

Illuminating Power 114 candles.
Duration of light with flasher,
characteristic 1:10, 12 months.
Cost of gas for 12 months burning
£7 - 10 - 0.

Welded Buoy 7'6" dia. with ^{simplified} superstructure
Counterweights, lantern with 200 m/m lens
and flasher, complete with three 100 cb
ft cylinders, filled with gas, and
connections, and including
Three spare cylinders, filled with gas. £379 - 0 - 0.

Illuminating power 114 candles.
Duration of light with flasher,
characteristic 1:10, 6 months.
Cost of gas for 12 months burning
about £7 - 10 - 0.

All the above prices are packed for shipment and
Delivered F.O.B. London.

If any of the above buoys are fitted with
automatic lighting and extinguishing clock,
the duration of light will be increased 60%.
Extra cost ... £21 - 7 - 6.

No. 4.

W.H. Hamer Esq.,

July 15th. 1913.

ESTIMATE

OIL GAS LIGHTING.

RANGITOTO BEACON.

Drawing No. 2604, coloured red.

Necessary parts for converting 300
m/m Lantern from Argand burner to
Incandescent.

F.O.B LONDON.

Tool box with spare mantles etc.

£10 - 8 - 0.

Present Illuminating power 80 candles.
Present Consumption 0.75 cb ft per hour.

Illuminating power with Incandescent
burner 334 candles.

Consumption with Incandescent burner
0.50 cb ft

NOTE.

If fitted with automatic lighting and
extinguishing clock, the duration of
light will be increased 60%. Extra
cost will be,

£21 - 7 - 6.

OKAKEI WHARF.

Drawings 2225 and 2545.

Without Superstructure

Lantern to be fixed on present iron structure.

Welded Beacon Holder 5'7" dia: 6 ft high,
capacity 130 cb ft for a working pressure
of 6 to 7 atmospheres with feet, filling
valve and piping.

Lantern with 200 m/m lens, Incandescent,
and flashing apparatus, say 2 seconds
light 4 seconds dark.

Tool box with spare mantles etc.

£162 - 10 - 0.

Duration of light, holder charged to
6 atmospheres, 65 days.

Illuminating power 220 candles.

Consumption 0.5 cb ft per hour.

NOTE.

If fitted with automatic lighting and
extinguishing clock, the duration of
light will be increased 60%, Extra

£21 - 7 - 6.

*See letters
23 Oct/1913
& 2 Feb/1917.*

RANGITOTO CHANNEL BUOYS.

Conversion of Two Wigham Buoys to Incandescent Oilgas.

Drawing No. 2706, Coloured Red.

PRICES
D/D F.O.E. LONDON.

Welded Gasholder 5'7" diameter,
x 9'0" high, with superstructure
and angle iron for fixing to
buoy, complete with ladder,
valve and piping.
Capacity 200 cb ft, for a
working pressure of 6 to 7
atmospheres

Lantern with 200 m/m lens,
Incandescent burner, flashing apparatus,
say 2 seconds light 4 dark.
Tool box. *Apare Mautlesek.*

each £184 - 5 - 0.

Duration of light, holder charged
to 6 atmospheres - 100 days.

Illuminating power 220 candles.

Consumption 0.5 cb ft per hour.

NOTE.

If fitted with automatic lighting
and extinguishing clock, the duration
of light will be increased 60%.

Extra cost,

each £21 - 7 - 6.

W.H. Hamer Esq.,

July 15th. 1913.

OILGAS LIGHTING.

O'Neills Point.

Drawing No 2225 and 2545, without
Superstructure.

Lantern fixed to Post provided by the Auckland Harbour
Authorities.

PRICES
D/D F.O.B. LONDON.

Welded Beacon Holder 5'7" dia: 6 ft
high, with 4 feet, filling valve and
piping, capacity 130 cb ft, for a
working pressure of 6 to 7 atmospheres.

Lantern with 200 m/m lens, Incandescent
burner, flashing apparatus 2 seconds
light 4 dark.

Tool box with spare mantles etc.

£162 - 10 - 0.

Duration of light, holder charged
to 6 atmospheres, 65 days.

Illuminating power 220 candles.
Consumption 0.5 cb ft per hour.

NOTE.

If fitted with automatic lighting and
extinguishing clock, the duration of
light will be increased 60%. Extra,

£21 - 7 - 6.

W.H. Hamer Esq.,

July 15th. 1913.

OILGAS LIGHTING.

ST HELIER'S BAY WHARF.

Drawing No. 2225, but with Lantern 100 m/m lens.

PRICES
D/D F.O.B.LONDON.

Welded Beacon Holder 5'7" dia. 6 ft high, capacity 130 cb ft for a working pressure of 6 to 7 atmospheres, with feet, super-structure, filling valve, piping and ladder.

Lantern with 100 m/m lens, Incandescent burner, flashing apparatus, simple characteristic.

Tool box with spare mantles etc.

£140 - 0 - 0.

Duration of light, holder charged to 6 atmospheres, 65 days.

Illuminating power 120 candles.

Consumption about 0.5 cb ft per hour.

NOTE. If fitted with automatic lighting and extinguishing clock, the duration of light will be increased 60%.
Extra cost,

£21 - 7 - 6.

ALTERNATIVE - Drawing 2062.

Welded Holder 4'2" dia. 5'6" high, capacity 70 cb ft with Lantern etc. as above.

£114 - 15 - 0.

Duration of light 35 days.

Candle power, consumption etc as above.

NOTE. If fitted with automatic lighting and extinguishing clock, the duration of light will be increased 60%.
Extra cost,

£21 - 7 - 6.

No. 8.

W.H. Hamer Esq.,

July 15th. 1913.

OILGAS LIGHTING.

KOHIMARAMA LIGHT.

Drawing 2225.

Existing lantern to be converted.

PRICES
D/D F.O.B.LONDON.

Welded Beacon Holder 5'7" dia. 9 ft high, with 4 feet, superstructure and ladder, filling valve and piping, 200 cb ft capacity, for a working pressure of 6 to 7 atmospheres.

Parts for converting existing 140 m/m lantern to Incandescent.

Tool box with spare mantles etc.

£123 - 0 - 0.

Consumption about 0.75 cb ft per hour with fixed light.

Duration of light about 60 days.

Illuminating power about 150 candles.

NOTE.

If fitted with automatic lighting and extinguishing clock, the duration of light would be increased 60%. Extra cost,

£21 - 7 - 6.

W.H. Hamer Esq.,

July 15th. 1913.

See sheet 16

OILGAS LIGHTING.

MANUKAU HARBOUR.

Drawing 2225

But with Lantern 100 m/m dia; Lens.

PRICES
D/D F.O.B. LONDON.

Welded Beacon Holder 5'7" dia. 6 ft
high, with 4 feet, superstructure,
filling valve, piping and ladder.
Capacity 130 cb ft, working pressure
6 to 7 atmospheres.
Lantern with 100 m/m lens, Incandescent,
flashing apparatus of simple character-
istic.
Tool box with spare mantles etc. £140 - 0 - 0.

Duration of light, holder charged to
6 atmospheres, 65 days.
Illuminating power 120 candles.
Consumption 0.5 cb ft per hour.

NOTE.

If fitted with automatic lighting and
extinguishing clock, the duration of
light will be increased 60%. Extra cost, £21 - 7 - 6.

W.H. Hamer Esq.,

July 15th. 1913.

DISSOLVED ACETYLENE.

RANGITOTO CHANNEL BUOYS.

Conversion of two Wigham Buoys.

PRICES
D/D F.O.B.LONDON.

1 Acetylene cylinder, 200 cb ft capacity,
charged with gas, connecting head, valve
and piping.
300 m/m Lantern, with flashing apparatus. £104 - 3 - 0 ea.

Illuminating power 114 candles.

Duration of light about 40 days with
flasher 1:3.

Duration of light about 120 days with
flasher 1:10.

NOTE.

If fitted with automatic lighting and
extinguishing clock, the duration of light
will be increased 60%. Extra cost.

£21 - 7 - 6.

Spare Acetylene cylinder charged with
gas.

£17 - 10 - 4.

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No. 11.

W.H. Hamer Esq.,

July 15th. 1913.

DISSOLVED ACETYLENE.

O'Neills Point.

Drawing No 3092.

PRICES
D/D F.O.B.LONDON.

Wrought iron chamber for acetylene flask,
with door, and gas connections.
Acetylene cylinder 200 cb ft capacity
filled with gas.
200 m/m Lantern with flashing apparatus. £113 - 10 - 0.

Illuminating power 114 candles.

Duration of light about 40 days with flasher 1:3.

do do 120 days do 1:10.

NOTE.

If fitted with automatic lighting and
extinguishing clock, the duration of light
will be increased 60%. Extra cost, £21 - 7 - 6.

Spare acetylene cylinder charged with
gas. £17 - 10 - 4.

NOTE.

Wood pile structure not included in
our estimate.

No. 12.

W.H. Hamer Esq.,

July 15th. 1913.

DISSOLVED ACETYLENE.

St Helier's Bay Wharf.

Drawing No. 3092, but with 100 m/m dia. Lantern.

PRICES
D/D F.O.B.LONDON.

Wrought iron chamber for acetylene flask,
with door and gas connections.
Acetylene cylinder 200 cb ft capacity
filled with gas.
100 m/m Lantern with flashing apparatus. £73 - 10 - 0.

Illuminating power 60 candles.

Duration of light about 40 days with flasher 1:3.
do do 120 days do 1:10.

NOTE.

If fitted with automatic lighting and
extinguishing clock the duration of light
will be increased 60%. Extra cost, £21 - 7 - 6.

Spare cylinder charged with gas. £17 - 10 - 4.

NOTE.

Wood pile structure not included in above
estimate.

No. 13.

See sheet 11.12
page 9

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W.H. Hamer Esq.,

July 15th. 1913.

DISSOLVED ACETYLENE.

MANUKAU HARBOUR.

Drawing No. 3092 but with 100 m/m dia. Lantern.

PRICES
D/D F.O.B.LONDON.

Wrought iron chamber for acetylene flask,
with door and gas connections.
Acetylene flask 200 cb ft capacity, filled
with gas.
100 m/m Lantern with flashing apparatus. £73 - 10 - 0.

Illuminating power 60 candles.
Duration of light about 40 days with flasher 1:3.
do do 120 days do 1:10.

NOTE. If fitted with automatic lighting and
extinguishing clock, the duration of light
will be increased 60%. Extra cost. £21 - 7 - 6.

Spare cylinder filled with gas. £17 - 10 - 4.

NOTE. Wood pile structure not included
in above estimate.

ALTERNATIVE.

If two acetylene cylinders are supplied
instead of one, the price would be, £95 - 0 - 0.

Duration of light 80 days with flasher 1:3.
do do 240 days do 1:10.

NOTE. if fitted with lighting and extinguishing
clock, the duration of light would be increased
60%. Extra cost, £21 - 7 - 6.

2 Spare cylinders charged with gas. £35 - 0 - 8.

ALL ABOVE PRICES ARE PACKED FOR SHIPMENT AND
DELIVERED F.O.B.LONDON.

WINTSCH'S PATENT LIGHTING COMPANY, LTD.

Hollomley

MANUFACTURERS & EXPORTERS

1913
6
ALL COMMUNICATIONS TO BE
ADDRESSED TO THE COMPANY

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

TELEPHONE N° 1477 LONDON WALL
TELEGRAPHIC ADDRESS, PINTSCH LONDON.
CODES USED, A B C 5TH ED. LIEBERS.
ENGINEERING CODE 2ND EDITION.
BENTLEY'S CODE.



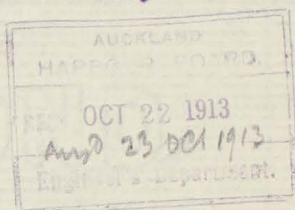
WORKS,
DOVER WHARF,
LIMEHOUSE.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C.

September 9th, 1913.



DOVER 30
W. H. Hamer Esq.,
Auckland Harbour Board.

Buoys lighted by Dissolved Acetylene.

Dear Sir,

With further reference to our estimates of the 15th July,
we herewith enclose revised prices for the above, and we hope to send
you shortly our pamphlet on Coast Lighting by Dissolved Acetylene.

We shall be pleased to give you any further information
you may desire.

Yours faithfully,

PINTSCH'S PATENT LIGHTING COMPANY

J. Alderson

PINTSCH'S PATENT LIGHTING COMPANY

H/H.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

TELEPHONE N° 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH LONDON.
CODES USED, A B C 5TH Ed. LIEBERS.
ENGINEERING CODE 2ND EDITION.
BENTLEY'S CODE.

FRIARS HOUSE,
NEW BROAD STREET,
LONDON, E.C.



WORKS,
DOVER WHARF,
LIMEHOUSE.

September 9th, 1913.

AGENCIES,
BRISBANE,
HOLMES & CHURCH,
272, QUEEN STREET.

Revised.

ESTIMATE

for

GASBUOYS AND BEACONS

LIGHTED BY DISSOLVED ACETYLENE.

BUENOS AYRES,
J. P. BREDIUS,
529, CALLE CUYO.
PERCY GRANT & CO
519, BARTOLOME MITRE.

Drawing No. 3093.

CAIRO,
F. RATCLIFFE,
SHARIA SAFTIEN

WELDED 10ft dia. BUOY.

Packed & D/d
F.O.B. London.

CALCUTTA,
HEATLY & GRESHAM LTD
6, WATERLOO STREET.

With superstructure, counterweights,
Lantern with 200 m/m dia. lens and
flashing apparatus, 6 acetylene
flasks, 100 cb ft. capacity each when
charged to 10 atmospheres, filled with
gas and including all connections,
also 6 spare flasks charged with gas.

£506 - 0 - 0.

MELBOURNE,
WM ADAMS & CO
612-616, COLLINS STREET, (W)

Illuminating power 114 candles.
Consumption 14 litres per hour.
Duration of light with flasher 1:10, 12 months.
do do 1:3 4 months.

SYDNEY,
WM ADAMS & CO LTD
175, CLARENCE STREET.

If buoy is provided with 300 m/m lantern
and flashing apparatus, the price
would be extra £45 - 0 - 0.
Illuminating Power 165 candles.

SHANGHAI,
DODWELL & CO LTD
A. R. BURKILL & SONS.

TOKIO,
A. J. S. LEFROY,
MITSU BISHI BUILDINGS.

WELDED 7' 6" DIAMETER BUOY.

With superstructure, counterweights,
Lantern with 200 m/m dia. lens and
flashing apparatus, three acetylene
flasks, 100 cb ft. capacity each when
charged to 10 atmospheres, and including
gas and all connections, also three spare
flasks, charged with gas.

£372 - 10 - 0.

Illuminating power 114 candles.
Consumption 14 litres per hour.
Duration of light with flasher 1:10, 6 months.
do do 1:3 2 months.

DISSOLVED ACETYLENE.

Revised Estimate.

Packed & d/d
F.O.B. London.

Welded 7' 6" BUOY.

With superstructure, counterweights,
Lantern with 300 m/m lens and
flashing apparatus, three acetylene
flasks 300 cb ft. each when filled
to 10 atmospheres, and including
gas and all connections.

Also three spare flasks charged with gas. £410 - 0 - 0.

Illuminating power 114 candles.

Consumption 14 litres per hour.

Duration of light with flasher
1:10, 12 months.

Duration of light with flasher
1:3 4 months.

NOTE.

300 m/m Lantern is not suitable for 7' 6" dia. BUOY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

J. H. D. D. D.

GENERAL MANAGER & SECRETARY

for Engineer

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Harbourmaster's Office,

23rd September 1913.

The Chairman,
AUCKLAND HARBOUR BOARD.*(Light converted to kerosene gas by Maxwell Sept Oct 15/12)*

Sir,

HARBOUR LIGHTS AND BUOYS

In answer to your memo of the 16th inst. I beg to state that some slight alterations have been contemplated for some time, and the arrival of Lieutenant Jackson's latest chart of Auckland Harbour was awaited before a report was made on same, and I now beg to report as follows:-

Rangitoto Beacon light. An unwatched white occulting Pintsch Gas 56 day light which gives entire satisfaction.

Luminous Buoys Rangitoto Channel. One White Fixed Wigham 28 day Kerosene Light on Buoy Western side of Rangitoto Channel which is entirely satisfactory.
One Green occulting Acetone Gas 56 day Light Buoy on Eastern side Rangitoto Channel which is also entirely satisfactory

Bean Rock Light. This light which was originally a fixed oil light was converted into an unwatched flashing Acetone Gas 70 day Light 330 H.C.P. when taken over by the Board in October 1912. This alteration has been a decided improvement on the old Light, but it is not yet powerful enough for picking up the different sectors when approaching the entrance to the Rangitoto Channel, and I would recommend that the light be increased to 600 H.C.P. An alteration is also necessary in the dividing line of the Green and White sectors Rangitoto Channel.

At present this line cuts on the bearing S 28° E Magnetic which allows the "Duder Spit", which has only 3½ to 4½ fathoms, to extend well into the White fairway sector, but by altering this sector 3°, viz - S 31° E Magnetic, it will place the "Duder Spit" in the Green Sector and the white fairway will then be clear until approaching the fairway buoys.

Devonport Sandspit Buoy I would recommend that a luminous Buoy be placed in the position of the present Buoy, and that it be a red occulting Gas light.

The Board has a spare Buoy in hand, which only requires the lantern and fittings. This spit extends out a considerable distance, and is a very important point in leaving or entering the Harbour, and a luminous Buoy will add considerably to the safety of navigation.

Harbour Light Railway Wharf. An Electric White occulting Light which gives entire satisfaction.

Buoys - Kaipara Shoal Buoy I would recommend that this Buoy be removed as it is of no further use as the Shoal has been removed.

Hope Dock Buoy. With a powerful tug available, there is no further use for this Buoy as it is a source of danger to vessels' propellers moving in this vicinity, and I would recommend that it be removed

Yours faithfully,
signed H.H. Sergeant,
Acting Harbourmaster.

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Increased to 600 C.P. ¹⁵ July 1915
Eng's Ann rept 1 Jan 1916

October 23rd 1913.

Messrs Pintsch's Patent Lighting Co., Ltd.,
Friars House,
New Broad St.,
London, E.C.

England.

Dear Sirs,

BEAR ROCK LIGHT.

Referring to yours of the 15th July and 9th September, I desire to thank you for the information you have been good enough to furnish to me at the request of Mr Saxton, who inspected the lights when here some months ago. For the present we do not desire to make any alteration in any of the lights except Bear Rock Lighthouse, and I would be much obliged if you would quote a price for your apparatus necessary to convert this into a 600 candle power occulting light on your incandescent system.

The particulars of this light are at present - Compressed Acetone Gas, occulting light, 1 second light, 4 seconds dark, manufactured by the Aga Gas Accumulator Co, of Stockholm, of 330 Heffner candle power, in a 360 m/m polished cut glass lens at a height of 50 ft above high water, visible at 10 miles.

Your price is to be for the necessary gas holder, connections to lamp, and for the lamp and flasher and connections to charging tap. I do not need a lens for this light as that is already there.

This Lighthouse is many years old, and the light is thoroughly sheltered and protected in a room at the top of the structure. This Board has just taken this light over from the Government.

I wish to make the conversion as simply as possible on your incandescent system.

The inside diameter of the present dioptric lens is about 14", and the diameter over the flanges of the flashing apparatus is 6". I have no drawings of the lighthouse or the gear.

Your gas cylinder could be stored in one of the several rooms at the lighthouse, and a charging pipe lead down to a convenient place for the charging cylinder to lie at. The gas cylinder would have to pass through a doorway opening say 2'-11". I would like the gas cylinder for not less than 60 days supply.

LANCITOTO BEACON.

I have written to our Secretary asking him to order through our London agents, the necessary parts for converting the above beacon into an incandescent burner at a cost of £10/3/0, f.o.b. London, as per your quotation of July 15th. You give the present illuminating power as 80 candles and the improvement by incandescent mantle as 334 candles. Will you please advise me whether this candle power is measured at the burner or at the lens. I take it to be at the burner, and if so would you give me the value of the increased candle power through the lens. I do not at present propose to install a lighting and extinguish clock at the beacon, though I may do so in future. On our smaller outlying wharves we have had to discard the clock, as by the vibration from the bumping of the vessels calling at the wharves the mechanism gets ^{out} out of action.

DEVONPORT SANDSPIT.

It has been decided to erect a beacon on this spit with a red occulting light, on your incandescent gas system, and I propose to do it somewhat on the lines of your drawing No. 3,092 accompanying your letter of 15th July, with the difference that ours will be Pintsch gas

not dissolved Acetylene. The focal plane will be about 10 ft above high water, and I think it would be sufficient if the candle power at the light were about 75 ^{or 100} and the lens an ordinary red pressed and not a polished glass lens. Your price to include all parts except the timber pile structure. Your price is also to include a spare red pressed glass lens and a number of spare incandescent mantles. If the protection for the cylinder on top of the pile beacon can easily be made here, please do not include it in your price. I do not wish it to have an automatic lighting and extinguishing clock. The flashing apparatus will be timed for about 2 seconds light and 6 seconds dark, but this is not finally settled. **The gas cylinder, if not too cumbersome, to hold about 60 days supply.** Please reply as soon as possible giving code words by which we can order by cable through our London agents. State in your quotation the time in which you can guarantee delivery f.o.b. London.

Your quotations are to include a full set of spares, and any special tools, if these are necessary.

Yours truly,

ENGINEER TO THE BOARD.

P.S. I enclose herewith a rough pencil sketch of Bean Rock lantern room and a photo, both of which I have had hurriedly made.

Later. The photo, I find, cannot be prepared in time for this mail but will follow later. - by next mail.

6096

November 5th 1913.

Messrs Pintsch's Patent Lighting Co., Ltd.,
Friars House,
New Broad St,
London. E.C. England.

Dear Sirs,

BEAN FOCK LIGHT.

Referring to my letter of the 23rd ult., I herewith
send you the photograph of above as promised in the postscript to my
letter.

Yours truly,

ENGINEER TO THE BOARD.

696

November 20th 1913.

This light is exactly similar to

RANGITOTO BEACON LIGHT

and others in the Auckland Harbour.

It burns the compressed gas of shale oil.

It is known as an occulting light, that is, the light appears and disappears.

It is automatic in its action, and will last until its gas supply is exhausted without any attention whatever.

The Rangitoto Beacon Light burns for two months, and could be made to burn even for years.

Gas under a pressure of lbs per square inch is pumped into a cylinder.

From this cylinder the gas passes by a small pipe to the flashing apparatus and enters on the under side of a diaphragm of soft leather.

The pressure of gas raises this soft leather, which has a small hook attached to its under side.

When this hook commences to rise it closes the pipe leading to the light and opens the pipe that allows the gas to pass from the gas cylinder to the under side of the leather.

When the chamber is filled with gas and the leather has been lifted as much as possible, the gas supply is cut off from the cylinder and the pipe is opened leading past the small pilot light, where it ignites and causes a light, which continues until the quantity of gas under the leather has been consumed.

As the gas is consumed at the light the leather falls back to its original position and the period of darkness commences.

There is a spring on the top of the leather to press it downward as the gas is consumed.

This operation is automatically repeated.

The period of light and dark can be regulated as required.

Coloured lights are obtained by means of coloured shades between the burner and the lens.

Mr Muller is working a card like this for exhibition

ALL COMMUNICATIONS TO BE
ADDRESSED TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

TELEPHONE N° 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH, LONDON.
CODES USED, A B C 5th Ed. LIEBERS
ENGINEERING CODE 2nd EDITION.
BENTLEY'S CODE

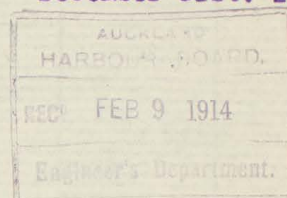


WORKS,
DOVER WHARF,
LIMEHOUSE.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C. December 31st. 1913.



W.H. Hamer Esq.,

Auckland Harbour Board.

Dear Sir,

Bean Rock & Devonport Sandspit.

With further reference to your enquiry of the 23rd. October, we now have the pleasure of enclosing our estimate for converting Bean Rock to Incandescent Oilgas, and for Oilgas Apparatus for Devonport Sandspit.

For the latter beacon we have quoted for a 200 m/m lantern, and also for alternative for lantern with 100 m/m lens, and in both cases ground and polished lenses built up in segments with red glass cylinders, which is our usual and standard practice.

We have gone into the matter of pressed lenses, but regret that as there are none on the market to our standard sizes, the interior of the lantern would have to be re-designed, and the result would be that the saving would amount to about £2 - 0 - 0 in the 100 m/m size, and about £3 in the 200 m/m size.

You will notice that we have arranged for three cylinders of our brazed type for Bean Rock, in order to get them through the existing doorway of the lighthouse, which

No. 2.

AUCKLAND HARBOR BOARD.
RECV FEB 9 1914
Engineering Department.

W.H. Hamer Esq.,

December 31st. 1913.

would not be possible if one holder only of the capacity required was used.

For Devonport Sandspit the drawing sent No. 1770 shows the beacon holder on a masonry bed, but of course a pile platform as you propose to erect would be quite suitable.

We have allowed in each case for full 60 days burning.

We shall be pleased to receive your order, or to give you any further information you may desire.

Yours faithfully,

PINTSCH'S PATENT LIGHTING COMPANY, LTD.

Shook Payton
ENGINEER

S/P.



24

ALL COMMUNICATIONS TO BE
ADDRESSED TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

TELEPHONE N° 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH LONDON.
CODES USED, A. B. C. 5TH Ed. LIEBERS.
ENGINEERING CODE 2ND EDITION.
BENTLEY'S CODE.

FRIARS HOUSE,
NEW BROAD STREET,

LONDON, E.C. December 31st. 1913.



WORKS,
DOVER WHARF,
LIMEHOUSE.

AGENCIES,
BRISBANE,
HOLMES & CHURCH,
272, QUEEN STREET.

BUENOS AYRES,
J. P. BREDIUS,
529, CALLE CUYO.
PERCY GRANT & CO. LTD.
25 DE MAYO N° 158.

CAIRO,
F. RATCLIFFE,
SHARIA SARTIEN.
CALCUTTA,
HEATLY & GRESHAM LTD.
6, WATERLOO STREET.

MELBOURNE,
W. ADAMS & CO.
612-616, COLLINS STREET (W).

SYDNEY,
W. ADAMS & CO. LTD.
175, CLARENCE STREET.

SHANGHAI,
DODWELL & CO. LTD.
A. R. BURKILL & SONS.

TOKIO,
A. J. S. LEFRDY,
MITSU BISHI BUILDINGS.

AUCKLAND HARBOUR BOARD.

Devonport Sandspit Beacon.

Lighted by Compressed Oil Gas.

Drawing No. 1770.

1 Gasholder welded throughout 5'7" dia. 6'6" high, with 4 feet, gallery, railing, stool for lantern, 4 anchor bolts, ladder. Working pressure 6 to 7 atmos. and tested to a pressure of 12 atmospheres. Capacity 150 cb ft.

1 Lantern with 200 m/m dia. lens, Incandescent burner, flashing apparatus, 2 seconds light, 6 dark, with red glass cylinder.

1 Spare flasher.
1 Spare lens.
3 Red cylinders.
50 Mantles.

1 Box containing 12 incandescent mantles, protecting cages and necessary tools for keeping the burner in order.

Illuminating power 220 candles.
Duration of light about 80 days.

ALTERNATIVE.

1 Gasholder 5'7" dia. 6'6" high as above, but with 100 m/m dia. lens, incandescent burner, flashing apparatus, spare flasher etc. and tool box as above.

£162 - 0 - 0.

Illuminating power 100 candles.
Duration of light about 80 days.

1 Filling hose 60 ft long with couplings and gauges,

£12 - 10 - 0.

Order I. 200
this - see 1882 serial
15 Dec 1914
See order to Pinst. 2/12/14

make the 4 darts.
add sum value.

comp for open flasher not required

F.O.B. London. X

£208 - 13 - 0.

18 - 0 - 0
193 - 0 - 0

PINTSCH'S PATENT LIGHTING COMPANY, LTD.

Shook Saylor
ENGINEER.

ALL COMMUNICATIONS TO BE
ADDRESSED TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C. December 31st. 1913.

TELEPHONE N° 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH. LONDON.
CODES USED, A. B. C. 5th Ed. LIEBERS.
ENGINEERING CODE 2nd EDITION.
BENTLEY'S CODE.



WORKS,
DOVER WHARF,
LIMEHOUSE.

AGENCIES.

BRISBANE,
HOLMES & CHURCH,
272, QUEEN STREET.

BUENOS AYRES,
J. P. BREDIUS,
529, CALLE CUYO.
PERCY GRANT & CO. LTD.
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6, WATERLOO STREET.

MELBOURNE,
W. ADAMS & CO.
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SYDNEY,
W. ADAMS & CO. LTD.
175, CLARENCE STREET.

SHANGHAI,
DODWELL & CO. LTD.
A. R. BURKILL & SONS.

TOKIO,
A. J. S. LEFROY,
MITSU BISHI BUILDINGS.

AUCKLAND HARBOUR BOARD.

Conversion of Bean Rock Beacon to

Compressed Oilgas Lighting.

Drawing 3169.

Duration of light about
60 days.

1 Combined flasher & regulator with
incandescent burner and stand, 1½ sec
light, 3½ seconds dark. Illuminating
power about 800 candles with a
pressure of 1500 m/m.
Consumption with the above characteristic
0.5 cb ft. per hour.

3 Gasholders, brazed, 30" dia. 8 ft high,
with 4 feet, handhole and cover, for
a working pressure of 7 to 8 atmos.

All necessary valves, gauges and piping.

- 1 Spare flasher and regulator.
- 10 Glass globes.
- 50 Incandescent mantles, packed
10 in a box.
- 1 Box containing spare mantles etc. and
necessary tools for keeping the burner
in order.

F.O.B. London. X
£155 - 0 - 0.

If lighting and extinguishing clock is
provided and spare ditto. the extra
price would be,
The duration of light would be
increased by about 60%.

£42 - 15 - 0.

1 Filling hose 60 ft long with
couplings and gauges.

£12 - 10 - 0.

PINTSCH'S PATENT LIGHTING COMPANY, LTD.

Shook Payton
ENGINEER

RICHARDSON, McCABE & CO.

LIMITED.

INCORPORATED IN N.Z.

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.
P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 10th. February 1914.

AUCKLAND
HARBOUR BOARD.
REC'D FEB 12 1914
Engineer's Department.

696

Sir,

PINTSCH'S PATENT LIGHTING CO. LTD - BEAN ROCK
AND DEVONPORT SANDSPIT.

Messrs. Pintsch's Patent Lighting Co. Ltd.,

have sent to us copy of their letter to you of 31st. December and should you desire any further information and will let us know, we will have pleasure in at once passing same on to you.

*For Pintsch
lighting Co's
specification
re see file
696.*

We have also received copies of Drawings No. 3169 referring to Bean Rock Beacon and No. 1770 referring to Gas Beacon for Devonport Sandspit, and if these would be of any service to you, we will be pleased to pass them on.

We have the honour to be,

Sir,

Your obedient servants,
RICHARDSON McCABE & CO. LTD.
Altan McCabe Director.

W. H. Hamer Esq.,

Harbour Engineer,

AUCKLAND N.Z.

February 12th 14.

Messrs Richardson, McCabe & Co, Ltd,
Wellington.

Dear Sirs,

PINTSCH CO. - BEAN ROCK & DEVONPORT SANDSPIT LIGHTS.

Referring to yours of the 10th inst., I have received all the information I require at present, and I have replied to Messrs Pintsch & Co stating that as the annual estimates had already been made up the matter would have to be deferred for some time, and I will then communicate with them again.

Yours truly,

ENGINEER TO THE BOARD.

If there is any further information you desire, and will let us know, we will have pleasure in sending same to you at the earliest possible moment.

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Arthur W. McCabe Director.

The Engineer,

Auckland Harbour Board,

AUCKLAND N.Z.

RICHARDSON, McCABE & CO.

LIMITED.

UFM/RR.

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.
P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 9th. April 1914.

696

Sir,

SPECIFICATION FOR OIL GAS WORKS, PINTSCH'S
PATENT LIGHTING CO. LTD.

We have pleasure in attaching herewith
original specification dated ^{7th Jan. 3rd} January 3rd. 1914, also
blue print No. 1510 accompanying same, from the above
Firm regarding Oil Gas Works capable of producing
and compressing 2,000 cubic feet of gas per day of
12 hours.

If there is any further information you
desire, and will let us know, we will have pleasure
in sending same to you at the earliest possible moment.

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Alvan McCab Director.

The Engineer,

Auckland Harbour Board,

AUCKLAND N.Z.

October 15th 1914.

Messrs Richardson, McCabe & Co, Ltd,
WELLINGTON.

Dear Sirs,

PINNSCH LIGHTING CO.

I have this Company's circular letter of the 21st August stating that their connection with Germany was at an end. I am glad to hear of this, as everything that we buy must be certified to be of British manufacture.

INGERSOLL RAND CO.

I have received pamphlet which you had forwarded on Panama Canal, for which I thank you. While we know that these drills are good ones, we shall as far as possible take only British make.

Yours truly,

ENGINEER TO THE BOARD.

quoting on your requirements, and assuring you
of our best services,

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Walter McCabe
Director.

The Engineer,

Auckland Harbour Board,

AUCKLAND N.Z.

Walter McCabe
Richardson
McCabe
26/10/14

690

Sir,

**INCANDESCENT OIL GAS LANTERNS AND
LANTERNS FOR ACETYLENE.**

Messrs. Pintsch's Patent Lighting Co. Ltd.,

London, have sent to us prices in connection
with lanterns either with or without flashes,
and we shall be glad to let you have quotations
any time you are in the market.

Trusting we may have an opportunity of
quoting on your requirements, and assuring you
of our best services,

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Walter McCabe
Director.

The Engineer,

Auckland Harbour Board,

AUCKLAND N.Z.

Handwritten notes:
26/1/11
Richardson
McCabe & Co.
Ltd.

December 10/14.

Messrs Richardson, McCabe & Co., Ltd,
11, Grey St,
Wellington.

Dear Sirs,

INCANDESCENT OIL GAS LANTERNS AND LANTERNS FOR
ACETYLENE.

Referring to yours as above, we would be glad to have any detail prices of lighthouse gear supplied by Messrs Pintech, and particularly of some sun valves for automatically adjusting the light, as I am considering this at the present moment.

Yours truly,

ENGINEER TO THE BOARD.

27

February 12th 14.

Messrs Pintsch's Patent Lighting Co., Ltd,
Friars House,
New Broad St,
London. E.C.

Dear Sirs,

BEAN ROCK & DEVONPORT SANDSPIT.

I beg to thank you for yours of December 31st.

As there has been some little delay and our annual estimates had been made up, the Chairman states that these items must now stand over for some time. I am much obliged to you for the information you have supplied and later on, when we are in a position to proceed with the work, I will communicate with you again.

At present it seems to me that the gas holder you suggest for Devonport Sandspit is unduly large. Would it not be better to make this either for a 30 day light, or to have, say, 3 cylinders of smaller diameter than 5' -7"?

Yours truly,

ENGINEER TO THE BOARD.

ALL COMMUNICATIONS TO BE
ADDRESSED TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C. March 19th. 1914.

TELEPHONE NO. 477 LONDON WALL
TELEGRAPHIC ADDRESS, PINTSCH-LONDON
CODES USED, A.B.C. 5TH Ed. LIEBERS.
ENGINEERING CODE 2ND EDITION.
BENTLEY'S CODE.



WORKS,
DOVER WHARF,
LIMEHOUSE.

AUCKLAND
HARBOR BOARD.
REC'D APR 27 1914
Engineer's Department.

W. H. Hamer Esq.,
Auckland Harbour Board,
New Zealand.

(Quotation)

Dear Sir,

DEVONPORT SANDSPIT.

We are in receipt of your letter of the 12th. ^{inst.},
for which we are much obliged, and note all you say.

With regard to providing a smaller holder, we would
suggest one welded holder 4'2" dia. x 5'6" high, as shown on
enclosed drawing No. 2062, and which would maintain the light
for about 40 days.

We have the pleasure to enclose our estimate for such
a beacon holder with a 200 m/m Incandescent lantern, drawing
No. 2545, or with a 100 m/m lantern No. 3214

We also enclose an alternative estimate for a beacon
with three light brazed holders of a sufficient capacity to
maintain the light for about 60 days, as requested, and which
we trust is what you require.

Yours faithfully,
PINTSCH'S PATENT LIGHTING COMPANY, LTD.

Shorrock
ENGINEER

H/P.

Shorrock
ENGINEER

I Spinks
263
40
2545
3214
handed to
Drawing Office
D.O. file
B638 l.m.n



COMMUNICATIONS TO BE
MADE TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

TELEPHONE N° 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH LONDON.
CODES USED, A. B. C. 5TH Ed. LIEBERS.
ENGINEERING CODE 2ND EDITION.
BENTLEY'S CODE.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C. March 19th. 1914.



WORKS,
DOVER WHARF,
LIMEHOUSE.

AGENCIES,

BRISBANE,
HOLMES & CHURCH,
272, QUEEN STREET.

BUENOS AYRES,

J. P. BREDIUS,
529, CALLE CUYO.
PERCY GRANT & CO^{LTD}
25 DE MAYO N° 158.

CAIRO,

F. RATCLIFFE,
SHARIA SAFTIEH.

CALCUTTA,

HEATLY & GRESHAM L^{TD}
6, WATERLOO STREET.

MELBOURNE,

W^M ADAMS & CO^S
612-616, COLLINS STREET, (W)

SYDNEY,

W^M ADAMS & CO^S L^{TD}
175, CLARENCE STREET.

SHANGHAI,

DODWELL & CO^{LTD}
A. R. BURKILL & SONS.

TOKIO,

A. J. S. LEFROY,
MITSU BISHI BUILDINGS.

ALTERNATIVE.

AUCKLAND HARBOUR BOARD.

DEVONPORT SANDSPIT.

3 Brazed Gasholders 30" dia. x 8 ft high,
with feet, total capacity 120 cb ft,
for a working pressure of 6 to 7 atmos:
with necessary valves and piping.

1 Lantern, 200 m/m dia. lens, Incandescent
burner, flashing apparatus 2 seconds
light 6 dark, with red glass cylinder,
drawing No. 2545.

1 Box containing 12 incandescent mantles,
protecting cages and necessary tools
for keeping the burner in order.

1 Spare flasher.

1 Spare lens.

3 Red cylinders.

50 Mantles.

F.O.B. London.

£157 - 15 - 0.

Illuminating power 220 candles.
Duration of light with holder
charged to 6 atmospheres, about
70 days.

If fitted with small lantern with 100
m/m dia. lens drawing No 3214,
otherwise as above, the price of the
apparatus would be,

£111 - 10 - 0.

Illuminating power 100 candles.

PINTSCH'S PATENT LIGHTING COMPANY, LTD.

Shook Payton
ENGINEER

INSTRUCTIONS TO BE
SENT TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

FRIARS HOUSE,
NEW BROAD STREET,

LONDON, E.C. *March 19th, 1914.*

NO. 1477 LONDON WALL.
ADDRESS, PINTSCH, LONDON.
REGISTERED A.B.C. 5TH ED. LIEBERS.
POSTAL NUMBERING CODE 2ND EDITION.
PANTLEY'S CODE.



WORKS,
DOVER WHARF,
LIMEHOUSE.

AGENCIES.

BRISBANE,
HOLMES & CHURCH,
272, QUEEN STREET.

BUENOS AYRES,
J. P. BREDIUS,
529, CALLE CUYO.
PERCY GRANT & CO. LTD.
25 DE MAYO N° 158.

CAIRO,
F. RATCLIFFE,
SHARIA SAPIEH.

CALCUTTA,
HEATLY & GRESHAM LTD.
6, WATERLOO STREET.

MELBOURNE,
W. ADAMS & CO.
612-616, COLLINS STREET (W)

SYDNEY,
W. ADAMS & CO. LTD.
175, CLARENCE STREET.

SHANGHAI,
DODWELL & CO. LTD.
A. R. BURKILL & SONS.

TOKIO,
A. J. S. LEFROY,
MITSU BISHI BUILDINGS.

AUCKLAND HARBOUR BOARD.

DEVONPORT SANDSPIT.

Drawing 2062

- 1 Welded Beacon holder 4'2" dia. x 5'6" high, 70 cb ft capacity, with superstructure, working pressure 6 1/2 7 atmospheres, complete with valves and piping, and ladder.
- 1 Lantern 200 m/m dia. lens, Incandescent burner, flashing apparatus 2 seconds light & dark, with red glass cylinder, drawing No. 2545.
- 1 Tool box containing 12 incandescent mantles, protecting cages and tools for keeping the burner in order.
- 1 Spare flasher.
- 1 Spare lens.
- 3 Red cylinders.
- 50 Mantles.

make 200 lb. rep. dark.

F.O.E. London.

£181 - 15 - 0.

Duration of light with holder charged to 6 atmospheres, 40 days.
Illuminating power 230 candles.

If fitted with small lantern with 100 m/m dia. lens, drawing No 3214, otherwise as above, the price of the apparatus would be,

£135 - 10 - 0.

Illuminating power 100 candles.
Duration of light about 40 days.

PINTSCH'S PATENT LIGHTING COMPANY, LTD.

Shork Sayton
ENGINEER

April 27th. 1914.

Messrs. Pintsch's Patent Lighting Co. Ltd.,
Friars House,
New Broad St,
LONDON. E.C.

DEVONPORT SANDSPIT.

Dear Sirs;

I am in receipt of your favour of the 19th. ult.,
giving information required, for which I thank you.

I shall make use of the particulars you give me,
and will communicate again when the matter is placed upon
the estimates of this Board.

Yours truly,

ENGINEER TO THE BOARD.

Dean Rock Light
Conversion to oil Gas Lighting

See Fintock's letters Dec 31st 1913 file 696.

Fintock's quotation for 60 day light of 800 C.P. with flasher & regulator, 3 gas holders valves gauges & piping spare globes & mantles J.B.B. London	L. s. d. 155. 0. 0
---	-----------------------

60 ft filling hose	12. 10. 0
<u>J.B.B. London</u>	<u>167. 10. 0</u>

Duty Free

S freight Ins &c	Day	16. 15. 0
Handling Wharf to lighthouse	Day	5. 0. 0
Installation at - do -	Day	<u>25. 0. 0</u>
<u>Erected</u>	L	<u>214. 5. 0</u>

Devonport Sandspit

L. s. d.

Duntch's Quotation Mar 1914 file 696 70 day light of 220 C.P. 3 Gas holders (brayed) Valves, Gauges, piping Spare globes & mantles	157. 15. 0 194. 0. 0 (J.B.B. London)
---	--

*Moved 15/12/14
 in the letter 3/1/15*

*See Richmond
 M. Case
 letter 2/1/15*

S freight Insurance &c (pay 10%)		15. 15. 0
Handling Wharf to Sandspit	Day	5. 0. 0
Installation at - do - ^(at Sandspit) at dolphin	Day	50. 0. 0
Towers (Iron) if necessary		25. 0. 0
<u>Duty Free</u>	L	<u>389. 15. 0</u>

*Now file one
 under last -*

If the above were made 100 C.P. the cost wd be
 £ 46 less therefore ~~258. 15. 0~~ ^{409. 15. 0} less 46 = £ ~~212. 15. 0~~ ^{363. 15. 0}

add 20 for sundries.
 £ 328. Total £ 411

Alternative
 £ 363/15/0
 £ 264/10/0

Light House North Head Manakau

Annual Cost of running present oil lamps

actual cost for 2 years when in use as £184

		Per Annum
Lighthouse keeper		156. 0. 0
Oil for light 250 galls	@ 10 ³ / ₄	11. 14. 0
Stores, cleaning &c	say	5. 0. 0
Coal 3 Tons	say @ 25/-	3. 15. 0
Repairs to light keepers house	say	5. 0. 0
Launch trips one per month	@ 2/-	24. 0. 0
Interest & Dep'n on House	say 5% on £300	15. 0. 0
		<hr/>
		£ 219. 19. 0

(No hit or dep'n on installation of light gear which cost the R.M.S. nothing being taken over from Govt.)

See sheet later dated 30/5/16

Suggested conversion of above to Lintak Gas (Unattended Light)

see Lintak's lett of July 16/13 file 696 page 9 (we have allowed more)

		Per Annum
Installation of ^{two} light	say £400 @ 5% =	20. 0. 0
<small>(Kiosks for these lights & towers are already there)</small>		
Cost of running	say same as Rugetoto Beacon	70. 0. 0
Maintenance of towers &c	say	10. 0. 0
Launch trips	say (12 @ 2/-)	24. 0. 0
Allow for structural alterations & erect lights	(was 10%)	10. 0. 0
		<hr/>
		£ 134. 0. 0

We should require a Cutter or barge & large gas cylinder as reservoir there is at present no means of charging this gas at Onchemps

See further on 26th May 1916 for further cost

Levansport Sandspit Alternative

Using our spare Wigham kerosene light

All we would then require would be £ →		
1 burner as spare	Say	10.0.0
10 Ruby Chimneys	-	3.0.0
(old) Timber dolphin derrick	-	50.0.0
Tower on dolphin	-	10.0.0
Transport to site		1.5.0.0
	Say	£ 80.0.0

But we would not then have any spare Wigham parts.

This is a
fixed high
not suitable.

Auckland Harbour Board.

MEMORANDUM.

FROM

Harbourmaster's Office,

ONEHUNGA.

To

The Engineer

Onehunga, 9th Nov 1914

A. H. B.

17808

Sir,
I have the honour to report, that, the amount of oil consumed at Franckean North Head Lights from 1st August 1913 to 31st July 1914 was 235 1/2 fathoms, and for the same period the amount of coal landed was 3 tons.

I have the honour to be,

Sir,

Your obedient servant

R. A. Hobbs.

Harbourmaster.

Handwritten text, possibly a name or title, at the top of the page.

Handwritten text, possibly a date or location, below the top line.

Handwritten text, possibly a name or title, in the middle section.

Handwritten numbers: 140, 41, 41, 41.

Handwritten numbers: 2-5, possibly indicating a page or section number.

Handwritten scribbles or numbers in the bottom left corner.

Handwritten number 140 in the bottom center.

December 21st 14.

Messrs Richardson, McCabe & Co, Ltd,
Wellington.

Dear Sirs,

PINTSCH LIGHTING CO.
DEVONPORT SANDSPIT BEACON.

Their drawing No. I770 (our B.638.k.)

Their letter of December 31st 1913.

Enclosed please find order No. I.200 for apparatus as above. You will note I have left out four anchor bolts, ladder and one spare flasher, for which there will be corresponding reduction from the £208/13/0, f.o.b. quoted in their letter.

I wish the character of the light to be - 2 seconds light and 4 dark (not 6 dark as quoted)

In addition I wish the patent 'Dalen' Sunvalve suitable for this size of light to be fitted (& full detail instructions re adjusting to be forwarded.

I have decided to take the large gasholder and not the smaller alternatives about which I wrote them.

RANGITOTO BEACON.

The Pintsch Co supplied this light about 10 years ago. *They* have recently converted it into incandescent.

I now wish to attach a patent 'Dalen' Sunvalve.

Please supply one suitable to this size of light, with full instructions, as soon as possible.

Please note the order is urgent and should be sent out very safely packed at earliest moment.

Nothing of German or Austrian manufacture will be accepted.

Yours truly,

ENGINEER TO THE BOARD.

see A. Mc C. letter 27/7/15. stating that Pintsch report that the Swedish maker stated the sun valve would not work satisfactorily with oil gas

RICHARDSON, McCABE & CO.

LIMITED.

CER/TM

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.
P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 22nd December, 1914.

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Sir,

PINTSEH LIGHTING CO. - DEVENPORT SANDSPIT
BEACON.

RECEIVED
DEC 24 1914

We are obliged for your favour of 21st December enclosing order No. I.200 and we are communicating this to the Company with instructions for urgent delivery. We are also drawing their attention to the necessity for careful packing and also to the last paragraph in your letter advising us that nothing of German or Austrian manufacture will be accepted. You are we know aware that Messrs. Pintsch Company are now manufacturing in the United Kingdom all goods sold by them.

With regard to the price quoted in December 1913, we presume this holds good and have no doubt that the Pintsch Lighting Company will accept the business on that basis.

We have the honour to be

Sir,

Your obedient servants,

RICHARDSON McCABE & CO., LD.,

Richardson

Director.

W.H. Hamer, Esq., M.Inst.C.E.,
Engineer,

Auckland Harbour Board,

AUCKLAND. N.Z.

December 23rd 14.

Messrs Richardson, McCabe & Co, Ltd,
WELLINGTON.

Dear Sirs,

PINTSCH LIGHTING.

Referring to mine of the 21st inst, it has occurred to me that you may not have a copy of Messrs Pintsch's letter to me of the 31st December 1913. I therefore enclose copy herewith. I have struck out in red the portions I do not require to be sent out.

You will notice that this is a red light and three red cylinders are to be provided. I mentioned to you that I wanted the dark period altering from 6 seconds to 4 seconds.

Yours truly,

ENGINEER TO THE BOARD.

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RICHARDSON, McCABE & CO.

LIMITED.

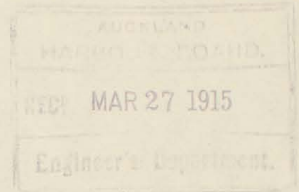
UFM/RR

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.

P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 24th. March, 1915



Sir,

DEVONPORT SANDSPIT BEACON AND RANGITOTO BEACON.

Messrs. Pintsch's Patent Lighting Co.Ltd.,

in their letter of the 5th. February write to us as follows -

"We are in receipt of your letter of the 22nd. December and acceptance from the Auckland Harbour Board for Oil Gas Apparatus for Beacon, to our Drawing No.1770 also for 2 Sun Valves for which we are much obliged. We note that the spare Flasher, Anchor Bolts and Ladder are not required. Particulars and prices of the Sun Valves will be sent you in due course.

Letter K 559
Order I 200

"With regard to the price of £208:13:0 quoted for the Beacon Holder, Lantern etc. a reduction of £15:0:0 will be made for not supplying a spare flasher. We regret however, that we are unable to make any allowance for the Anchor Bolts and Ladder which are not required owing to the increase in the cost of raw material since our quotation was made and the cost of bolts and nuts and ladder does not compensate us for the extra prices we have to pay for plates etc. However, we will invoice the Beacon @£208:13:0 less £15:0:0 for spare flasher not required = £193:13:0. The whole of the gas apparatus will be made in this country."

Noted

Trusting the above is of interest, and assuring you of our best services at all times,

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.
Walter McCabe
Director,

Made Mar 24/15. (K537).
asking for memo of above

The Engineer,

Auckland Harbour Board,

AUCKLAND.

March 24th 1915.

Messrs Richardson, McCabe & Co, Ltd.,
WELLINGTON.

Dear Sirs,

ORDER I.200

Referring to the apparatus for altering
Devonport Sandspit Beacon, and the "Dalen" patent Sunvalve
for Rangitoto Beacon, I remarked at the foot of the order
that these fittings were urgently required, and as three
months have now elapsed since the order was placed I think
it is quite time we had some news from you as to delivery.

Will you please let me know what the position
is by return of post.

Yours truly,

ENGINEER TO THE BOARD.

RICHARDSON, McCABE & CO.

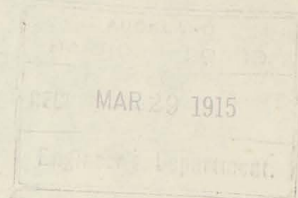
LIMITED.

UFM/KK

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.
P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 26th March, 1915.



Sir,

DEVONPORT SANDSPIT BEACON AND
RANGITOTO BEACON.

We beg to acknowledge receipt of your letter of the 24th March, and wrote you on that date covering copy of the last letter we had received from Messrs. Pintsch's Patent Lighting Co. Ltd.

We have taken the matter up by cable with Messrs. Pintsch's and will let you know just as soon as we have their reply.

Assuring you of our best services at all times,

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.,

William McCabe
Director.

The Engineer,

Auckland Harbour Board,

AUCKLAND.

RICHARDSON, McCABE & CO.

LIMITED.

UFM/RR

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.

P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 29th. March 1915

APR 1 1915

Engineers & Surveyors

Sir,

On the 25th. March we cabled to Messrs. Pintsch's Patent Lighting Co. Ltd., London asking whether your order for Devonport Sandspit Beacon and Dalen Sunvalve had been, or would be shipped, and are this morning in receipt of their cable reading as follows -

"Have not shipped order Holder nearly
"complet but experiments necessary for
"providing clock for Lamps.
"Refer to our letter of 15th. ultimo
"will ship as early as possible.

In connection with their letter of 15th. ult. referred to in the above cable, this has not yet come to hand but just as soon as same reaches us we will forward a copy to you.

Assuring you of our best attention,

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.,

Walter McCabe Director.

The Engineer,

Auckland Harbour Board,

AUCKLAND N.Z.

RICHARDSON, McCABE & CO.

LIMITED.

UFM/RR

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.

P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z. 6th. April 1915.

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I-200 of sec 21.

Sir,

ORDER NO. 7 - DEVONPORT SANDSPIT BEACON.

Referring to our letter of the 29th. March,
Messrs. Pintsch's Patent Lighting Co. Ltd., in their
letter of February 15th. write to us as follows -

"We are in receipt of your letter of the 31st.
"December for which we are obliged, and in
"reply beg to say we have already noted that
"the 4 Anchor Bolts, Ladder and Spare Flasher
"are not required, and we wrote you regarding
"these on the 5th. inst. We also note that
"the dark period is to be altered from 6 seconds
"to 4 seconds.
"We are enclosing Drawing No. 3361 shewing the
"general arrangement of the Gasholder and Lantern.
"With regard to the 2 Sun Valves, we now find
"that we are unable to quote for them, but
"would suggest as an alternative a clockwork
"mechanism with which we are now experimenting
" and will send you particulars shortly.
"You will notice that the Holder is shewn in
"the drawing 5'6" x 7'0" instead of 5'7" x 6'6"
"as quoted for, the reason for this being that
"the 5'6" was a size we could get our plates to
"better advantage than 5'7" as it made a difference
"in the delivery time. The capacity will be the
"same in either case, and we trust this will meet
"the approval of Mr. Hamer".

not reqd.

We enclose herewith Drawing No. 3361 referred
to, and will be glad to furnish you with any further
information desired.

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Alan McCabe
Director.

W. H. Hamer Esq.,

Harbour Engineer,

AUCKLAND, N.Z.

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April 8th 1915.

Messrs Richardson, McCabe & Co, Ltd,
11, Grey St,
WELLINGTON.

Dear Sirs,

BEACON, DEVONPORT SANDSPIT - ORDER I.200

I have yours of the 6th inst. quoting letter from Messrs Pintsch & Co and enclosing blueprint of their drawing No.3361 shewing that the holder will be 5' - 6" x 7' - 0" instead of 5' - 7" x 6' - 6". This will be satisfactory.

I cannot understand Messrs Pintsch & Co telling us they find they are unable to quote for two sun valves, and suggesting as an alternative clockwork mechanism. It is because I do not want clockwork that I asked for sun valves, and I can easily get them.

I am simply astounded that Messrs Pintsch have not taken more trouble to get what we want.

My reason for asking them for it was, that they installed the light and would know all about the arrangements for fitting the sunvalves, but I can get other firms to do it if they cannot.

If they cannot supply these at once, please cancel the order - I do not want mechanism.

Yours truly,

ENGINEER TO THE BOARD.

RICHARDSON, McCABE & CO.

LIMITED.

UFM/RR

TELEGRAPHIC ADDRESS: "DREDGER." WELLINGTON.
P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z., 10th. April 1915.

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APR 13 1915

Sir,

PINTSCH'S PATENT LIGHTING CO. LTD., DEVONPORT
SANDSPIT BEACON ORDER NO. I-200.

We are in receipt of yours of the 8th.

April, and to-day sent the following cable to

Messrs. Pintsch's Patent Lighting Co. Ltd. -

"Your letter February fifteenth sent Hamer
"he replies print showing holder satisfactory
"but sunvalves must be supplied clockwork
"mechanism not acceptable claims he can obtain
"sunvalves elsewhere if you cannot supply
"please cancel order urgently required. Reply".

and now await their reply.

We are also sending a copy of your letter
now under acknowledgement to Pintsch's and regret
it has been necessary for you to write in the way
you have.

Assuring you of our best attention at all
times,

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Walter McCabe
Director.

W.H. Hamer Esq.,

Engineer - Auckland Harbour Board,

AUCKLAND.

RICHARDSON, McCABE & CO.

LIMITED.

CER/TM

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.

P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z., 17th April, 1915.

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AUCKLAND
BOARD
APR 19 1915
Engineer's Department.

Sir,

RE. PINTSCH'S PATENT LIGHTING CO. - DEVENPORT
SANDSPIT BEACON - ORDER NO: I/200. of Dec 21/1914

On April 10th., we wrote to you embodying in our letter copy of a cable we despatched to Messrs. Pintsch Company on receipt of your letter of April 8th., and now have their reply as follows -

"Holder and lantern nearly complete trying
"to arrange supply sunvalves any case presume
"only valves would be cancelled".

We shall be very much obliged if you will send to us your instructions so that we can again cable Messrs. Pintschs as to how you wish this order dealt with.

Awaiting the favour of your instructions,

We have the honour to be

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LD.,

Chas. Richardson Director.

W. H. Hamer, Esq.,

Engineer,

Auckland Harbour Board,

AUCKLAND.

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April 19th 1915

Messrs Richardson, McCabe & Co, Ltd.,
II, Grey St,
Wellington.

Dear Sirs,

PINTSCH'S PATENT LIGHTING CO.

DEVONPORT SANDSPIT BEACON - ORDER I.200

In reply to yours of the 17th inst., the answer to your question is that if Messrs Pintsch & Co cannot supply the Sun Valves, it is only the Sun Valves that we need cancelling.

I cannot, however, understand why Messrs Pintsch cannot obtain the Sun Valves, when every one else seems able to get them by return of post.

Clearly, it would suit us better to do this work through our Inspecting Engineer in London, and I am somewhat astonished that Messrs Pintsch have taken from Jan'y to April to even tell us that they could not supply the Sun Valves.

Dalen's sun valves can surely be purchased from the Swedish firm that makes them, and could be obtained at once. In my opinion these should now be here.

Yours truly,

ENGINEER TO THE BOARD.

RICHARDSON, McCABE & CO.

LIMITED.

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.

P.O. BOX 863.

MB/VL

11, GREY STREET,

Wellington, N.Z., 21st. April. 1915

APR 23 1915

Sir_

PINTSCH PATENT LIGHTING COY. - DEVONPORT SANDSPIT
BEACON - ORDER NO.1-200.

We are in receipt of your letter of 19th inst. and carefully note what you write regarding sun valves for the above order. We are cabling Messrs. Pintsch again in this connection and we trust they will be able to supply these sun valves and make prompt shipment of your order.

Assuring you of our best services at all times.

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO.LTD.

m. Burnett Assistant Manager.

W.H. Hamer Esq. M.I.C.E.

Engineer - Auckland Harbour Board,

AUCKLAND. N.Z.

RICHARDSON, McCABE & CO.

LIMITED.

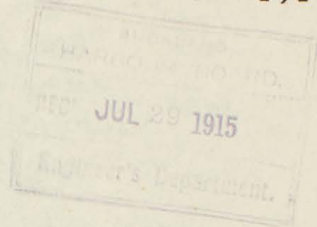
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TELEGRAPHIC ADDRESS: "DREDGER." WELLINGTON.

P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z., 27th. July. 1915.



Sir,

PINTSCH'S PATENT LIGHTING COMPANY LIMITED.
DEVONPORT SANDSPIT BEACON.

The above Company in their letter of 11th. June
write to us as follows :-

"With further reference to your letter of March
"25th. enclosing copy of letter received from Mr. Hamer
"regarding delivery, we now hear from the Works that
"they hope to complete the Holder by the 10th inst.
"This will be shipped immediately it has been inspected
"by Mr. Saxton, and the Lantern will follow as soon as
"possible afterwards.

"We very much regret the delay, but owing to
"Government work and the present state of affairs in
"this country, it is quite unavoidable. We can
"assure you that everything possible is being done to
"complete the order, and we shall be obliged if you
"will inform Mr. Hamer accordingly.

"With regard to your letter of the 12th. April,
"confirming your cable of the 10th. April regarding the
"Sun Valves, I much regret to have to inform you that
"after approaching the Swedish Company, or rather their
"representatives in London, I find that they are not
"at all inclined to sell us Sun Valves. I gather that
"this is due to two reasons, firstly owing to the fact
"that we are competitors and consequently they do not
"care about selling us their patent, and secondly
"because they are of opinion that these Sun Valves
"would not work satisfactorily with oil gas.

"I understand that they have written out to their
"New Zealand Agents on the matter, and that they will
"communicate again with us when they hear, but as you
"know, this means three months or more. Please explain
"this to Mr. Hamer."

We regret the delay which has occurred in
connection with this matter, but feel sure that the Pintsch's
Patent Lighting Co. has been doing what is possible to
facilitate delivery. Should you desire to correspond with

RICHARDSON, McCABE & CO.

LIMITED,
WELLINGTON, N.Z.

Continuation of Letter to W. H. Hamer Esq.

the Pinstch Patent Lighting Co. by cable or letter in connection with this matter, please advise us and same will receive immediate attention.

Assuring you of our best services at all times.

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

W. H. Hamer Director.

W. H. Hamer Esq.

Engineer,

Auckland Harbour Board,

AUCKLAND. N.Z.

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July 29th 1915

Messrs Richardson, McCabe & Co. Ld.,
WELLINGTON.

Dear Sirs,

DEVONPORT SANDSPIT BEACON.

I have yours of the 27th July covering copy of letter from Messrs Pintsch of the 11th June.

I note the difficulty that Messrs Pintsch have had with the Swedish Company re their sunvalve, and that their New Zealand agents will write me on this matter. This appears to me as being very puerile, and if the Dalen Coy do not wish to sell their goods I am not in the least anxious to buy.

I have already received and installed a valve which I ordered from the Company for Bear Rock, after placing the order for one with you for the Rangitoto Beacon. It seems absurd that I can obtain one for one light and cannot obtain it for the other. I think it is clear that Alients are suffering through trade jealousies.

I do not think there is any further necessity to write to Messrs Pintsch & Co, and I desire to thank you for the attention you have given to this matter.

Yours truly,

ENGINEER TO THE BOARD.

RICHARDSON, McCABE & CO.

LIMITED.

UFM/VL

TELEGRAPHIC ADDRESS: "DREDGER," WELLINGTON.

P.O. BOX 863.

11, GREY STREET,

Wellington, N.Z., 3rd August. 1915

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AUG 5 1915

RICHARDSON McCABE & CO. LTD.
WELLINGTON

Sir,

DEVONPORT SANDSPIT BEACON.

We are in receipt of your letter of 29th. July and contents are carefully noted. It does seem strange the attitude taken up by the Pintsch competitors.

We are sending on copy of your letter to Messrs. Pintsch Co. and will await with interest their reply, copy of which will at once be forwarded to you.

We have the honour to be,

Sir,

Your obedient servants,

RICHARDSON McCABE & CO. LTD.

Walter McCabe Director.

W.H. Hamer Esq. M.I.C.E.

Engineer,

Auckland Harbour Board,

AUCKLAND. N.Z.

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ALL COMMUNICATIONS TO BE
ADDRESSED TO THE COMPANY.

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.

TELEPHONE N° 1477 LONDON WALL.
TELEGRAPHIC ADDRESS, PINTSCH LONDON.
CODES USED, A. B. C. 5TH Ed. LIEBERS.
ENGINEERING CODE 2ND EDITION.
BENTLEY'S CODE.



WORKS,
DOVER WHARF,
LIMEHOUSE.

FRIARS HOUSE,

NEW BROAD STREET,

LONDON, E.C.

23rd. September, 1915



Dear Sir,

PINTSCH'S PATENT LIGHTING COMPANY, LIMITED.
IN VOLUNTARY LIQUIDATION.

I beg leave to inform you that with the sanction of
the Board of Trade this Company has changed its name to
"The Patent Lighting Company, Limited."

I am, Dear Sir,

Yours faithfully,

H. WOODBURN KIRBY.

Liquidator.

November 1st 1915.

Messrs Richardson, McCabe & Co., Ltd.,
WELLINGTON.

Dear Sirs,

DEVONPORT SANDSPIT BEACON.

On July 27th you wrote that Messrs Pintsch hoped to ship this gear about the 10th July. It should therefore have been here some time ago.

Will you please let me know definitely how this matter stands.

The order for this was placed as far back as December 21st 1914.

Yours truly,

ENGINEER TO THE BOARD.

WORKS
DOVER WHARF,
LIMEHOUSE,
E.

696

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Friars House, New Broad Street,

6888

London, E.C. November 4th

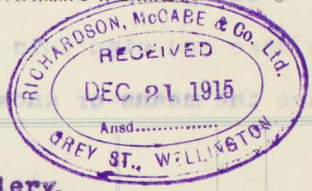
1915.

Messrs Richardson McCabe & Co Ltd. New Zealand.



PINTSCH'S PATENT LIGHTING CO. LTD

GAS ENGINEERS & RAILWAY LIGHT CONTRACTORS



R.B.356.

"Devonport Sandspit Beacon"

1, washholder 5'7" dia X 6'6" high with 4' gallery,

1, Lantern with 200m/m lens (incandescent) with flasher, Mantles &c, for the sum of £208. 13. 0.

as per our quotation of 31/12/13, less £15 for

A.M.B.

AUCKLAND, spare flasher not supplied, as per our letter

1/5.

5/2/15.

193 13 0

Order No 7.

22/12/14.



Charges.

Freight &c 27. 19. 3.

Insurance, War Risk only. 3. 0. 0.

B/L & Stamps. 2. 6. 31 1 9.

per s/s "Nerehana". £ 224 14 9.

Light duty with 12 deposit

Send as at Dec 30th 1915

about 4/50

I, Thomas Richard Saxton hereby certify that I am Chief Engineer of the Patent Lighting Company Limited, the suppliers of the articles included in this invoice amounting to £224. 14. 9. and dated the 4th November 1915, or goods supplied to Messrs Richardson McCabe & Co Ltd., or Wellington, New Zealand, and do hereby declare that I am duly authorised to make and sign this certificate on behalf of the said suppliers, that I have the means or knowing and do hereby certify as follows:-

(1) That the said invoice is in all respects true and correct.

(2) That every article in the said invoice has been wholly produced and manufactured in the United Kingdom.

Witness:

E. V. W. Sims

Thomas Richard Saxton

A. M. J. C. E.

Dated at London this 4th day of November, 1915.

Mr J. Porey.

Charges on Sandspit Light.

Duty.

1% War Duty on whole. 2.2.7

20% on Gerhardt's estimates 8.16.0
value. £40.0.0

Wharfage 17.3

£10.18.7

11/1/16.

A.P.D.

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DETAILS OF PACKAGES.

	Number of Packages.	Description of Packages.	Description of Stores showing Contents of Packages in detail.	Gross Weight.			Measurement.					
				Cwt.	Qrs.	Lbs.	Length.		Breadth.		Depth.	
							Ft.	In.	Ft.	In.	Ft.	In.
			<u>AUCKLAND HARBOUR BOARD.</u>									
			A.H.B.									
			AUCKLAND.									
1.	1		STOREHOLDER	28	0	0	8	-	5	6	5	6
2.	1		GALLERY	1	0	0	4	-	4	-	2	2
3.	1		STAND		2	0	1	9	1	9	1	8
4.	1	Case	1-200 m/m. Buoy Lantern No.63 with Flasher No.45 & Ruby Cylinder, Lens, Lense Ring & Cover, Cage & Mantle. 1 set of Tools, viz:- 1 Box Spanner, 1 Double End 6 No. 60/61 6 No. 62/63	2	3	11	4	2	2	5	2	5
5.	1	Case	1 Buoy Valve No.401 4 G.M. Bolts & Nuts 3/4" x 2 1/2" 4 No. 82 A. 1 Spare Lens 5 ft. Copper Tube, 1/2" 3 Red Glass Cylinders, 1 No. 162 A. 50 Mantles for 200 m/m Lantern No.18. 1 Tool Box complete with 12 Spare Mantles. 1 Copper Manhole Washer. 1 Nut and Liner.	1	0	19	2	4	2	2	1	4
				<u>33</u>	<u>2</u>	<u>2</u>						

All received in good order except one stanchion & life rail broken (no value) see F.O.W. Rept 12/1361 (blue) & 1362.

23/2/16

Lighting Beacons & Buoys (file 696)

After visit by Mr. Barton Esq. to Tintack's Lighting Co. the Co. forwarded the following alternative suggestions for lighting Buoys & Beacons in this harbor.

Re cost of upkeep they stated:-

With 1/2 p. charge of 10p. per 1000 Cu ft of gas oil gas a flashing apparatus giving 2 secs light & 10 dark would cost £9/4. per An

Evolved Acetylene with same flash wd cost 55/10p.

To bring this down to reasonable figure a flasher giving ^{one} light & 10 dark (which is too short period of light) would cost £7.10.0 per An

Inject Gas.

Capacity of storholder 398.335 cu ft
Pressure in Storholder before charging
105 lb per square inch

Pressure in pipe at gas house 147 lb
per square inch (say 150 lbs)

3 atmospheres equal 1500 cu ft of gas

Between 1 + 2 atmospheres equal
20 lb per square inch (no. of atmospheres
fluctuates)

They will lend us the gauge if this
could be of any service to us

Good information from Car & Wagon
Inspector's office, Rz Plys

Phone 1250

May 30th 1916.

The Chairman,

A. H. B.

NORTH HEAD LIGHTS, MANUKAU HARBOUR.

CONVERSION TO UNTRIPPED LIGHTS.

*See also memo
to Mr
13/2/20/1917*

This scheme was laid before the Chairman in November 1914.

The present cost of running the three lights, including lightkeeper's wages, oils, stores, coal, repairs, launch trips and 5% interest and depreciation on a £300 house is about £220 per annum, exclusive of any interest and depreciation on cost of this installation, which cost the Board nothing. The Secretary gives the annual maintenance cost as £184 per annum.

An approximate cost of converting these lights in the cheapest way would be about £520, and the maintenance would be about £100 per annum.

My estimate assumes increases on our previous prices, due to War rates and freights.

I think it unlikely that the Board would get delivery for a long period, and in view of the small annual saving I would suggest that the matter be deferred until costs are lower.

Capt. Gibbons' letter returned herewith.

ENGINEER TO THE BOARD.



Auckland Harbour Board.

MEMORANDUM.

FROM

THE SECRETARY.

25th May 1916.

To The Engineer,

A. H. B.

88240

BUOYS & BEACONS, MANUKAU HARBOUR.

In reply to yours of this morning, the cost of maintenance and repairs of the buoys in Manukau Harbour was:-

1914 - £91-5-4

1915 - £11-14-6

The expenditure in 1914 was for general overhaul - shackles £40 and launch hire £30 being the largest items. This overhaul has been necessary again this year.

H.B.B. W.J.H.


secretary.

June 7th 1916 .

Messrs H.G. Teagle, Ltd.,
P.O. Box 405,
WELLINGTON.

Dear Sirs,

LIGHTS, MANUKAU HARBOUR.

In reply to yours of the 26th May, it is not the Board's intention to make the beacons in the Manukau Harbour light beacons, and this matter has been deferred for a considerable time.

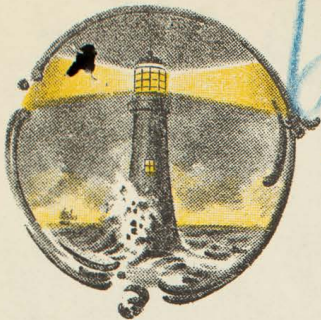
Another matter also deferred is the changing of three lights at the North Head, Manukau Harbour, which are now ordinary kerosene lights, into automatic untended lights. As yet, I have not the detailed particulars of these lights, but I will forward them to you immediately after I have visited the Heads - probably next week.

I will then ask you for quotations for Messrs Chance Brothers' gear to suit the case.

As the shelters over the lights exist, all we will probably want will be - three lenses with necessary lighting gear - so far as I remember the internal diameter of the lenses is about 12". The lights are white and fixed, the candle power is probably 300 or 400, and the period for which I should require the gas or oil service would be a minimum of two months.

I would like to have your price list of all parts supplied by Messrs Chance Brothers separately priced out for delivery here, so that I might make quick reference to it at any time.

Yours truly,



696

**THE ACETONE ILLUMINATING & WELDING COMPANY,
LTD.**

Napier, N.Z.

5/6/16

TELEGRAPHIC & CABLE ADDRESS
"ACETONE, NAPIER."

TELEPHONE—60

P.O.Box 149

CODES.

A.B.C. (4TH & 5TH EDITIONS)

PRIVATE

COMPRESSING STATIONS
NAPIER SOUTH.
&
DUNEDIN.

JHE /LHP.

W.H. HAMER ESQ.

ENGINEER. HARBOUR BOARD.

AUCKLAND.

RECEIVED
HARBOUR BOARD
JUN 7 1916
and 24
Engineer's Department.

Dear Sir/

I understand that you are contemplating the erection of new Leading Lights at the North Manukau Heads. I therefore have pleasure in handing you Sheet No 25 which deals with this type of light.

I shall be happy to submit you quotations, upon learning your requirements as to optical range and period of service required for gas storage.

Trusting to be placed at your service, and assuring you at all times of our best attention .

Yours faithfully,

For THE ACETONE ILLUMINATING AND WELDING CO. Ltd

J. C. Munro
Managing Director.

June 7th 1916.

Messrs The Acetone Illuminating & Welding Co., Ltd.,

NAPIER.

Dear Sirs,

LEADING LIGHTS, NORTH HEAD, MANUKAU.

In reply to yours of the 5th inst., I have to say that this Board has deferred the above matter, and I am doubtful if they will eventually change the present tended to untended lights.

I would, however, be glad to consider your price for three lanterns with lenses and gas cylinders.

I have as yet no accurate particulars of the present lenses, but I believe they are about 12" internal diameter, and I will obtain full particulars when I next go to the Heads.

There are three shelter houses, and it is quite possible that only the lenses, lighting gear and cylinders will be required, so that it will be well for you to split up your prices in detail.

I should think the candle power would have to be about 300 to 400 c.p., ^{each - white, fixed} and the period of gas service should be for a minimum of two months, although the lights may be visited more frequently.

Yours truly,

ENGINEER TO THE BOARD.

HERBERT G. TEAGLE, Ltd.

**INDENTORS
AND
MANUFACTURERS' REPRESENTATIVES**

P.O. Box 405.

TELEPHONE 3876.
ELEGRAMS "TEASPUR," WELLINGTON.
CODE: A.B.C. 5TH EDITION.

Wellington, 9th June, 1916.
N.Z.

JUN 12 1916

Engineer's Department.

W. H. Hamer, Esq.,
Engineer,
Auckland Harbour Board,
Auckland.

Dear Sir,

LIGHTS, MANUKAU HARBOUR.

We have pleasure in acknowledging receipt of your favour of the 7th inst., for which we thank you.

We shall look forward with interest to receiving the detailed particulars respecting the changing of the three lights at the North Head. Our Principals make a special feature of unattended lights, and immediately upon receipt of your further favour we shall have pleasure in asking them to furnish you a quotation, at the same time a price list of the various parts supplied, for reference purposes.

We have sent you their catalogues, if you desire further copies we shall have pleasure in forwarding same.

We are,

Yours faithfully,

HERBERT G. TEAGLE, LTD.

H.G. Teagle
Managing Director

June 12th 1916.

Messrs Herbert G. Teagle, Ltd.,
P.O. Box 405,
WELLINGTON.

Dear Sirs,

LIGHTS, NORTH HEAD, MANUKAU.

I enclose herewith particulars of these lights.
I desire to make them into untended lights.
At present there is a keeper.
The lamps are all kerosene.

The houses for the lanterns exist. Photo. of two smaller herewith. All lanterns were made by Messrs Chance Bros. & Co. Ltd., Birmingham. The large one was supplied about 15 years ago and the 2 smaller ones from 30 to 40 years ago.

The lanterns and the lenses exist, and all that is required is the apparatus for controlling the light inside the existing lens, and the gas or oil holders.

It is desired to make these as simple and cheap as possible.

All lights are on a steep hill side, and it is desired to avoid the getting up and down of heavy cylinders.

The lanterns are all placed on simple tables from 2' -9" to 3' -3" above the floor of the lighthouse.

For this position I think kerosene oil will probably be the simplest, cheapest and best, and lights like the Wigham oil lights would probably be satisfactory.

What is disappointing about your letter is that you, as agents for an important English firm, have to send to England to get prices. I respectfully suggest that your principals should keep you so advised of prices that you should be in a position to quote straight away and enable us to place orders, instead of waiting 5 or 6 months.

Of course I understand the disorganization of business due to War conditions, but I confess I am astonished at your not having a price list of the various parts, which you could supply to me at once.

If British manufacturers intend to maintain a footing here after the War, they will have to do something better than this, and I suggest that it would be kind to tell them so.

Yours truly,

ENGINEER TO THE BOARD.

Messrs The Acetone Illuminating
Welding Co. Ltd.
Napier

June 12th 1916.

See left before this

Dear Sirs,

LIGHTS, NORTH HEAD, MANUKAU.

I enclose herewith particulars of these lights.

I desire to make them into untended lights.

At present there is a keeper.

The lamps are all kerosene.

The houses for the lanterns exist. Photo. of two smaller herewith. All lanterns were made by Messrs Chance Brothers & Co. Ltd., Birmingham. The large one was supplied about 15 years ago and the 2 smaller ones from 30 to 40 years ago.

The lanterns and the lenses exist, and all that is required is the apparatus for controlling the light inside the existing lens, and the gas or oil holders.

It is desired to make these as simple and cheap as possible.

All lights are on a steep hill side, and it is desired to avoid the getting up and down of heavy cylinders.

The lanterns are all placed on simple tables from 2'-9" to 3' -3" above the floor of the lighthouse.

AUCKLAND HARBOUR BOARD

Engineer's Office

June 10th 1916.

NORTH HEAD LIGHTHOUSE.

ALL DIMENSIONS BY MISSISS CHANCE ENGINE & CO, BIRMINGHAM.

One light 7^{0/16}" internal radius,
Depth of glass lens, 12",
Silvered reflector behind lens has sector of about
150° glass.
Centre of light above present floor, 3' - 3",
Centre of lens above table, 12",
Height of lantern (to top of chimney) 2' - 3",
Wick 1" diameter, circular - lasts about 6 months.
Kerosene oil used,
Oil receiver 7^{1/2}" dia. x 3^{1/4}" deep.

CHANGED LIGHTS IN REAR ROOM - PRO. IN NUMBER.

Each internal radius 4^{3/4}" - glass of lens 6^{3/4}" deep.
Centre of lens 5^{3/4}" above table, and table 2^{1/4}" to floor
Lantern 15" deep - no top on this - gets too hot.
Oil receiver 7^{1/2}" dia. x 2^{5/8}" deep,
Wicks, two, 1" wide & 3/4" apart,
Arc of glass of lens about 240°

AUCKLAND HARBOUR BOARD

Engineer's Office

June 10th 1916.

NORTH HEAD MANUKAU.

ALL LANTERNS BY MESSRS CHANCE BROS & CO, BIRMINGHAM.

One light $7\frac{3}{8}$ " internal radius,
Depth of glass lens, 12",
Silvered reflector behind lens has sector of about
 105° glass.
Centre of light above present floor, 3' - 3",
Centre of lens above table, 12",
Height of lantern (to top of chimney) 2' - 8",
Wick 1" diameter, circular - lasts about 6 months.
Kerosene oil used,
Oil receiver $7\frac{1}{2}$ " dia. X 3 $\frac{1}{2}$ " deep.

SMALLER LIGHTS IN BEACONS - TWO IN NUMBER.

Each internal radius $4\frac{1}{2}$ " - glass of lens $6\frac{1}{2}$ " deep.
Centre of lens $8\frac{1}{2}$ " above table, and table 2' - $8\frac{1}{2}$ " to floor
Lantern 15" deep - no top on this - gets too hot.
Oil receiver $7\frac{1}{2}$ " dia. X $2\frac{1}{8}$ " deep,
Wicks, two, 1" wide & $\frac{3}{8}$ " apart,
Arc of glass of lens about 240°

AUCKLAND HARBOUR BOARD,

Engineer's Office

June 10th 1916.

NORTH HEAD MANUKAU.

ALL LANTERNS BY MESSRS CHANCE BROS & CO, BIRMINGHAM.

One light $7\frac{1}{2}$ " internal radius,
Depth of glass lens, 12",
Silvered reflector behind lens has sector of about
 195° , glass.
Centre of light above present floor, 3' - 3",
Centre of lens above table, 12",
Height of lantern (to top of chimney) 2' - 8",
Wick 1" diameter, circular - lasts about 6 months.
Kerosene oil used,
Oil receiver $7\frac{1}{2}$ " dia. X $3\frac{1}{2}$ " deep.

SMALLER LIGHTS IN BEACONS - TWO IN NUMBER.

Each internal radius $4\frac{1}{2}$ " - glass of lens $6\frac{1}{2}$ " deep.
Centre of lens $8\frac{1}{2}$ " above table, and table $2\frac{1}{2}$ - $3\frac{1}{2}$ " to floor
Lantern 15" deep - no top on this - gets too hot.
Oil receiver $7\frac{1}{2}$ " dia. X $2\frac{1}{2}$ " deep,
Wicks, two, 1" wide & $\frac{1}{4}$ " apart,
Arc of glass of lens about 240°

^{St. Head Mountain 10/9/16}
All lanterns by Chance of B'ham.

One large light $7\frac{3}{8}$ " internal radius.

Depth of glass lens 12"

Silvered reflector behind

Lens has sector of about 195° glass

Cent. of light above present floor. $3\frac{1}{3}$

Cent. of lens above table 12"

Height of lantern (to top of chimney) 2'8"

Wick 1" dia circular - lasts about 6 mos.

Kerosene oil used.

Oil receiver $7\frac{7}{8}$ " dia \times $3\frac{3}{4}$ " deep

$$= 48.759" \times 3.75" = 182.5" \text{ @ } 55\text{ lbs per c. ft.}$$

$$= \frac{182.5}{9.46} \times 55\text{ lbs} = 5.82\text{ lbs} = 1\text{ gallon (app.)}$$

Smaller lights in beams. Two in no.

Each Int. radius $4\frac{3}{4}$ " - glass of lens $6\frac{1}{2}$ " deep.

Cent. of lens $8\frac{3}{4}$ " above table + table $2\frac{3}{4}$ " above floor

Lantern 15" deep - no top on this - gets too hot

Oil receiver $7\frac{1}{2}$ " dia \times $2\frac{5}{8}$ " deep = 116" ^{all 1/2 gal}

Wicks - Two 1" wide + $3\frac{1}{4}$ " apart.

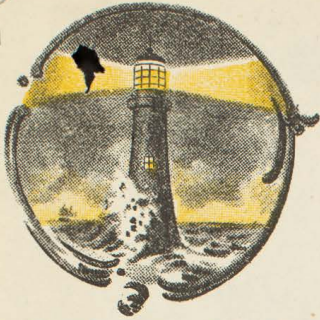
Arc of glass of lens about 240° .

$$1 \text{ gallon} = 4541.0 \text{ c.c.}$$

$$1 \text{ c.} = 16.387 \text{ c.c.}$$

$$122.5 \text{ c.} = 2990 \text{ c.c.} = \frac{2990}{4541} = \frac{2}{3} \text{ gallon}$$

$$116 \text{ c.} = 1900 \text{ c.c.} = \frac{1900}{4541} = .42$$



THE ACETONE ILLUMINATING & WELDING COMPANY,
LTD.

Napier, N.Z. 28th June 1916

TELEGRAPHIC & CABLE ADDRESS
"ACETONE, NAPIER".

TELEPHONE—60

P.O. Box 149

CODES.

A.B.C. (4TH & 5TH EDITIONS)

PRIVATE _____

COMPRESSING STATIONS
NAPIER SOUTH.
&
DUNEDIN.

W.H. Hamer Esq.

Engineer.

Harbour Board.

Auckland.

JUN 14 1916

*sent per...
on 12/5*

Dear Sir,

Your favour of the 7th instant to hand for which I thank you. In connection with the leading lights, would an horizontal dispersion of 10° be sufficient for the back light ?

Would an horizontal dispersion of 180° be sufficient for the front light ?

In most cases these are sufficient and the advantage is that in the case of the back light we can then employ a plano-convex lens to produce the narrow beam, giving a maximum lighting effect with low consumption. If the dispersion of the front light did not exceed 180° we could arrange to use a catadioptric reflector and thus intensify the light and keep down the gas consumption.

You mention three lanterns in your letter. What class of lantern is required for the third light?

Thanking you in anticipation.

Yours faithfully,

For THE ACETONE ILLUMINATING AND WELDING CO. Ltd.

A. B. Munro

Managing Director.

HERBERT G. TEAGLE, Ltd.

P.O. BOX 405.

INDENTORS

AND

MANUFACTURERS' REPRESENTATIVES

TELEPHONE 3876.
ELEGRAMS "TEASPUR," WELLINGTON.
CODE: A.B.C. 5TH EDITION.

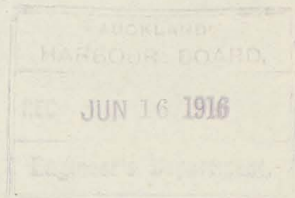
Wellington, 14th June, 1916.
N. Z.

W. H. Hamer, Esq.,

Engineer,

Auckland Harbour Board,

Auckland.



Dear Sir,

We thank you for your favour of the 12th inst., giving particulars of alteration to lights at North Head, Manukau. This information we are handing to our Principals, Messrs. Chance Bros. & Co. Ltd., for their immediate attention.

We quite recognise the importance of being in a position to give you a quotation on the spot, but at the present moment this is impossible. We are, however, handing your remarks to our Principals.

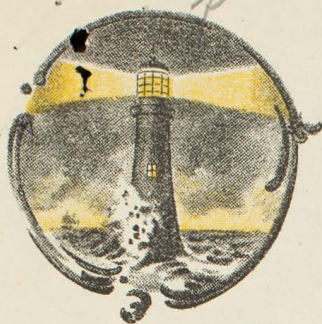
Assuring you of our prompt attention to your wishes,

We are,

Yours faithfully,

HERBERT G. TEAGLE, LTD.

H. G. Teagle
Managing Director



THE ACETONE ILLUMINATING & WELDING COMPANY,
LTD.

Napier, N.Z.

20th June, 1916.

TELEGRAPHIC & CABLE ADDRESS
"ACETONE, NAPIER."

TELEPHONE—60

P.O. Box 149

CODES.

A.B.C. (4TH & 5TH EDITIONS)

PRIVATE

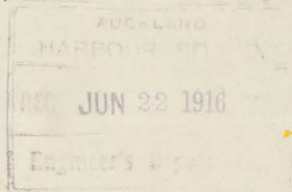
COMPRESSING STATIONS
NAPIER SOUTH.
&
DUNEDIN.

Mr. W. H. Hamer,

Engineer,

Harbour Board,

Auckland.



Dear Sir,

Here with I have the pleasure in handing you a number of specifications and quotations for your consideration. For your convenience I have had them summarised. You will find this summary at the back of the letter folder.

I note you are favourably disposed towards steady lights in the leading beacons. I would, however, like you to consider a combination ~~with~~ of a flashing and ~~affixed~~ light for this purpose as embodying the advantages of both. If you place a steady light in the back beacon and a flashing light in the front beacon, the front (flashing) light gives the combination a character that serves a good purpose and saves gas, while the steady back light is continuously before the steers^smen. An excellent combination would be ME Nos. 114 & 115. The small dispersion of the back light enables us to concentrate all the light rays, thus obtaining a very powerful beam.

You will also note that I have quoted each light with

A85 & A50 accumulators. The smaller ones weigh about 120 lbs. each and the larger 230 lbs.

The existing large beacon could be altered to a flashing light, perhaps, without any disadvantage I have pleasure in recommending this for your consideration. You will note the initial cost and upkeep are considerably lower when compared with a steady light, and there is also the advantage of the flashing light having a distinguishing feature due to its character.

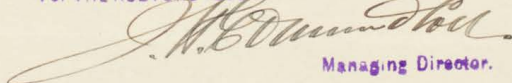
In the event of your converting any of your existing lanterns it would of course be necessary, that they should be both storm and insect proof. This, no doubt, could easily be done at any rate in the case of the larger lantern.

If there are any further details that you would like, I shall be happy to supply same on request.

Trusting to be favoured with your order, and assuring you at all times of our best attention.

Yours faithfully,

For THE ACETONE ILLUMINATING AND WELDING CO. Ltd.


Managing Director.

June 22nd 1916.

Messrs The Acetone Illuminating & Welding Co.Ld.,
NAPIER. N.Z.

Dear Sirs,

BEACON, NORTH HEAD, MANUKAU.

I am much obliged for yours of the 20th.
enclosing detail specifications and costs for conversion of
three lights for above.

I do not understand how you arrive at the
candle power jumping from 380 to 7,000 in the complete new
installations, and only 38 & 18 c.p. for the converted
lanterns. The two latter are given as the naked flame, whereas
I presume the former are measured at the lens after
magnification.

I am not quite clear whether the candle power
for "Men." I26 & I27 is intended for 3 or 18. It appears to
have been written originally 18 and partly erased.

The only possible thing that would induce
this Board to make the conversion would be cheapness over
the present position, so that they would not consider anything
but conversion of the present lanterns, using as much as
possible of the existing gear.

Yours truly,

ENGINEER TO THE BOARD.

*Acetone Illuminating and
Welding Company Ltd.*

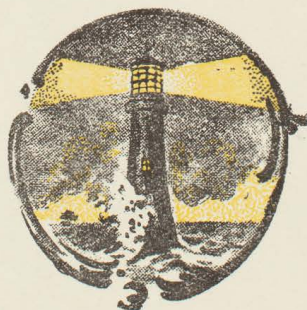
THE ACETONE ILLUMINATING AND WELDING COMPANY, LTD.

NAPIER AND DUNEDIN.

AUCKLAND HARBOUR BOARD

SPECIFICATION FOR PROPOSED LIGHTS.

N. H. Mankam.



*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

M.E.114

SPECIFICATION OF LEADING LIGHT.

SPECIFICATION OF LEADING LIGHT.

Back Light (Steady)

Front Light (Flashing) of light adjustable from

Lantern L.R. 200/180C with K-130.25 litre burner

c.p. 380. Character 2 sec. L. 1 sec. D.

103:0:0

Sunvalve and burner stand

40:0:0

Sunvalve installation materials. S.A.

6:8:0

Accumulators. 3-A 50 service period 2 months £32

96:0:0

Accumulators 3-A in reserve. 2 months £32

96:0:0

Installation material B/3

12:16:0

Tools Set A. material B/3

4:8:0

Tools set A.

358:12:0

Less 10/-

35:17:2

Less 10/-

£322:14:0

Cost of gas per annum

26:14:0

Cost of gas per annum

£348:28:0

*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

M.E.115.

SPECIFICATION OF LEADING LIGHT.

Back Light (Steady)	
Lantern L.350 dispersion of light adjustable from 3 to 10 degrees without flasher with 15 L. burner c.p. 7000 steady light.	120:0:0
Governor and Burner Stand	8:0:0
Sunvalve	40:0:0
Sunvalve Installation material S.A.	6:8:0
Accumulators 3 A-50 service period 2 months @ £32	96:0:0
" " in reserve.	96:0:0
Installation material B/3	12:16:0
Tools set A.	14:8:0
	<u>383:12:0</u>
Tools Set A.	
<u>Less 10%</u>	<u>38:7:2</u>
	<u>345:4:10</u>
Cost of gas per annum	26:14:0

Acetone Illuminating and
Welding Company, Ltd.

AUCKLAND HARBOUR BOARD.

SPECIFICATION OF LEADING LIGHT.

M.E.116.

Front Light (Flashing)

Lantern L.R.266/180 c. with K.130 25 litre burner.	
c.p.380. character 2 sec.L. 1 sec D.	103:0:0
Sunvalve	40:0:0
Sunvalve Installation Material S.A.	6:8:0
Accumulators 6.- A-25 service period 2 months	115:4:0
" " in reserve.	115:4:0
Installations materials B/6	21:4:0
Tools Set A.	4:8:0
	<u>405:8:0</u>
	Less 10%
	<u>40:10:10</u>
	<u>£ 364:17:2</u>
Cost of gas per annum	26:14:0

Acetone Illuminating and
Welding Company, Ltd.

AUCKLAND HARBOUR BOARD.

SPECIFICATION OF LEADING LIGHT.

M.E.117

Back Light (Steady)

Lantern L-350 Dispersion of light adjustable from 3 to 10 degrees without flasher with 15 litre burner c.p.7000 steady light.	120:0:0
Governor & Burner Stand	8:0:0
Sunvalve.	40:0:0
Installation Material S.A.	6:8:0
Accumulators 6 A-25 service period 2 months	115:4:0
" " in serve reserve.	115:4:0
Installation B/6	21:4:0
Tools Set A	4:8:0
Cost of gas per annum	430:8:0
<u>Less 10%</u>	<u>43:0:10</u>
	<u>£387:7:2</u>
<u>Cost of gas per annum.</u>	<u>26:14:0</u>

Acetone Illuminating and
Welding Company, Ltd.

AUCKLAND HARBOUR BOARD.

SPECIFICATION OF LEADING LIGHT.

M.E.119

Front Light (steady	
Front Light (steady	without flasher with
Lantern L.R. 200/180	without flasher with
25 litre burner c.p. 380	63:0:0
Governor and Burner Stand.	8:0:0
Sunvalve	40:0:0
Sunvalve installation materials SA	6:8:0
Accumulators. 9 A-25 service period 2 months.	172:16:0
Installation material in reserve.	172:16:0
Installation material B/9	29:12:0
Tools Set A.	4:8:0
	<u>497:0:0</u>
	<u>Less 10</u>
	<u>447:6:0</u>
Cost of gas per annum	<u>40:1:0</u>

*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

M.E.1169

SPECIFICATION OF LEADING LIGHT

Front Light (steady)	
Lantern L.R.200/180 c without flasher with	
25 litre burner c.p.380	63:0:0
Governor and Burner Stand	8:0:0
Governor-and-Burner- Sunvalve	40:0:0
Sunvalve Installation material S.A.	6:8:0
Accumulators 5 A-50 service period 67 days	160:0:0
" " in reserve.	160:0:0
Installation material B/5	18:8:0
Tools. Set A.	4:8:0
	<hr/>
	460:4:0
<u>Less 10</u>	<hr/>
	46:0 5
	<hr/>
	£414:3:7
	<hr/>
<u>Cost of gas per annum</u>	<hr/>
	40:1:0

*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING LARGE LANTERN
STEADY LIGHT.

M.E. 120

Governor & Burner Stand 25 litre burner	8: 0:0
Governor & Burner 25 litre burner	8: 0:0
Sunvalve installation material S.B.	40: 0:0
" materials S.B. service period of days 2 x 32	8: 8:0
Accumulators. 9 A-25 service period 2 months	172:16:0
" " in reserve	172:16:0
Installation materials B/9	29:12:0
Tools set A.	4: 8:0
	<hr/>
	436: 0:0
	<hr/>
<u>Less 10%</u>	<u>43:12:0</u>
	<hr/>
Cost of gas per annum	<u>392: 8:0</u>
	<hr/>
<u>Cost of Gas per annum</u>	<u>40: 1:0</u>

Acetone Illuminating and
Welding Company, Ltd.

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING LARGE LANTERN

STEADY LIGHT.

M.E. 121

Governor & Burner Stand 25 litre burner	8:0:0
Sunvalve	40:0:0
" installation material S.B.	8:8:0
Accumulators 5 A-50 service period 67 days @ £32	160:0:0
Tools set A. " in reserve.	160:0:0
Installation Materials B/5	18:8:0
Tools Set A.	4:8:6
	<u>399:4:0</u>
Less 10s	39:18:5
Cost of gas per annum	<u>£359: 5:7</u>
Cost of gas per annum	<u>40:1:0</u>

*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING LARGE LANTERN.

M.E. 122

Flash Light .3 L. 2.7 sec Dark.

Flasher K.130 with 25 litre burner	40:0:0
Accumulators 2 A -25 service period 2 months	38:8:0
" " in reserve.	38:8:0
Installation material B/2	10:0:0
Tools set A.	4:8:0

131:4:0

Less 10%

13:2:5

£118:1:7

Cost of fas per annum

8:18:0

Acetone Illuminating and
Welding Company, Ltd.

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING LARGE LANTERN.

APPARATUS FOR CONVERTING SMALL LANTERN BEACON TO STEADY LIGHT.

M.E. 123.

Flash light .3 sec. light 2.7 sec Dark.

M.E. 124

Flasher	K - 130 with 25 litres burner	40:0:0
Accumulators	1. A.50 service period 2 months	32:0:0
Cover of burner	stand in reserve.	32:0:0
Installation material	B/1	7:4:0
Tools Set A.		<u>4:8:0</u>
Accumulators	6 A.50 service period 2 months	115:12:0
Installation material	in reserve.	115:4:0
	<u>Less 10/6</u>	<u>21:4:11:2</u>
Tools Set A.		<u>£104:00:10</u>
		<u>312:0:0</u>
Cost of gas per annum		<u>37:4:8:18:0</u>

Cost of gas per annum

26:14:0

Acetone Illuminating and
Welding Company, Ltd.

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING SMALL LEADING BEACON TO STEADY LIGHT.

M.E.124

Governor & Burner Stand 15 litre burner	8:0:0
Sunvalve	40:0:0
" installation material S.B.	8:8:0
Accumulators 6 A.25 service period 2 months	115:4:0
" " " in reserve.	115:4:0
Installations materials B/6	21:4:0
Tools Set A.	4:8:0
	<u>312:8:0</u>
Less 10p	<u>31:4:10</u>
	<u>£281:3:2</u>
<u>Cost of gas per annum</u>	<u>26:14:0</u>

*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING SMALL BEACONS (LEADING
TO STEADY LIGHT.

M.E.125

M.E. 125	GOVERNOR & Burner 15 litre burner	8:0:0
Sunvalve		40:0:0
"	Installation materials S.B.	8:8:0
Accumulators 3 - A 50	service period 2 months	96:0:0
"	Installation in reserve	96:0:0
Installation material B/3	service period 3 months	12:16:0
Tools Set A.	in reserve.	4:8:0
Installation material B/4		265:12:0
Tools set A.	<u>Less 10.</u>	<u>26:11:2</u>
		<u>£239: 0:10</u>
		<u>23:10:0</u>
		<u>207:0:0</u>
Cost of gas per annum		<u>26:14:0</u>
Cost of gas per annum		<u>17:16:0</u>

*Acetone Illuminating and
Welding Company, Ltd.*

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING SMALL LEADING
BEACONS TO STEADY LIGHTS.

M.E. 126

M.E. 126

Governor and burner stand 10 litre burner	8:0:0
Governor & Burner Stand 10 litre burner	8:0:0
Sunvalve installation material S.B.	40:0:0
" " Installation Materials S.B.	8:8:0
Accumulators 4 A-25 service period 2 months	76:16:0
Installation material " in reserve.	76:16:0
Installation materials B/4	15:12:0
Tools set A.	4:8:0
	<u>230:0:0</u>
	<u>10%</u>
	<u>23:0:0</u>
	<u>£207:0:0</u>

Cost of gas per annum 17:16:00

Acetone Illuminating and
Welding Company Ltd.

AUCKLAND HARBOUR BOARD.

APPARATUS FOR CONVERTING SMALL BEACONS
TO STEADY LIGHTS.

M.E.127

Governor and burner Stand 10 litre burner	8:0:0
Sunvalve	40:0:0
" Installation Material S.B.	8:8:0
Accumulators 2 A.50 service period 2 months	64:0:0
" " in reserve.	64:0:0
Installation Material B/2	10:0:0
Tools Set A.	<u>4:8:0</u>
	198:16:0
	<u>Less 10</u>
	<u>19:17:6</u>
	<u>178:18:6</u>
<u>Cost of gas per annum.</u>	<u>17:16:0</u>



696

THE ACETONE ILLUMINATING & WELDING COMPANY, LTD.
Napier, N.Z.

24th. June, 1916.

NEW ZEALAND
POST OFFICE
JUN 27 1916
C. G. G. G. G.

TELEGRAPHIC & CABLE ADDRESS
"ACETONE, NAPIER"

TELEPHONE—60
P.O. Box 149

CODES.
A.B.C. (4th & 5th EDITIONS)

PRIVATE

COMPRESSING STATIONS
NAPIER SOUTH.
&
DUNEDIN.

J.H.E./F.B.

W. H. Hamer, Esq.

Engineer,

Harbour Board,

Auckland.

Dear Sir,

Your letter of the 22nd. instant to hand. In reply I have pleasure in giving you the following further particulars.

Candle Power Of The Specified Installations

<u>No. of Installation.</u>	<u>C. P. of Naked Flame.</u>	<u>C.P.through Lens.</u>
ME 114	38	380
ME 115	18	7000
ME 116	38	380
ME 117	18	7000
ME 118	38	380
ME 119	38 38	380
ME 120	38	---
ME 121	38	---
ME 122	38	---
ME 123	38	---

No. of Installation	C.P. of Naked Flame.	C.P. through Lens.
ME 124	18	-----
ME 125	18	-----
ME 126	8	-----
ME 127	8	-----

You will note that I have not given you the candle power of any of the proposals using your present lenses. I have been unable to do this, as I have no formula to enable me to arrive at it, This is a point that I have taken up with our principals, asking them to furnish me with the necessary data. In the case of the complete lanterns, the lenses are of standard sizes for ^{which we have tables} ~~The~~ great difference between ME 114 and ME 115 is that in the former we are employing a lens of 100 M/M focal diameter and throwing the light through an arc of 180 degrees whilst with the latter we have a larger focal diameter (175 M/M) and only project the light through an arc of 10 degrees, the concentration of course increases the intensity.

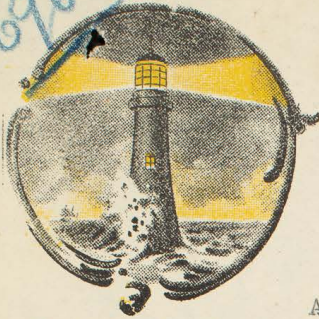
In considering the alteration you will of course bear in mind not only the relative cost of the illuminants, but the saving effected ~~in the lights~~ by the fact of making the lights automatic. Then again by the alteration a vast improvement could no doubt be effected in the lights themselves, both in the matter of intensity and the advantage due to giving the lights a distinctive character. The improved service is of course worthy of consideration.

Trusting to be placed at your service.

Yours faithfully,

For THE ACETONE ILLUMINATING AND WELDING CO. Ltd

J. H. Mumford
Managing Director.

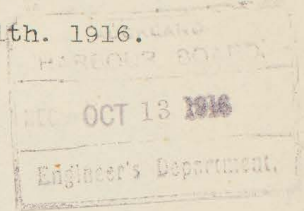


696

THE ACETONE ILLUMINATING & WELDING COMPANY, LTD.

Napier, N.Z.

OCTOBER, 11th. 1916.



A.C.D./C.M.C.

TELEGRAPHIC & CABLE ADDRESS
"ACETONE, NAPIER."

TELEPHONE—60

P.O. Box 149

CODES.

A.B.C. (4th & 5th EDITIONS)

PRIVATE

COMPRESSING STATIONS
NAPIER SOUTH.
&
DUNEDIN.

W.H. HAMER ESQ.,

ENGINEER,

HARBOUR BOARD,

AUCKLAND.

DEAR SIR,

Some time ago we quoted you for Light Apparatus for your Port. We regret to advise that the Aga Company have cabled us advancing their Apparatus ten per cent.

Under our Agency agreement this rise cannot take place prior to November 1st. We would therefore be pleased if you would let us have your requirements in Light Apparatus to enable us to cable Aga before that date, when the old quotation will stand.

No doubt the heavy cost of raw Materials— Coupled with excessive freight and ⁱⁿ ~~an~~ insurance charges, makes it necessary for our Principals to take this step.

Yours faithfully.

The Acetone Illuminating and Welding
Company, Limited,

Alan C. Dunn

Secretary.

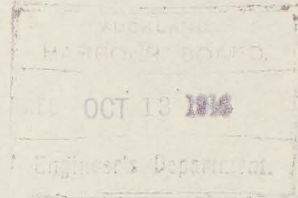
HERBERT G. TEAGLE, Ltd.

INDENTORS
AND
MANUFACTURERS' REPRESENTATIVES

P.O. Box 405.

TELEPHONE 3876.
ELEGRAMS "TEASPUR," WELLINGTON.
CODE: A.B.C. 5TH EDITION.

Wellington, 11th October, 1916.
N.Z.



W. H. Hamer, Esq.,

Engineer to the Auckland Harbour Board,
Auckland.

Dear Sir,

With reference to your esteemed enquiry of the 12th June, we now have pleasure in handing you our Principals tender and specification, together with Drawing No. K31549, in connection with the proposed conversion of your lights at North Head, Manukau.

Our Principals inform us in order to use lamps of the "Wigham" type, new lenses will be required as the focal planes of the existing ones are too high above their bases to suit the burners.

The new lenses would rest upon the reservoirs "A" of the lamps, shewn on Drawing.

Owing to the length of the Float Cylinder "B", a pit will have to be formed in the ground to accomodate a portion of this length, or the shelter in which the light is placed correspondingly raised.

The lamp should be supported by legs or light girders preferably of iron, placed under the reservoir "A". The cost of such supports is not included in our Tender.

We trust that with the aid of the dimensions given on

D. H. Hamer, Esq.

-2-

11th October, 1916.

the enclosed drawing you will be able to determine as to what modifications, if any, will require to be made for the shelters to accomodate the new lamps.

Any lantern mountings which are still in use and are attached to the tops of the existing lens, can possibly be secured to the top rings of the new lens frames.

We trust that we have made all points clear, but if you require any further information we shall be pleased to go into the matter and modify our offer to suit the requirements.

We hope our Tender will meet with your favourable consideration, in which case we would suggest that we cable our Principals your acceptance, as they advise us that their price can only remain open ~~for~~ two months from date of tender, after which date the order must be subject to confirmation before acceptance. Unfortunately it will be impossible to give shipment earlier than four to five months from date of order. This is entirely due to the difficulty in obtaining the necessary sheets of Copper and Brass, all materials being almost exclusively employed on munition work.

We look forward with interest to receiving your reply, which will have our immediate attention.

We are,

Yours faithfully,

HERBERT G. TEAGLE, LTD.

H. G. Teagle
Managing Director

1000-10-12.

RAILWAY STATION.
SPON LANE, L.N.W.RY.
TELEPHONE.
OLDBURY NO 121.
TELEGRAPHIC ADDRESS.
"CHANCE LIGHTHOUSE,
SMETHWICK."
CABLE ADDRESS:
"CHANCE.SMETHWICK."
CODE USED.
A.B.C. 5TH EDITION.

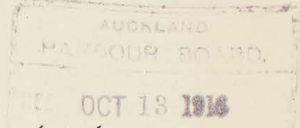
AWARDED GRAND PRIX,
FRANCO-BRITISH EXHIBITION,
1908.

AWARDED GRAND PRIX,
CENTENARY EXHIBITION,
BUENOS AIRES,
1910.



*Lighthouse Works,
near Birmingham.*

August 22nd 1916.



Tender.

Dear Sirs,

In reply to your esteemed enquiry dated _____ we have pleasure in quoting you below for the goods specified, and trust that we may be successful in receiving your order, which would have our careful and prompt attention.

Yours faithfully,

For CHANCE BROTHERS & CO., LIMITED.

Hooper



One 375 m/m lens and one Wigham 62 day Duplex Lamp with supply of chimneys, wicks etc., in accordance with the accompanying specification..... £ 155:0:0.

Extra burner if required.....each £ 5:10:0.

Two 250 m/m lenses and two Wigham 62 day single wick lamps with supply of chimneys, wick etc., in accordance with the accompanying specification..... £ 220:0:0 The two.

Extra burner if required.....each £ 3:10:0.

W.H. Hamer Esq.,
Engineer to the Auckland Harbour Board,
Engineer's Office,
Auckland, N.Z.

E. & O. E.

Place of delivery, C.I.F. Auckland Harbour.

Time,

Terms of payment,

The time of delivery named is subject to the usual strike clause, or other unforeseen contingencies.

SPECIFICATION OF NEW LAMPS AND LENSES FOR FIXED LIGHTS AT
NORTH HEAD, MANUKAU, TO BE UNATTENDED FOR TWO MONTHS AND
TO BURN KEROSENE, TO DRAWING NO. 31549: FOR THE AUCKLAND
HARBOUR BOARD.

One "Chance" Dioptric Lens of the 5th order, $14\frac{3}{4}$ "
(375 m/m) internal diameter, consisting of a belt and 6
refracting rings, all of the best lighthouse glass carefully
ground and polished, set in gunmetal framework, and to shew
a white light for 180 degrees of the horizon, the remaining
180 degrees consisting of silver plated reflector.

One "Wigham" Patent 62 day duplex lamp with strong
copper oil reservoir, patent duplex burner for $1\frac{5}{8}$ " wicks,
complete with wick and clear chimney and usual fittings,
also steel plate, copper float cylinder, solid drawn brass
wick tubes, 6 extra chimneys, 8 extra sets of wicks, 1 copper
tundish, 1 extra set of washers, 1 tin wick box, 1 extra sheet
of filtering wool, 1 set spanners, 1 set instructions and
diagram, 1 set of washers.

A separate price is quoted for spare burner.

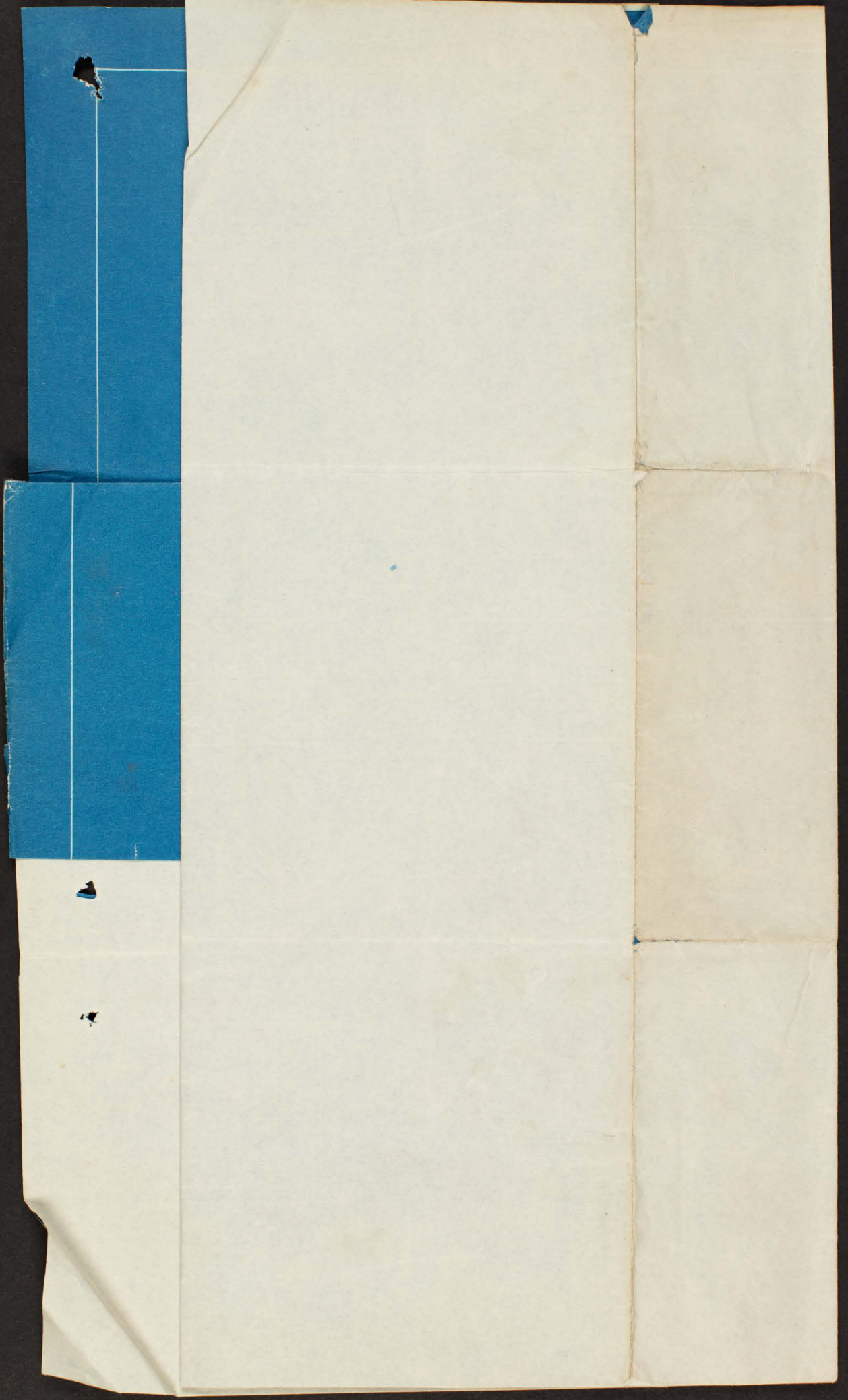
Two "Chance" Dioptric Lenses each $9\frac{3}{4}$ ", (250 m/m)
internal diameter, consisting of a belt and 4 refracting
rings all of the best lighthouse glass, carefully ground
and polished, set in gunmetal framework and to shew a white
light for 270 degrees of the horizon.

Two "Wigham" Patent 62 day single wick lamps, with strong copper reservoirs, patent burners for single $1\frac{3}{8}$ " wicks, complete with wicks and clear chimneys and usual fittings, also steel plates, copper float cylinders, solid drawn brass wick tubes, 12 extra chimneys, 12 extra sets of wicks, 2 copper tundishes, 2 extra sets of washers, 2 tin wick boxes, 2 extra sheets of filtering wool, 2 set spanners, 2 set instructions and diagram, 2 set washers.

A separate price is quoted for spare burner.

For CHANCE BROTHERS & CO., LIMITED.

Wigham



Auckland Harbour.

October 26/13.

Messrs H.G.Teagle, Ltd.,
P.O.Box 405,
WELLINGTON.

Dear Sirs,

LIGHTS, NORTH HEAD, MANUKAU.

Referring to yours of the 11th October, I
am much obliged for the information given.

The matter was deferred by the Board, but
will come up again next month, and I will then communicate with
you again.

Yours truly,

ENGINEER TO THE BOARD.

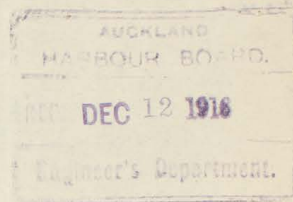
HERBERT G. TEAGLE, Ltd.

P.O. Box 405.

INDENTORS
AND
MANUFACTURERS' REPRESENTATIVES

TELEPHONE 3876.
ELEGRAMS "TEASPUR," WELLINGTON.
CODE: A.B.C. 5TH EDITION.

Wellington, 11th December, 1916.
N. Z.



W. H. Hamer, Esq.,
Auckland Harbour Board,
Engineer's Office,
Auckland.

Dear Sir,

LIGHTS, NORTH HEAD, MANUKAU.

In your favour of Oct. 26th, you advised us that our tender for conversion of your Lights at North Head, Manukau, had been deferred by the Board until their November Meeting. We are very interested to learn whether any decision has yet been arrived at in this matter so that we might advise our Principals accordingly. Your favour will therefore be esteemed.

We are,

Yours faithfully,

HERBERT G. TEAGLE, LTD.

H. G. Teagle
Managing Director

T/M.

December 16/16.

Messrs Herbert G. Teagle, Ltd.,
P.O. Box 405,
WELLINGTON.

Dear Sirs,

LIGHTS, NORTH HEAD, MANUKAU.

Replying to yours of the 11th inst., this matter came before the Committee of the Board on Tuesday last and was deferred for two months.

The cost is high and the advantage to be gained would at present be very small. I will communicate with you again when the matter is reconsidered.

Yours truly,

ENGINEER TO THE BOARD.

February 13/17.

The Chairman,

A. H. B.

LIGHTS, NORTH HEAD MANUKAU HARBOUR.

CONVERSION TO UNTENDED LIGHTS.

Referring to my previous report of May 30th 1916, suitable lights have been offered at about £400.

The saving on the present cost of running the existing lights would be roughly £100 per annum.

ENGINEER TO THE BOARD.

*Referred for
1st mo.
by (Committee Chairman)
13/5/17*

February 13/17.

Messrs H. G. Teagle, Ltd.,

P.O. Box 405,

WELLINGTON.

Dear Sirs,

LIGHTS, NORTH HEAD, MANUKAU HARBOUR.

Referring to yours of the 11th December last and my reply of the 16th December, this matter has again been before the Committee to-day, and it has been deferred for 12 months. The saving to be effected is so small that the expense would not be warranted.

I am quite certain the present lenses can be used for Wigham lights, slightly adjusted to suit them.

The lenses are in thoroughly good order, and we cannot afford to throw them out.

This may make it not worth Messrs Chance's while to trouble about so small a matter further.

Thanking you for the attention you have given to this matter.

Yours truly,

ENGINEER TO THE BOARD.

April 12th 1917.

Messrs H.G. Teagle, Ltd,
P.O. Box 405,
WELLINGTON.

Dear Sirs,

MANUKAU SOUTH HEAD.

There are two Beacons on the South Head of the Manukau Harbour which have had kerosene lamps with circular wicks supplied by Messrs Chance Brothers - probably many years ago - at any rate long before they were taken over by this Harbour Board.

The material of these lamps is still good, but they have not been giving satisfaction of late, and the Government Lighthouse expert describes them as worn out. I do not, however, think this is so, and I fancy that an adjustment only of the air to the circular wick is necessary, but I would like to know whether you would have any modern lamps with parallel and not circular wicks (more on the Wigham lamp style). The size of the lamps under discussion is 8" diameter, total depth 6", depth of oil container 4".

Yours truly,

ENGINEER TO THE BOARD.

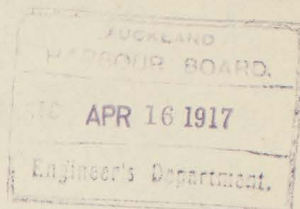
HERBERT G. TEAGLE, Ltd.

INDENTORS
AND
MANUFACTURERS' REPRESENTATIVES

P.O. BOX 405

TELEPHONE 3876
ELEGRAMS "TEASPUR," WELLINGTON.
CODE: A. B. C. 5TH EDITION.

Wellington, 14th April, 1917.
N.Z.



W. H. Hamer, Esq.,
Engineer,
Auckland Harbour Board,
Auckland.

Dear Sir,

Beacons - S. H. Manukau

We thank you for your favour of the 12th inst., respecting Kerosene Lamps for the two Beacons on the South Head of Manukau Harbour. Our Principals, Messrs. Chance Bros., would have no difficulty in supplying you with modern lamps fitted with parallel or duplex burners to replace the circular wick type at present in use. These would be of the "Wigham" pattern. You will find they specially mentioned this style of lamp in their quotation for new lamps, etc., at North Head, Manukau, which we sent you in Oct. last.

We shall be pleased to obtain a quotation for you if necessary and will do our best to give your favours immediate attention.

We are,

Yours faithfully,

HERBERT G. TEAGLE, LTD.

H. G. Teagle
Managing Director

T/M.

Auckland Harbour Board.

MEMORANDUM.

FROM

696

Foreman of Works

To

7 July 1916

THE ENGINEER.

Sir.

The following were taken from
Rangitoto lantern
when converted to Incandescent light.

- 2 Plates Regulation Diaphragm
- 3 Leaf Springs Regulation
- 1 Coil Spring Regulation Valve
- 1 Valve
- 1 Conical Spring Flasher Diaphragm
- 1 Plate " "
- 1 Copper Tube (to old Burner)
- 4 Small Springs Flasher
- 2 Nipples & arm "
- 1 Diaphragm leather "
- Springs & screws (Top plate lantern)
- quantity screws
- 2 Argand Burners.

I would suggest altering the spare Rangitoto Beacon lantern, from the Argand Burner, to Incandescent, in readiness for any mishap, to the one now in use.

See letter 696 1917
for alterations
Richardson
McCabe

Alfred Stenzie

X. We have nothing to make this conversion with but would have to order from home as before

Nothing else wanted (from S.O.W. 2/2/17)

Auckland Harbour Board.

MEMORANDUM.

FROM

Southern Works

To

7th July 1916

THE ENGINEER.

Sir,

The following is a list of spares belonging to various lights.

Rangitoto Beacon

- 1 Lantern with Flasher ^{lens} complete. ready for immediate use
- 1 lens (now in use on light tower at King's Wharf.)
- 16 Mantles
- 4 Burner nipples
- 1 set Glasses for lantern
- 12 Brass Bolts.

Wigham Buoy

- 43 White Chimney glasses
- 38 Green " "
- 2 Sets Springs & Chains for float cylinder
- 3 Sets Flashing gear
- 2 fans for flashing gear } no value as flashing gear
- 1 Strip Chamber
- 1 Burner
- 1 lens ✓

Sandspit Light

- 1 lens ✓
- 3 Red Glasses
- 5 doz. Mantles
- 6 Nipples

Orakei

- 1 Ruby Glass
- 2 Burners

Hohimarama

- 2 Burners

C.M.

FROM

6.5/1950/30
1/8

30
50A 2 10000

185
15/15 233 165.50
882

375
31/100/121
2/21

355
30

57/627/12
112
102

copy

