

to Vancouver, arriving there May 23, where she will be repaired. Her bow was badly stove in, but there was but little other damage.

Lake Vessels for the Atlantic.

Some years ago it was confidently expected that the whaleback type of vessels which has done so much for navigation on the Great Lakes, would eventually become a factor in the Atlantic trade, and although a number of vessels of this type entered into the ocean trade some years ago, and have met with no little success, they have not made the advancement in the ocean trade that had been hoped for this type of vessels. Whaleback barges owned by Rockefeller are now, however, en route to Europe, having refitted at New York for the sea service.

Of the 10 vessels under construction in lake ship yards for the Atlantic service four are completed. These are owned by the International Steamship Co., a concern organized early in the year. These four vessels will serve as freight carriers between New York, Cuba, Porto Rico and South America. Four steamers are under construction at South Chicago for a syndicate composed of New York and Chicago capitalists, and they will form the nucleus of a big fleet of carriers which will engage in the packet freight and grain trade between Chicago and Liverpool. Owing to the limitations of the canals connecting the lakes with tide water all the vessels being built at Lake shipyards for ocean service are about 250 ft. in length.

The new vessels of the International Steamship Co. afford good examples of the Lake craft now being constructed for the Atlantic trade. They have a length of 256 ft. over all and a length on keel of 252 ft. The moulded breadth of the steel hull is 42 ft., and the moulded depth is 26 ft. 5 ins. These vessels are fitted with quadruple expansion engines, with cylinders 15, 23, 35 and 54 ins. in diameter, which will be supplied with steam by two water tube boilers with a steam pressure of 250 lbs. The argument of builders of regular ocean craft that a vessel's machinery must be located amidships is disputed by the builders of lake vessels, and the boilers and engines of all these lake craft for the Atlantic trade will be located aft, and thus, by the special hull construction, they will be able to carry larger cargoes than the regular ocean vessels of like draught. By thus carrying the same cargo as is now carried by regular ocean craft of greater draught these ocean-going vessels will be able to discharge cargoes at those ports, where lightering systems are now in vogue, without the use of lighters, and thus they hope to outbid the regular sea-going craft for such trade.

The Tampico and the Eureka, two first-class steel ships, which traded on the lakes last season, are on the coast. They are sister ships and models of their type. As they possess a very large carrying capacity they can be operated at a comparatively small expense. The Simon J. Murphy is another type of Lake ocean-going vessel which was built last summer. The Rockefeller interests, among other large Lake shipping concerns, will now give the Atlantic shipping business a thorough test, and in case there is a reasonable chance of profit a large fleet of these boats, many of them of the whaleback type, will be sent to the coast next fall. The Carnegie Steel Co. last year despatched the steamer Monkshaven from Conneaut, Ohio, to England, laden with a cargo of 1,001 tons of steel billets, this being the first lake vessel to carry the product of this great iron and steel firm abroad. After passing the Canadian locks she took on a shipment of pulp wood. Were it not for the locks she could carry direct from the lakes 2,000 tons of steel. The Carnegie Co. has under construction a number

of vessels which are being built with a view to engaging in the ocean carrying trade, and it is now proposed to ship much of the product of this great manufacturing concern to Europe via the Lakes. The vessels being constructed by the Carnegie Co. will engage in the ore-carrying trade during the open season on the lakes, and in the winter will be despatched with cargoes of finished product to Europe, and, during the season, will ply regularly between the Atlantic coast and European ports, and thus carry much of the trade of the Carnegie Co. now shipped by the regular ocean lines.

Appropriations for Canals, Harbors, Etc.

At the last session of the Dominion Parliament the following expenditures were authorized for canals, waterways, etc.

CHARGEABLE TO CAPITAL.

Sault Ste. Marie canal entrances....	\$100,000
Trent Valley canal, construction....	616,500
" " " Young's Point dam.....	7,000
Soulanges canal, construction and equipment.....	300,000
Lake St. Louis, surveys.....	6,000
Lake St. Frances, removing shoals..	25,000
" " protection walls..	600
Cornwall Canal, enlargement.....	132,500
" " dredging.....	16,480
Ferran's Point canal, enlargement ..	10,000
Rapide Plat canal, ".....	75,000
Galops canal, ".....	465,000
Forming north channel.....	30,000
St. Lawrence river and canals, surveying and buoying.....	52,000
St. Lawrence ship channel.....	419,000
St. Lawrence river, additional dredge	250,000
River Kaministiquia.....	10,000
St. Andrew's rapids, Red River....	175,000
Port Colborne, harbor improvements	190,000
Lachine canal.....	606,600
Culbute canal.....	1,600
Welland canal, bridge.....	10,500
" " deepening.....	430,000
Rainy River, Fort Frances locks....	25,000
Port Arthur, extending breakwater..	75,000
Montreal harbor.....	250,000

INCOME ACCOUNT.

Rideau canal.....	\$ 8,900
Welland canal.....	111,800
Lachine canal.....	30,000
Chambly canal.....	10,000
St. Ours locks.....	12,100
Trent Valley canal.....	33,700
St. Peter's canal.....	200
" " to settle claims....	9,222
Carillon & Grenville canal.....	30,000
Culbute canal.....	265
Harbors and rivers, Nova Scotia....	278,025
" " Prince Edward I..	85,950
" " New Brunswick..	255,900
" " Maritime Prov's..	10,000
" " Quebec.....	542,070
" " Ontario.....	486,100
" " Manitoba.....	19,600
" " N.W.T.....	5,000
" " British Columbia	68,700
" " generally.....	5,000
Dredging.....	742,000
Lighthouse and coast services....	638,560
Lighthouse improvements.....	163,000
Hydrographic surveys.....	16,000
New steamer for hydrographic surveys.....	50,000
Marine hospitals.....	41,000
Marine hospital at Louisburg.....	12,000
Steamboat inspection.....	29,500
Construction of new steamers.....	200,000
Repairs to steamers.....	36,500
Lewes and Yukon rivers.....	78,000
Aids to St. Lawrence navigation....	30,000
Life saving station, Lake Erie.....	2,000
New international signal code.....	3,000

CHARGEABLE TO COLLECTION OF REVENUE.

Repairs and operating expenses....	\$616,630
Additional employes.....	15,000
Salaries and contingencies.....	34,730
Repairs.....	32,050
Special services.....	1,054
Harbors and rivers, Nova Scotia....	21,002
" " New Brunswick..	4,200
" " Maritime Prov's..	
generally.....	3,000
" " Quebec.....	10,603
" " Ontario.....	18,428
" " Manitoba.....	2,825
" " B.C.....	750
" " generally.....	2,500
Dredging.....	28,800
St. Peter's canal staff.....	500

Toronto Navigation Company, Ltd.

Letters patent were issued May 11, under the Ontario Companies Act, incorporating W. T. McMahon, a clerk in the office of Sawyer, Ross & Co., brokers, Toronto; J. S. Lovell and W. Bain, clerks in the law office of Blake, Lash and Cassells, Toronto; A. D. MacArthur, Toronto, manager of the J. C. McLaren Belting Co., and R. S. Hicks, of Toronto, as the Toronto Navigation Co., Ltd., with an authorized capital of \$100,000, McMahon, Lovell and Hicks being named as the provisional directors. The officers since elected are:—President, E. L. Sawyer, broker, Toronto; Secretary, A. M. Colquhoun, of Sawyer, Ross & Co.'s office; Treasurer, H. C. McLean, publisher, Toronto; Manager, R. S. Hicks, formerly with the Northern Navigation Co. It is said a little over \$50,000 of the stock has been subscribed and paid up, partly in cash, some of the stock being issued free from call.

The Co. has bought the steamboat Queen City, which has been renamed the Canada. She is a screw steamer, built at Wallaceburg in 1874, her dimensions being:—length 123 ft. 2 in., breadth 25 ft., depth 8 ft. 7 in., tonnage: gross 312, register, 209. The Queen City was originally the Steinhoff and at one time, probably when she was first built, ran from Chatham, later she was used as a ferry between Fort Erie and Black Rock. Subsequently she was run from Victoria Park to Toronto, by the Victoria Park Steamship Co., and in 1898 was in the fruit trade plying between Toronto and the Niagara River district. She was not run during 1900. Four years ago she was overhauled, when new deck planking was put in and other repairs carried out. Two years later new engines and boilers were supplied, and the section of hull under the engines renewed and strengthened, and last winter the interior of the vessel, fore and aft, was gutted and reconstructed. The Co. is said to have paid about \$12,000 for her. She will be under the command of Capt. Sullivan, formerly of the Argyle.

The Co. has also bought the old Dominion Government cruiser Druid, an iron side-wheel steamer, built in 1856, the builders not being known so far as the records show. Her dimensions are:—length, 160 ft.; breadth, 21 ft. 6 in.; depth, 9 ft. 6 in.; tonnage: gross, 239; register, 166. She is being overhauled and fitted for passenger traffic and will be renamed the Niagara.

The boats are intended to run between Toronto, Niagara-on-the-Lake and Youngstown, N.Y. At Toronto they will use the west side of Geddes' wharf. At Niagara-on-the-Lake a wharf has been built a little up stream from the Niagara Navigation Co.'s wharf. At Youngstown connection will be made with the Youngstown and Lewiston Electric Railway, which the T. N. Co. is said to have an option on for about \$160,000, having paid \$1,000 down. The Canada has commenced running and the Niagara will, it is said, start in July.