NOTICES TO MARINERS.

By the Dominion Department of Marine.

All bearings, unless otherwise noted, are magnetic & are given from seaward, miles are nautical miles, heights are above high water, & all depths are at mean low water.

No. 15, APRIL 7.-IMPROVEMENTS IN AIDS TO NAVIGATION IN THE ENTRANCE TO PARRY SOUND, ONT .-- 1. Buoy on Seguin Bank .-- On the opening of navigation this year a platform buoy, surmounted by a pyramidal slatwork painted black, the pyramid surmounted by a white flag, will be moored in 5 fathoms water immediately south of the shoalest part of Seguin Bank, Georgian Bay, in the approach to Parry Sound. It is proposed, later in the season, to replace this buoy by a steel gas buoy. Due notice will be given of the change.

- 2. Buoyage of the Main Channel.—The main channel between Seguin Bank & Cameron Island will be marked on the opening of navigation by 17 spar buoys placed close to the channel side of every shoal. The positions, color & number of the buoys are as follows :-
- 1. Extra heavy black buoy on Red Rock Shoal (McGowan Shoal).
- 2. Extra heavy red buoy on Knight's Shoal.
 3. Black buoy W.N.W. of Three Star Shoal.
 - 4. Red buoy on Three Star Shoal.
 - Black buoy on Vankoughnet Ground.
 - Black buoy on Vankough
 Red buoy on Ariel Rock,
 - Black buoy off Twin Rock.
 - 7. Black buoy of 1 win Ko 8. Red buoy on Hall Reef.
 - Black buoy off Ardent Rock. 10. Red buoy on Telegram Rock.
- 11. Black buoy N. of Lyon Rock.
 12. Red buoy N. of Hooper Island Shoal. This may later be replaced by a gas buoy.
 13. Black buoy on Nias Island Shoal.
 - 14. Red buoy on Hooper Island Shoal.
- 15. Black buoy on west extremity of Carling Rock Shoal.
 - 16. Red buoy W. of Hugh Rock.
- 17. Black buoy on east extremity of Carling Rock Shoal.

The buoy shown on Admiralty chart no. 1731, on the north-east extremity of Nias Island Shoal, will not be replaced, & the buoys on the south edge of Carling Rock Shoal will be moved in position.

3. Light on Depot Island.—A lighthouse is in course of erection at the western extremity of Depot Island, at the entrance to Depot Harbor. Until the lighthouse is completed a fixed white light will be shown from a lantern hoisted on a pole or exhibited from the unfinished lighthouse tower, from a height of 30 ft. above the water.

Sailing directions, which will appear in the forthcoming edition of the Georgian Bay & North Channel Pilot, replacing "Directions to Cameron Island by main channel," are given in the notice, but are omitted here owing to their length.

No. 16, APRIL 14.—RAILWAY BRIDGE AT LACOLLE, QUE.—The railway bridge described in Notice to Mariners no. 34 of 1897 over the Richelieu River, at Lacolle, has been completed, & the passage on either side of the pivot pier may now be used. At night the centre of the swing is marked by a light on top of the iron work which shows white when the draw is open & red when closed. In addition each of the four guide piers is marked by a white light. This notice affects Admiralty Chart 797.

No. 17, April 18.—Lake St. Clair, Twenty-Foot Dredged Channel.—Notice is given by the U.S. Lighthouse Board that, on or about April 15, 1898, lights, as follows, will be established to mark the lower reach of the Lake St. Clair 20-foot dredged channel:

Isle aux Pêche range beacon lights.—Front light .- Two fixed white lens-lantern lights, 10 ft. apart horizontally, in line across the axis of the channel, & 18 ft. above lake level, on a cluster of piles on the prolongation of the axis of the dredged channel, in about 19 ft. of water, about 2,000 ft. south-westerly from its lower end. The north-westerly of the 2 lights will illuminate 180° of the horizon to the northward of N. E. by E. 1/8 E. & S. W. by W. 1/8 W., so that, in coming up the Detroit River on the Windmill point range line, this light may be run for as soon as it becomes visible. The structure carries a white day mark. In passing vessels must keep to the westward of passing vessels must keep to the westward of this light. Bearings of prominent objects from the light are: Outer end Grossepoint club house dock, N. by E. 3/4 E.; Lower entrance (E. side) beacon light, N. E. 3/4 E., about 4,100 ft.; Windmill point lighthouse, W. 5/8 S.

Rear Light.—Two fixed white lens-lantern lights, 10 feet apart horizontally, in line across the axis of the channel, & 38 feet above lake level, on a cluster of piles in about 8 ft. of water, on the prolongation of the axis of the dredged channel, about 4,650 ft. S. W. ¼ W. in rear of the front light. The 4 lights of this range mark 2 range lines parallel with & 5 ft. on either side of the axis of the dredged channel. When at the upper end of the channel, about abreast of Grossepoint light vessel, with the lights open so that the rear light of one range is in range diagonally across the axis of the channel with the front light of the other range, the observer would be about 40 ft. from the axis of the channel & could safely increase the apparent horizontal distance between the lights about 8 times without approaching too close to the line of buoys marking the edge of the channel. About midway between the light vessel & the lower end of the channel the apparent horizontal distance between the lights may be safely increased to 16 times, & still further increased as the lights are approached.

Lower entrance (W. side) beacon light.-A fixed white lens-lantern light, 14 ft. above lake level, on a pile cluster in about 17 ft. of water on the westerly side of the lower entrance to the dredged channel. Bearings of prominent objects from the lights are: Outer end Grossepoint club house dock, N. by E. 1/2 E. Lower entrance (E. side) beacon light, E. N. E. 3/8 E. Windmill Point lighthouse, W. S. W. 3/8 W.

Lower entrance gas buoy.—On the same date this black buoy, showing a fixed white light during periods of 10 seconds, separated by eclipses of 10 seconds, marking the westerly side of the lower entrance to the dredged channel, will be discontinued.

Lower entrance beacon light.—On the same date the color of this light will be changed from white to red, & it will hereafter be called "Lower entrance (E. side) beacon light." This notice affects Admiralty Charts 330, 332 & 678.

No. 18, APRIL 22.—TORONTO EAST PIER LIGHTS.—The small column fixed red light hitherto maintained on the outer edge of the East Pier, Toronto, has been moved N.W. by N. 2,400 ft. & now stands on the inner end of the pier, forming with the new front tower which has been erected on its former position a range showing the line of the pier. The light is, as heretofore, fixed red, elevated 18 ft. above the lake level & can be seen from all points of approach from the bay. The new skeleton tower stands on the position formerly occupied by the column light. Lat. N. 43° 37′ 48″. Long. W. 79° 20′ 20″. The light is occulting red, bright 6 seconds with intervals of darkness of 6 seconds. It is elevated 43 ft. above lake level, & should be seen in clear weather at a distance of 8 miles, over an arc of 180° from N.N.E. around to S.S.W. The apparatus is dioptric of the 6th order. The building consists of a steel skeleton framework surmounted by an enclosed top & lantern. The framework is painted red, the enclosure & lantern white & the roof red. The height of the building from base to vane is 40 ft. This notice affects Admiralty Charts 678, 797

No. 19, APRIL 26.-MINES IN U.S. HAR-BORS. - Information has been received by this Department that mines have been laid in Boston Harbor. The entrance to Nantasket Roads by Fort Warren & the Broad Sound Entrance to President Roads are dangerous to all vessels. Steamers must only enter or leave the harbor at high tide & through the

ROOF YOUR BUILDINGS

with the genuine All Wool Mica Roofing offered the public. Not affected by heat or cold—being wool it is pliable and yields to the frost strain. Is perfectly water, wind and fire proof: 7 years' experience has proved that fact. Samples and testimonials sent on application to

W. G. FONSECA, 705 Main St., Winnipeg.

A. HOLDEN & CO.

MANUFACTURERS AGENTS and RAILWAY SUPPLIES

AGENTS FOR

The Positive Lock Washer, for Rails, Frogs, Trucks, etc. Elliotts Metal Co., Ltd., Brass and Copper Tubes, Sheets, etc. Daniels' Patent P.P.P. Diagonal Rod Packing. Patent Stamped Brass Moulders, Letters and Figures. Thyssen & Co., Locomotive Boiler Tubes.

132 St. James Street.

MONTREAL

River and Gulf of St. Lawrence

The A 1 Steamships of the

BLACK DIAMOND LINE

Leave Montreal about every week or ten days during season of navigation, for

Charlottetown, P.E.I. Sydney, C.B St Johns, Newfoundland

For particulars as to FREIGHT and PASSAGE apply to

> KINGMAN & CO.. 14 Place Royale, Montreal, Can.