

notice, dated 28th February, 1889; that a buoy, fitted with an automatic whistle, has been placed to mark Saunders Reef, about 8 miles south-eastward of Arena Point:—

The buoy, painted in vertical stripes, lies with Saunders Reef bearing N. by E. $\frac{1}{2}$ E. distant 5 cables.

Position, lat. $38^{\circ} 49\frac{1}{2}'$ N., long. $123^{\circ} 40'$ W.

WASHINGTON—ROSARIO STRAIT.

(2.) *Automatic Signal Buoy Northward of Belle Rock.*

Also, dated 20th March, 1889; that a buoy, fitted with an automatic whistle, has been placed at the edge of the kelp in 11 fathoms water, about half a cable N. by E. from Belle Rock, in the fairway of Rosario Strait:—

The buoy, painted black, and marked "Belle Rock" in white letters, gives 20 to 30 blasts every minute; but in very smooth weather it may not sound.

Position, lat. $48^{\circ} 29' 35''$ N., long. $122^{\circ} 45' 30''$ W.

NOTE.—Belle Rock uncovers at low water, and the tidal streams set over it with a velocity of 2 to 5 knots.

[The bearings are magnetic. Variation (1) 17° (2) $22\frac{1}{2}^{\circ}$ Easterly in 1889.]

By command of their Lordships,

W. J. L. Wharton, Hydrographer.

Hydrographic Office, Admiralty, London,

7th May, 1889.

This Notice affects the following Admiralty Charts:—San Diego Bay to Cape Mendocino, No. 2530 (1); Vanconver Island, No. 1917 (2); Haro and Rosario Straits, No. 2689 (2). Also, British Columbia Pilot, 1888, page 121.

NOTICE TO MARINERS.

(No. 146 of the year 1889.)

ENGLAND—EAST COAST.—RIVER THAMES ENTRANCE.

(1.) *Intended Lighting of Duke of Edinburgh Channel, and Alteration in the Positions of Tongue and Princes Channel Light-Vessels, &c.*

THE Trinity House, London, has given notice, that towards the end of the year 1889, it is intended to light Duke of Edinburgh Channel, River Thames Entrance, when the following alterations will be effected, the new light vessels and gas buoys placed:—

1. A light-vessel, to be named "Edinburgh Channel," will be placed near the position of the existing south-west Long Sand Buoy, which will thereupon be withdrawn.

2. A light-vessel, to be named "Black Deep," will be placed about midway between West Long Sand and East Knock John Buoys.

3. A gas buoy will be substituted for the present N.E. Shingles Buoy.

4. "Tongue" light-vessel will be moved about 2 miles to the eastward, and the present Tongue Knoll Buoy withdrawn.

5. "Princes Channel" light-vessel will be moved about 2 miles to the eastward, and the present Shingles Spit Buoy withdrawn.

6. A bell gas buoy will be substituted for the present S.E. Girdler Buoy.

7. A gas buoy will be substituted for the present Knock John Buoy.

8. A gas buoy will be substituted for the present Knob Buoy.

Further particulars as to the character, &c., of the lights and their exact positions will be given in due course.

SCOTLAND—WEST COAST.

(2.) *Dubh Artach Lighthouse—Intended Red Band.*

The Commissioners of Northern Lighthouses

have given notice, that in the course of the month of June, 1889; Dubh Artach (Dhu Heartach) Lighthouse, which is built of light gray granite, will be painted near its centre with one red band, 30 feet in breadth.

By command of their Lordships,

W. J. L. Wharton, Hydrographer.

Hydrographic Office, Admiralty, London,

7th May, 1889.

This Notice affects the following Admiralty Charts:—North Foreland to Orfordness, No. 1610 (1); North Foreland to the Nore, No. 1607 (1). Also, Admiralty List of Lights in the British Islands, 1889, page 34, Nos. 129, 130, 430; North Sea Pilot, Part III, 1882, pages 262–269; Hydrographic Notice, No. 8 of 1886, relating to North Sea Pilot, Part III, pages 11–14; and Sailing Directions for the West Coast of Scotland; Part II, 1886, page 161.

NOTICE TO MARINERS.

(No. 147 of the year 1889.)

BALTIC ENTRANCE.

THE KATTEGAT.—SWEDISH COAST.

(1.) *Nidingen—Intended Alteration in Eastern Light.*

THE Swedish Government has given notice, dated 24th April, 1889, that the Eastern Light (fixed white) on Nidingen will be so screened to the northward that it will serve as a leading light for the fairway.

Position, lat. $57^{\circ} 18\frac{1}{2}'$ N., long. $11^{\circ} 54\frac{1}{2}'$ E.

(2.) *Intended Leading Lights on Lilla Warholmen.*

Also, dated 24th April, 1889, that two small leading lights will be exhibited on Lilla Warholmen (Varholmen), which, kept in line, will lead into Warholm Sound.

Position, lat. $57^{\circ} 42' 45''$ N., long. $11^{\circ} 42' 40''$ E.

THE SKAGERRAK.—SWEDISH COAST.

BOHVS BAY.

(3.) *Intended Light on Stora Svängen.*

Also, that in the course of the year 1889, a light will be exhibited on Stora Svängen, southward of Koster Fiord:—

The light will show fixed white over the fairway seaward; and flashing, either red or white, over rocks and shoals.

The illuminating apparatus will be dioptric, or by lenses, of the fourth order.

Position, lat. $58^{\circ} 48' 5''$ N., long. $11^{\circ} 7' 35''$ E.

(4.) *Leading Lights on Yttre Vattenholmen and Felgdholmen.*

Also, in order that Stora Svängen Light (above-mentioned) may serve as a guide to the anchorage in Koster Fiord, two leading lights will be exhibited in the course of the year 1889, as follows:—

1. On Yttre (Outer) Vattenholmen.

Position, lat. $58^{\circ} 52' 40''$ N., long. $11^{\circ} 6' 45''$ E.

2. On Felgdholmen.

Position, lat. $58^{\circ} 52' 55''$ N., long. $11^{\circ} 3' 55''$ E.

Further particulars concerning the above-mentioned lights will be published in due course.

By command of their Lordships,

W. J. L. Wharton, Hydrographer.

Hydrographic Office, Admiralty, London,

8th May, 1889.

This Notice affects the following Admiralty Charts:—The Kattegat, No. 2114 (1, 2); the Skagerrak, No. 2289 (2–4). Also, Admiralty List of Lights on the Eastern Shores of the North Sea, 1889, No. 335, pages 86, 92; Danish Pilot, 1885, pages 20, 10; and Norway Pilot, Part I, 1888, pages 313, 317.