

French coast will (after passing the West Hinder Light 3 to 4 miles) see the Ruytingen light to the S.S.W. when Dunkerque light bears south. Vessels coming from the westward, and keeping in deep water, will see the Ruytingen light to the East on losing sight of Walde light, when Gravelines light should bear S.S.E.

Buoys.

The following nine buoys will be placed on the outer margin of the banks extending from the Bergues bank to the Riden of Calais :—

Bergues Bank.—No. 1, a *black* buoy with ball in 11 fathoms, N. $\frac{3}{4}$ E. from Dunkerque lighthouse, in lat. 51° 16' 25" N., long. 2° 18' 9" East.

Three buoys on the Great Bank of Out Ruytingen, viz. :—

North-east buoy.—No. 3, a *black* buoy with diamond, in 10 fathoms, N.N.W. from Dunkerque lighthouse in lat. 51° 12' 9" N., long. 2° 9' 30" East.

Middle buoy.—No. 5, a *black* buoy with a cylinder, in 9 fathoms, N.W. $\frac{1}{2}$ N. from Dunkerque lighthouse, and N.E. by E. from Calais lighthouse, in lat. 51° 9' 8" N., long. 2° 5' 18" East.

South-west buoy.—No. 7, a *black* buoy with a cone, point upwards, in 8 fathoms, N.E. $\frac{1}{2}$ E. from Calais lighthouse, in lat. 51° 7' 15" N., long. 1° 59' 51" East.

Three buoys on the Little Bank of Out Ruytingen :—

North buoy.—No. 2, a *red* buoy with a cone, point downwards, in 6 $\frac{1}{2}$ fathoms, N.N.W. from Gravelines lighthouse, in lat. 51° 7' 24" N., long. 1° 56' 28" East.

South buoy.—No. 4, a *red* buoy, with two cones joined at their points, in 11 fathoms N.N.W. $\frac{3}{4}$ W. from Gravelines lighthouse, and N.E. $\frac{2}{3}$ N. from Calais lighthouse, in lat. 51° 6' 2" N., long. 1° 55' 41" East.

West buoy.—No. 9, a *black and white chequered* buoy, with cone surmounted by a ball, in 6 $\frac{1}{2}$ fathoms, N.W. $\frac{1}{4}$ N. from Gravelines lighthouse, and N.N.E. (northerly) from Calais lighthouse, in lat. 51° 5' 23" N., long. 1° 51' 37" East.

Two buoys on the Riden of Calais :—

North-east buoy.—No. 6, a *red* buoy with ball, in 5 $\frac{1}{2}$ fathoms, W. by N. $\frac{3}{4}$ N. from Walde lighthouse, and N.W. by N. from Calais lighthouse, in lat. 50° 59' 40" N., long. 1° 46' 59" East.

South-west buoy.—No. 1, a *black* buoy with a double C, in 6 $\frac{1}{2}$ fathoms, W. $\frac{2}{3}$ N. from Walde lighthouse, and N.W. by W. $\frac{1}{2}$ W. from Calais lighthouse, in lat. 50° 58' 25" N., long. 1° 45' 9" East.

The buoys at the western entrance of Dunkerque roads, viz. :—

Black buoy, No. 1, and Red buoy, No. 2, will be removed about a mile to the eastward of their present position.

[All Bearings are Magnetic. Variation 19° Westerly in 1869.]

By command of their Lordships,
Geo. Henry Richards, Hydrographer.
Hydrographic Office, Admiralty, London,
8th March, 1869.

This Notice will affect the following Admiralty Charts :—English Channel, No. 2675a; North Sea, General, No. 2339; North Sea, Sheet 1, No. 1406; Boulogne to Dunkerque, No. 2610; and Dungeness to Thames River, No. 1895. Also, the French Lights List, Nos. 147 and 148; and North Sea Pilot, part IV, page 48.

NOTICE TO MARINERS.

(No. 17.)—BRAZIL.

Revolving Light at entrance of Pará River.

THE Provincial Government of Pará, Brazil, has given Notice, that since the 24th November, 1868, a vessel has been placed near the bend of the Braganza bank, entrance of the River Pará, from which a light is exhibited.

The light is a *revolving* white light, elevated 30 feet above the sea, and in clear weather should be seen from a distance of 8 miles.

The illuminating apparatus is catoptric, or by reflectors.

The light vessel has one mast, and is moored in 16 fathoms water; from her, the point of the Island of Tajoca bears S.S.E., and Guarza point S.E. $\frac{1}{2}$ E. Position, as given, lat. 0° 26' 9" S., long. 47° 54' 3" West from Greenwich.

Directions.—A vessel making for the entrance of the River Pará must, after sighting the light, keep her on the port hand, and pass half a mile from her, steering S.W. $\frac{1}{4}$ W., paying great attention to the tide, as the ebb sets towards the banks, and the flood from them.

[All bearings are Magnetic. Variation 1° 50' Westerly in 1869.]

By Command of their Lordships,
Geo. Henry Richards, Hydrographer.
Hydrographic Office, Admiralty, London,
9th March, 1869.

This Notice affects the following Admiralty Charts :—South America, East Coast, Sheet III, No. 1803; River Pará, No. 2186. Also, South American Pilot, Part I, page 161.

NOTICE TO MARINERS.

(No. 18.)—ITALY—WEST COAST.

Alteration in Breakwater Lights, Leghorn.

THE Italian Government has given Notice, that from the 1st day of March, 1869, the following alteration would take place in the Breakwater lights, Leghorn.

The red and white light exhibited on the south end of the breakwater would be replaced by a new light.

The new light is a *fixed and flashing* white light, showing a flash every minute, elevated 74 feet above the sea, and in clear weather should be seen from the distance of 9 miles.

The illuminating apparatus is dioptric or by lenses, of the 6th order.

The tower is built of light-coloured stone.

Also (from the same date) that from the lighthouse on the north end of the breakwater a sector of green light would be exhibited through an arc of 65 degrees seen from, and embracing the extent of, the Meloria bank.

Directions.—Vessels in the neighbourhood of Meloria bank will avoid too close an approach to it on the north and south, by keeping the white portion of the north breakwater light in sight.

GREECE—GULF OF CORINTH OR LEPANTO.

Fixed Red Light on Cape Morno.

THE Greek Government has given Notice, that from the 27th day of January 1869, a light would be exhibited from an iron column with a base of masonry on Cape Morno, near the mouth of the River-Morno.

The light is a *fixed red* light elevated 46 feet