## Canadian Notices to Mariners.

The Department of Marine has issued the following:—

Alaska.—Light buoy 4 has been established off Bar Point, Tongrass Narrows, showing a fixed red light at an elevation of 8 ft. on a scow float with red slatted superstructure.

British Columbia, Haro Strait, and Boundary Pass.—The Dominion Government will during this year have the currents in Haro Strait and Boundary Pass examined. The C. G. S. Armentieres will be anchored at different places between Discovery Island and east points. She will display the usual day and night signals for a ship unable to manoeuvre, and in foggy weather will sound one long blast of the whistle followed by two short blasts. Ship masters are requested to keep a lookout for her when in these waters and give her a safe berth in passing.

British Columbia, Strait of Georgia, Fraser River.—Three red conical buoys have been established to mark the south side of the new dredge channel north of Westham Islands which leads into the new main channel, north of Brush Island, of the Woodward group. Mariners proceeding by river will, after passing black can buoy 25 head 99° on the alignment of the Woodward range, leaving the three conical buoys on the starboard hand. The dredged cut marked by the above buoys is approximately 5,000 ft. long and 300 ft. wide in center, widening to 500 ft. at each end.

British Columbia, Vancouver Island.—
The commanding officer of C.G.S. Stadacona reports the existence of a rock on the south side of Pipestem Inlet, off a small islet north of Georgina Point; the north end of Image Island in line with the south end of Refuge Island bearing 290° (s. 85° w. mag.) leads over the rocks; the westernmost peak on Black Mountain bearing 41° (n. 16° E. m) marks the position of the rock, which is 6 ft. wide and about 40 ft. long parallel with the shore, with deep water all round; it is not marked by kelp and has only 1½ ft. of water over it at low tide. Cape Breton Island. — The Fourchu

Cape Breton Island. — The Fourchu bell buoy, on the southeast coast of Cape Breton Island, has been moved to a new position about 1,500 ft. from Fourchu Head lighthouse.

Lunenburg. — The Luenburg Marine Railway Co. is rebuilding patent slips 1 and 2, and building a new slip 3, in Luenburg harbor.

New Brunswick, Bay of Fundy.—The fixed white light on Midgik Bluff, at the entrance to Magaguadavic River, Passamaquoddy Bay, has been replaced by an occulting white light, automatically occulted at short intervals. The light is unwatched.

New Brunswick, Northumberland Strait, Richibucto Cape.—Without further notice range lights will be established; character, fixed white light; order, 7th dioptric; elevation, 25 ft.; visibility, 5 miles from all points of approach from water; lights in line lead boats of shallow draft into shelter behind the breakwater.

New Brunswick, St. John Harbor.—The Partridge Island light and bell boat in St. John harbor, Bay of Fundy, will be replaced by a black steel cylindrical gas and bell buov showing an occulting white light, in 26 ft. of water, near the east end of Partridge Island.

Northumberland Strait.—The front light on the channel range at Richibucto harbor entrance, in Northumberland Strait, has been moved 42 ft. north of its old position and about 665 ft. from the back light.

The north beach range lights in Richibucto harbor, Northumberland Strait, have been moved, the front light on the shore behind breakwater, 58 ft. north of its old position, and the back light about 40 ft. north of its old position, and 345 ft. from the front light.

The bar range lights in Richibucto harbor, Northumberland Strait, have been moved, the front light about 100 ft. east of the old position and the back light about 1,400 ft. east of the old position and 275 ft. from the front light.

Newfoundland.—A flashing red acetylene gas light, showing a flash of 0.3 sec. duration, for 3 seconds, has been established at Square Head, on the north side of Bonavista Harbor, Bonavista Bay. The light is at an elevation of 57 ft., on a white square wooden pyramidal tower.

Nova Scotia, Cape Breton Island. — The Fourchu whistle buoy, on the south coast of Cape Breton Island, off Fourchu Inlet, has been moved to a new position, a quarter of a mile from Pot rock.

Nova Scotia, Annapolis. — The fixed white electric light on the outer end of government pier, Annapolis wharf, has been discontinued.

The Bass Rock buoy, consisting of a red wooden spar, in 54 ft. depth, and the Frying Pan Bar buoy, consisting of a black wooden spar, in 48 ft. depth, have been established in the Canso harbor approach.

Eight spar buoys, 4 red and 4 black, have been established to mark the channel from the point of beach, opposite Shingle Point lighthouse, northward to Grants Island ledge, at Port Herbert.

Nova Scotia, southeast coast, entrance to Prospect Harbor.—On rock at eastern end of Saul's island, a gas beacon has been established showing an occulting white acetylene light, automatically occulted at short intervals, and consisting of a red lantern on a white pole with black steel tank at base; the light is unwatched, has an elevation of 28 ft., and is visible for 7 miles from all points of approach.

Ontario, Bay of Quinte.—Without further notice, the fixed white light on the pier, on the north side of the channel, will be replaced by an occulting white acetylene light, automatically occulted at short intervals. The light will be unwatched.

Ontario, Georgian Bay.—Change in position of range lights,—front light, on east side of mouth of Nottawasaga River, 247 ft. northeast of old site; back light, 264 ft., 111° 10′ from front light; the alignment leads over the bar outside the mouth of the river, with a least depth of 5 ft.

Ontario, Lake Huron and Georgian Bay.—A new edition of sailing directions for Canadian shores on Lake Huron and Georgian Bay, has been published by the Naval Service Department's Hydrographic Survey. Price 25c.

Ontario, Lake Huron, Georgian Bay.— Beacons in the inside channel, between Penetanguishene and Parry Sound, have been rebuilt, as follows: Red Rock beacon, on summit. white wooden, diamond shaped, slatwork daymark; Kerr Island beacons, on south shore of island, white, wooden, diamond shaped, slatwork daymarks; Kings Bay (Big Davids Bay) beacons, on south shore of island, south of Kings Bay, white, wooden, diamond shaped, slatwork daymarks.

Ontario, Lake Ontario. — While improvement.

Ontario, Lake Ontario. — While improvements are in progress in Toronto harbor, mariners are warned that they must use caution when approaching these works. All sunken obstructions are marked by white lights from sunset to sunrise, and all danger areas buoyed according to regulations. Mariners wishing to berth at the Canada Steamship Lines westerly dock, will find not less than 16 ft. of water between the buoys and the mainland.

Ontario, Lake St. Clair.—Without further notice, the gas buoy that was adrift will be replaced on its former position, at the outer end of the dredged cut, 1½ miles 320° 30′ from the Thames River main light.

Ontario, Lake Superior, Thunder Bay, Port Arthur Harbor.—On or about Jupe 1, the occulting white light on the cribwork block, 31 ft. from the south end of the northerly breakwater, will be changed to an occulting red light.

Ontario, Lake Superior.

Ontario, Lake Superior.—An auxiliary hand fog horn has been placed at the lighthouse at Davideaux Island, on the south side of Michipicoten Island, will be sounded should the fog bell become disabled.

The light on the northwest extremity of Otter Island will be re-established without further notice. Its character will be flashing white catoptric, showing one flash every 8 seconds, for half the time between flashes, or 4 seconds. light will be totally eclipsed for the remainder of the time, a fixed light of 450 c.p. will be visible through which the stronger flash will show, the naked light will be 450 c.p. and the flash 20,000 c.p., the illuminant being petroleum vapor burned under an incandescent mantle.

Ontario, Ottawa River.—A black wooden spar buoy has been established on the north edge of shoal, about 3,750 ft. west of Carillon dam, at the west entrance to Carillon Canal.

Prince Edward Island, North Rustico Harbor.—A red bell buoy, of the steel cylindrical type, marked Rustico, in white letters, has been established off the entrance to the harbor, 1½ miles from North Rustico main light.

Prince Edward Island, Northumber-land Strait.—Whistle buoy off the south extremity of Tryon shoals has been replaced by a red gas and bell buoy, of the steel cylindrical type, showing an culting white light.

Prince Edward Island, Northumber, land Strait, Little Sands.—On shore, inner end of breakwater, a fixed red light, 7th order, dioptric Chance duplex lamp, at an elevation of 54 ft. on a white square wooden tower 13 ft. high, has been tablished, visible from all points seaward.

Quebec, Gulf of St. Lawrence. Points submarine bell buoy off Fame about half a mile north of the lighthouse has been withdrawn.

Quebec. Lower St. Lawrence River. During June, July, August, September and October the Geodetic Survey Branch of the Interior Department will be using signal lamps for surveying purposes along the north and south shores of the lower St. Lawrence River. Mariners are warned that they must not confuse these