

NEW RECORDS IN MIXING AND PLACING CONCRETE.

Further records for the mixing and placing of concrete with half-yard mixers were made by the forces of the Division of Terminal Construction on the south wall of dry dock No. 1 at Balboa on April 19, as reported in the Canal Record.

The regular mixer battery on the south wall consists of 4 half-yard mixers, working in units of two. One of the mixers in one of the units was closed down and the two crews of the unit fed the other mixer. During the 8-hour day, the double-crew mixer mixed approximately 321.94 cubic yards of concrete, as calculated on this basis: The total place measurement of the output of the three mixers was 655 cubic yards, mixed in 1,005 batches. Each batch averaged, accordingly, .6517 cubic yards. Of the 1,005 batches, the double-crew mixer mixed 494, which, on the basis of the average for all batches, may be taken to mean 321.94 cubic yards.

The time charged to this mixer was as follows:

	Hours.	Cost.
1 foreman	4	\$ 2.71
1 subforeman	8	2.00
1 mixer runner	8	1.04
1 mixer helper	8	1.04
1 lever man	8	1.04
1 man cleaning runway	8	1.04
2 men carrying cement to hoppers	*8	2.08
2 men wheeling cement	*8	2.08
2 men in cement car	*8	2.08
18 men handling wheelbarrows	*8	18.72
1 helper on wheelbarrows	8	1.04
Total labor cost		\$34.87

*8 hours for each man.

During the 8-hour period 30 minutes were lost while the chutes for the mixed concrete were being washed, and 1 hour and 15 minutes were lost in waiting for forms. The actual working time was, accordingly, 6 hours and 15 minutes. The half-yard mixer, therefore, made a record of mixing 321.94 cubic yards of concrete in 6 hours and 15 minutes, at a cost of \$34.87, or \$.108 per cubic yard.

The yardage of gravel used is about the same as the yardage of concrete mixed. The 18 men trundling the wheelbarrows handled, therefore, in the 6 hours and 15 minutes about 321 cubic yards of gravel, an average of 17.8 yards per man. This is equivalent to 2.85 cubic yards, or about 76.9 cubic feet per hour. As the gravel as handled at the dry dock weighs about 115 pounds to the cubic foot, each man was handling about 8,840 pounds, or 4.44 tons, per hour of working time, which is an average of over 147 pounds per minute.

A novel power plant for supplying electric lighting has been put in operation in Australia. The water power is derived from an artesian well from which the water issues under great pressure. When shut down this pressure reaches 270 pounds; and the working pressure of the jet is 100 pounds. This pressure is utilized in two Leffel wheels, which drive two dynamos, each of 10 kilowatts capacity, which supply current to a d.c. system, comprising eighty 50-candle-power metal filament lamps, the number of consumers being twenty-five, and the voltage at consumers' terminals 200 volts.

COAST TO COAST

Mimico, Ont.—The council agreed to accept the terms of New Toronto for the supply of water from the latter's new system.

Penticton, B.C.—The Kettle Valley Railway, owned by the C.P.R., has been completed for a distance of nearly 400 miles between Midway and Spence's Bridge.

McLeod, Alta.—The C.N.R. has started construction work on the McLeod branch, a large outfit of the Northern Construction Co., under Superintendent Fraleck, arriving on May 24th.

Regina, Sask.—An experimental sewage plant designed by R. O. Wynne-Roberts is now in operation and efforts are being made to devise an economical method of treating the city's sewage.

Montreal, Que.—The board of control is considering a proposal to guarantee the Montreal Tramways Co. the amount required for the construction of some new lines in the outlying parts of the city. The expenditure is estimated at about a million dollars.

Calgary, Alta.—It is stated that the extensive railway construction carried on by the Mackenzie and Mann interests to the south, and the McArthur interests to the north of the province, is practically eliminating the unemployment problem, as thousands of men are now engaged on construction work.

St. Malo, Que.—A new line of railway is being built to provide a connection between the main line of the Transcontinental and the Leonard shops. It includes the construction of a half-through steel span 100 ft. in length, resting on concrete foundation. Messrs. Cavicchi and Pagano are the contractors and have a staff of about 125 men on the work.

Toronto, Ont.—Excavation commenced last week for the new station at North Toronto to be used jointly by the Canadian Pacific and Canadian Northern Railways. Messrs. Darling and Pearson are the architects. The building will cost about \$2,000,000, according to report. P. Lyall and Sons, of Montreal, are the general contractors.

Vancouver, B.C.—The Joint Sewerage Commission of Vancouver has obtained from the Provincial Government the control of Burnaby Lake levels, in connection with the deepening of Brunette River, which will give better drainage to the upper end of Burnaby Lake and Still Creek. It is planned to construct a dam at the lower end of the lake to keep it at constant level the year round.

Le Pas, Man.—It is reported that the Armstrong Lake bridge on the Hudson Bay Railway was partly destroyed recently by overloading. The structure is 900 ft. long and the foundations are supported by piling. The reconstruction of the damaged part has been commenced. It is stated that the contractors suffered a loss of \$54,000, including an engine, a pioneer track-layer and a number of cars of rails and ties.

Vancouver, B.C.—It is understood that the Vancouver Harbor Commission will acquire the control and use of the Kitsilano Indian Reserve. Plans for its improvement were prepared by A. D. Swan, harbor engineer, who was sent out by the Dominion Government several years ago. According to his scheme, the property will be entirely utilized and suitable provision made for the berthing of large and small ocean steamers. Provision has been made on the reserve for a large grain elevator.