

TRAFFIC THROUGH CANADA'S CANALS

Traffic through the canals of Canada in 1916 showed an increase of 8,384,688 tons. The total volume was 23,583,491 tons, though, as pointed out by Mr. J. L. Payne, comptroller of statistics, this tonnage includes duplication. It represents the business through all the canals and the same cargo often passes through two or three separate canal systems. After eliminating all duplication the net tonnage is given as 21,011,905 tons. The distribution of gross traffic in tons was as follows: Sault Ste. Marie, 16,813,649; Welland, 2,544,964; St. Lawrence, 3,368,064; Chambly, 398,977; St. Peter's, 9,629; Murray, 46,680; Ottawa, 237,651; Rideau, 105,430; Trent, 45,000; St. Andrew's, 13,438.

The traffic as analysed is as follows:—

| | Tons. |
|-----------------------------|------------|
| Agricultural products | 5,178,806 |
| Animal products | 11,342 |
| Manufactured products | 834,266 |
| Forest products | 1,388,873 |
| Mine products | 16,170,204 |

The total volume of Canadian wheat moved through the canals of Canada and the United States at Sault Ste. Marie in 1916 was 185,003,667 bushels. Of this quantity, 82,807,342 bushels passed through the Canadian canal. Larger accommodation on the American side of the St. Mary's River probably accounts for the preference given that channel.

The growth since 1895 in the volume of Canadian wheat annually carried through the Canadian canal at Sault Ste. Marie is seen from these figures: 1895, 1,087,800 bushels; 1900, 5,573,267 bushels; 1910, 51,774,833 bushels; 1913, 101,066,133 bushels; 1916, 82,807,342 bushels.

The comparison of 1915 and 1916 is as follows:—

| Through the | 1915. | 1916. |
|----------------------|-------------|-------------|
| | Bushels. | Bushels. |
| Canadian canal | 48,727,911 | 82,807,342 |
| American canal | 121,389,950 | 102,196,325 |
| Total | 170,117,861 | 185,003,667 |

Canadian wheat moved in the form of flour must also be brought into the account. The total quantity brought down in 1916 was 3,805,384 barrels, as compared with 2,215,098 barrels in 1915. At 4½ bushels to the barrel, this would represent 17,124,228 bushels of wheat.

The total volume of waterborne wheat in 1916 would thus be made up as follows:—

| | Bushels. |
|----------------------------------|-------------|
| Through the Canadian canal | 82,807,342 |
| Through the American canal | 102,196,325 |
| In the form of flour | 17,124,228 |
| Total | 202,127,895 |

The distribution of Canadian wheat, moved through the Canadian and American canals at Sault Ste. Marie from Port Arthur-Fort William in 1916, was as follows:—

To Montreal, 1,233,982 bushels; to Georgian Bay ports, 46,406,749 bushels; to other Canadian ports, 28,029,847 bushels; to Buffalo, 106,349,943 bushels; total, 182,020,521 bushels.

To account for all the Canadian wheat shipped eastward by water in 1916 there must be added the quantity passed through Duluth in bond. The complete statement would therefore be as follows:—

From Port Arthur-Fort William and Duluth, to Montreal, 1,686,482 bushels; to Georgian Bay ports, 48,007,361 bushels; to other Canadian ports, 28,029,847 bushels; to Buffalo, 107,279,977 bushels; total, 185,003,667 bushels.

"The people of British Columbia should realize the importance of turning out vessels and steamers as fast as they can be completed," said Mr. J. J. Coughlan, of the firm of John Coughlan and Sons, in a recent interview regarding the shipbuilding programme on the Pacific Coast. "Our first boat," he said, "is well under way and will take to the water in November at the present rate of construction. We are laying the keel for the second vessel at the present time, and next week we will lay the keel for the third vessel. The second vessel will be launched in December and the third in February of next year. We are now contemplating clearing away space for a fourth keel."

SHIPBUILDERS BUSY IN NOVA SCOTIA

We have developed Nova Scotia's great coal industry. Following that its iron industry has attained international importance. So once again the opportunity presents itself of playing a part in transporting the commerce of the world. Added to this a great emergency confronts the empire. "Ships! Ships! Ships!" is the cry. This is the editorial comment in a timely shipbuilding number of the Halifax Morning Chronicle, which furnishes data regarding the shipbuilding industry of that province.

On the Atlantic Coast there are 51 wooden vessels of a total tonnage of 16,316 under construction, of which 46 are being built in Nova Scotia. Every shipyard in the province is being worked to capacity. At Lunenburg, La Hayre, Liverpool and Shelburne, attention is being mostly devoted to fishing and coasting vessels. On the French Shore, St. Mary's Bay, at Annapolis, at Parrsboro, Fox River, Port Greville, Spencer's Island, Advocate Harbor, at Hantsport and Noel, and other points, there are under construction tern schooners for the deep sea trade, varying in size from 200 to 500 tons, and there are tern schooners under construction at Liverpool and Shelburne.

At Meteghan, St. Mary's Bay, a tern schooner has been started. At Little Brook one is almost completed. There is one soon to be launched at Grosses Coques, where two more are to be started, and there are two at Belliveau's Cove. At Parrsboro there is under construction a schooner of about 600 tons, at Fox River a schooner of about 460 tons, at Port Greville a schooner of about 350 tons and another of about 200 tons. At Spencer's Island a 430-ton schooner, at Advocate Harbor a 460-ton schooner, at Hantsport a 350-ton schooner, and several large schooners at Annapolis.

The Nova Scotia Steel and Coal Company's first steel vessel which is 260 ft. in length, and has a carrying capacity of 1,900 tons is nearing completion at the Trenton shipyards. The keel has been laid for a second boat which is about 260 ft. overall, and has a deadweight capacity of about 2,400 tons, propelled by triple expansion engines. These engines will be built complete at this plant. The steam will be furnished by two Scotch boilers 11 ft. diameter and 10 ft. 9 in. long, with a working pressure of 185 lbs. per square inch. The boilers are being built by the John Inglis Company, Limited, Toronto.

Mr. Wallace Downey, a Nova Scotian, of the Downey Shipbuilding Corporation, New York, says that unnecessary costs in shipbuilding and ship operation, resulting from endless variety, is probably about 20 per cent. in excess of what the building and operating costs of the world's shipping would be if types and sizes were standardized and specialized for certain trades and uses. Twenty per cent. upon the cost of the world's shipbuilding and operation would, of course, aggregate hundreds of millions annually.

This is an unnecessary overhead charge on water transportation. He believes the cost of shipbuilding can be reduced at least 20 per cent. by standardization, and I believe the cost of operating ships can be reduced from 10 to 20 per cent. by standardization and specialization.

BURNS CEMENT-GUN CONSTRUCTION CO.

L. P. Burns, of Toronto, formerly a well-known railroad contractor, has organized the Burns Cement-Gun Construction Co., with head office in the Bank of Hamilton Building, Toronto. The company will specialize on Gunite construction.

They are now completing self-contained outfits mounted on motor trucks, the engine and compressor being arranged on a trailer, with the gun and materials on the truck itself. These portable outfits will have great facility in reaching work in any portion of Ontario.

Garages and other building work will be handled, but special attention will be given to the construction of concrete walls, floors, etc., for reservoirs, filtration plants, sewage disposal plants and other engineering work such as the coating of steel penstocks, tanks, etc. The company expects to develop as a specialty the lining of steel ships with Gunite instead of hand-placed cement mortar.