

The actual amount of sand carried by the Borgne water varies from 0.4 gramme up to 1 gramme per litre, reckoning only sand grains above 0.3 mm. diameter. The settling in the basin is, of course, not uniform; the coarse particles are found near the water inlet, finer grains further off.

MAMMOTH SHIPBUILDING PLANT UNDER WAY

The comprehensive plans and specifications prepared by the Federal Shipbuilding Company of the United States reveal the intention of the United States Steel Corporation's interests to build the largest shipbuilding plant in the world in the Hackensack meadows. Each of the ten shipways will be 450 feet to 500 feet in length, but later when more slips are provided some of the ways will be extended to permit the construction of giant ocean boats nearly 1,000 feet in length. The steel buildings will cover ten acres, including a mammoth plate mill nearly 1,000 feet in length, machine structural, fabricating and assembling shops and a great power plant. Marine boilers and engines and electric fittings will be manufactured on the premises. There also will be a wood-joining shop.

An indentation of 1,000 feet is being made into the land for the basin, which will be 220 feet wide, large enough to permit the simultaneous fitting of five or six ships after they come off the ways. Contract for dredging, excavating, pile-driving, construction of the dock and erection of the ten shipways has already been let. The 10,000 tons of fabricated steel required for the buildings will be furnished by the American Bridge Company.

Nothing will be left undone to make the plant—modelled upon the most famous Scottish yards—substantial, permanent and complete. The Steel Corporation will provide \$10,000,000, of which \$6,000,000 has already been appropriated, to build, equip and operate the initial units.

RAILROAD EARNINGS

The following are the earnings of Canada's transcontinental lines during the first four weeks in August:—

Canadian Pacific Railway.

	1916.	1917.	Increase or decrease.
August 7	\$2,985,000	\$2,559,000	— \$426,000
August 14	2,943,000	2,746,000	— 197,000
August 21	2,860,000	2,700,000	— 160,000
August 31	4,092,000	4,018,000	— 74,000

Grand Trunk Railway.

August 7	\$1,256,376	\$1,320,706	+ \$ 64,330
August 14	1,236,989	1,320,753	+ 83,764
August 21	1,304,848	1,371,233	+ 66,385
August 31	1,952,163	2,008,128	+ 55,965

Canadian Northern Railway.

August 7	\$ 868,000	\$ 775,500	— \$ 92,500
August 14	841,500	746,800	— 94,700
August 21	846,300	748,500	— 97,800
August 31	1,129,100	1,134,400	— 5,300

The total income derived from Chinese railways during 1916 amounted to \$30,997,471, an increase of \$2,415,800, compared with 1915. The total expenditure incurred was \$14,839,614, or \$265,140 less than the previous year.

The French Government is understood to be on the point of closing contracts for forty more steel cargo boats, each of 4,500 tons capacity, with American builders on the Atlantic coast. Each of the ships will require about 1,500 tons of steel.

The National Congress of Peru, at its last session, passed a highway law, having for its purpose, the encouragement of road construction throughout the country. The new law distributes the cost of new construction between the local and the national governments, and provides both for new revenues for this purpose, and for the payment of a road tax, either in money or labor.

WATER POWER OF WESTERN CANADA

The London Financial Times, in speaking of the enormous undeveloped water power of Canada, says that there is not much doubt that, given the necessary capital for its development, this power alone should suffice to place the Dominion among the foremost of the world's producers of manufactures. Western Canada is not the least section which nature has so beneficently endowed with this splendid advantage, and it is calculated that 6½ millions of horse-power run to waste daily in the three western provinces. The following note, furnished by the Canadian Pacific Railway Company and based on the investigations of the water powers branch of the Canadian Department of the Interior, is therefore of very considerable interest:—

Investigations conducted by the water power branch of the Canadian Department of the Interior have revealed that in the great Saskatchewan River and its tributaries, which drain the whole of the southern portion of the provinces of Alberta and Saskatchewan, and in the Winnipeg River and other streams flowing into Lake Winnipeg, there is enough hydro-electric energy to create at least 1,172,000 horse-power. In the Athabasca, Peace, Churchill and other enormous streams which drain the northerly portion of the three provinces, flowing, some into the Arctic Ocean and some into the Hudson's Bay, there is enough to create—according to the very incomplete data that has been obtained—5,465,000 horse-power.

Only 12 plants have actually been established yet to avail mankind of this extraordinary volume of power. Only 109,000 horse-power is as yet being used, of which 107,000 is handled through four plants. These latter consist of two on the Winnipeg River, belonging to the Winnipeg Electric Railway and the Winnipeg Municipal Railway respectively, and two on the Bow River at Kananaskis, 50 miles west of the city of Calgary, where 31,000 horse-power are developed and used mostly in lighting Calgary, running its street-cars and supplying motive power at cheap rates to its industries. There is energy enough in the Winnipeg River to produce, eventually, as great a volume of power as is now taken from Niagara Falls—even, possibly, to surpass it; there is enough in the Bow River basin, supplemented by storage capacity, to create 93,000 horse-power, all within easy transmission reach of Calgary.

LUMBERING AND SHIPBUILDING

The value of the lumber, lath and shingles cut in 1916 was slightly less than in 1915, and amounted to \$66,072,222; of this \$58,365,349 represents lumber, of which 3,490,550 thousand feet board measure were cut as compared with 3,842,676 in 1915, says the monthly commercial letter of the Canadian Bank of Commerce. In eastern Canada the prospects for the lumber industry have been improved by the partial removal of the British embargo placed on shipments on private account. Canadian shipments are now permitted without licenses from the British controller of timber supplies, when forwarded as deck cargoes. Purchases by the Imperial authorities have been insignificant in amount. Production has been limited by the enlistment of large numbers of men in forestry battalions for service in Great Britain and France. In spite of this decided handicap and the resulting decline in quantity, the value of the output for the current year will probably be about the same as for last year.

In British Columbia the mills continue to operate as fully as the labor supply will permit. There is some increase in the local demand arising out of the improvement in general conditions, but the prevailing activity is sustained chiefly by orders from other provinces and from abroad.

The steel and wooden craft in course of construction at the present time in British Columbia yards are valued at \$20,000,000. Among the vessels being built are two for the Dominion government, eight for the Imperial government, four for Norwegian shipping houses and seven wooden schooners for the lumber trade. This activity had its inception not more than a year ago and its development has had a very inspiring effect upon the business of the entire province. The traffic of the port of Vancouver during the 12 months ending March 31st last, was the heaviest on record, the vessels entered inwards and outwards numbering 21,301, and registering 11,735,984 tons, as compared with 9,942,197 tons in 1916, and 10,347,563 tons in 1915.