arisen, & the imperative need of such service is conceded. If there existed across or through the Great Lakes natural winter channels like that which is open to-day from Wheatley, Ont., via Point Pelee, Pelee Island & Kelley's Island to Sandusky, Ohio, to the eastward of the Islands, entirely free of ice all winter long, simply because the ice is held up the lake by the chain of islands, then this winter navigation would be but a simple problem. If, then, we may say that this question is no longer a matter of doubt, the only question remaining is the financial one, 'Will it pay'?
I think so. By the building of a few powerful steamers, with bows very like the ordinary whaleback, but especially strengthened to stand the strain of ice-breaking, & with a beam somewhat greater than her consorts, $\frac{s_0}{c}$ as to give room for their ready passage in her wake, a steamer

or heavy steamers can be built which will head the van & be the pilots of their fleets.

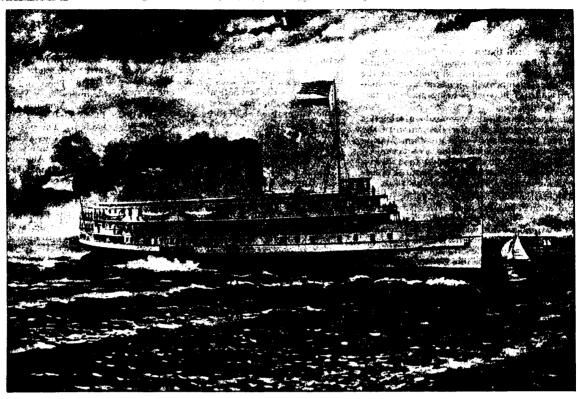
As all the nautical world knows, the modern ice-breaker does not cut, she simply rides the ice down by & under her receding stem, as she glides over & bears it down beneath her. The ponderous hulls which crowd our waters, with only slight modifications, can be made to work both winter & summer, & the additional expense, especially if these vessels lead fleets of freighters, will not be a bar to success."

Richelieu & Ontario Navigation Co.

At the meeting of directors, Mar. 8, Capt. H. Esford was appointed commanding officer of the new steamer Toronto. The new vessel was naturally a prize which was looked on with envy by a great many of the old commanders in the fleet, & there has been a good deal of rivalry as to who would secure it. Capt. Esford was the choice of the committee of management, & the directors endorsed the decision. Capt. Esford was commanding officer of the Corsican, & has been in the employed of the Corsican, & has been in the corsican of the Corsican ploy of the Corscan, & has been in the ploy of the Co. as pilot & officer for a good many years. Capt. McGrath, who commanded the Corscan, which has the constant to the co ed the Bohemian last year, will take the Corsican, while the Bohemian will be under Capt. Dunlop. Capt. Esford is a resident of Barriefield, a suburb of Kingston, & is well known, Particularly at the ports touched by the Western line, as he is the oldest captain in the Co.'s employ on that line. We mentioned him last July as the man who would get the position and our forecast has been borne out.

The other appointments are as follows:-Capt. Boucher, for the str. Onebec; St. Louis, the Montreal; Gouin, the Berthier; E. Gouin, the Terrebonne; Raymond, the Cultivateur; paulin, the Chambly; Dougal, the Canada; Riverin, the Carolina; Lapierre, the Saguenay; Grange, the Spartan; Crepeau, the Mouche-a-Feu; Berthiaume, the Sorel; & Faubert, the Riviere-du-Loup.

The time table for the coming season has been arranged. The mail steamers will this summer leave Toronto at 2.30 p.m. daily, instead of the steamers will the steamer the steamers are the steamers. stead of 2, which was the time during previous



RICHELIEU AND ONTARIO NAVIGATION CO.'S STEAMER TORONTO.

The only boat making a call at Charlotte, N.Y., will be the Toronto. In Toronto she will dock at the Yonge Street slip side of Milloy's wharf, the old wharf being too short for her.

In January we published an illustration of the str. Toronto from a photograph taken in Toronto Bay. The illustration published on this page is from a drawing which the management has had made, & which is more of a broadside view.

L. E. & D. R. R. Co.'s Lake Eric Line.

The Lake Erie & Detroit River Rv. Co.'s car ferry Shenango No. 1, after being stuck in the ice on Lake Erie for 5 weeks, made Port Stanley on Mar. 1. W. Blanck, who went from Detroit to release her by the use of dynamite, said on his return: "When we tried to get out to the craft the first time she was about 15 miles out in the lake off Port Burwell. We made a trip toward her for 8 miles over the ice & then struck clear water & were forced to take to the open boat we had along with But the ice crushed in about the sides of our skiff & we were forced to turn back. We made the attempt again the next day, crossing the wide stretch of ice on skates & pulling behind us a flat boat fitted with runners. The ice we went over was firm & glassy, though only from 1 to 4 ins. thick. We reached the boat the next day & cleared away the ice around her with dynamite. Then we got the ferry to about 21/2 miles below Clear Creek, but were again blocked at this point. We saw it was no use to make further efforts till the weather moderated & the ice in some measure cleared away. It is now piled up far higher than the gunwales of the craft, & I am not exaggerating when I say it is fully 40 ft. thick." It may be added that when the Shenangos, Nos. 1 & 2, were running for the former owners they met with similar difficulty. They are not high-powered car carriers of the kind that are used in the Straits of Mackinac, & in crossing a long stretch of open water on Lake Erie they are not able to keep up a regular service, even in the heavy weather of fall months

The Co. is overhauling the str. Flora at Sandwich, in fact she is practically being rebuilt & put in first-class shape. The old boilers & engine are being replaced by new ones. She is also being refurnished throughout with electric light. The improvements will cost from \$25,000 to \$30,000. She is expected to be ready for service by the end of May or middle of June, when she will run on the Cleveland, Rondeau & Port Stanley route in connection with the Co,'s railway.

In the railway betterment news on an earlier page of this issue mention is made of the slip dock to be built by the Co. at Rondeau. When it is completed, early in June, the Shenango No. 1 will call at that port in addition to Port Stanley. It is not the intention to abandon Port Stanley or Port Dover. When the arrangements are completed at Rondeau the Shenango, & perhaps other ferries, will be run between Conneaut & Rondeau & Sandusky & Rondeau.

E. C. Walker, Walkerville; F. H. & J. H. Walker, Detroit; Dr. S. A. King, Kingsville, & W. Woollatt, Walkerville, are applying for incorporation as the Lake Eric Navigation Co., Ltd., with a capital stock of \$40,000.

Dominion Notices to Mariners.

The Department of Marine has issued the following notices :-

No. 8, Feb. 24. North Atlantic Ocean, off

Nova Scotia. -- Dangerous wreckage.
No. 9, Feb. 27. New Brunswick. - 1. Beaver Harbor whistling buoy. 2. Change in position of the back range-light on Pointe du Chêne railway wharf.

No. 10. Nova Scotia.—Buoyage of West Dublin Bay and Crooked channel.

General Shipping Notes.

The str. Pro Patria, which runs between Halifax & St. Pierre Miquelon, is being equipped with electric lights.

Capt. J. McGowan, last year on the Ottawa River Navigation Co.'s str. Duchess, will