

In order to secure authentic data on the disintegration of concrete between tide levels, the Aberthaw Construction Company is about to undertake an extended series of painstaking tests on full sized specimens.

Through the permission and co-operation of the Navy Department these tests will be conducted at the Navy Yard, Charlestown, Mass., upon concrete piers made of various mixtures of concrete and of different brands of cement. These will be placed in such positions that they can be photographed at the water's edge, and so located that the base will be entirely submerged and the shaft will extend above the water.

The Government is to detail an officer to record these tests, and Mr. H. L. Sherman, Cement Chemist, of Boston, is to make most careful analysis and records of all cement, aggregate, stone and sand entering into the work. As the results of these tests will be made public they will doubtless be anxiously awaited by all who are interested in concrete construction.

The Aberthaw Construction Company will be glad to receive suggestions regarding the arrangement, the mixes, and the material to be used in the various piers, etc. It is desired to make these tests as useful as possible to the engineering community at large, for it seems possible in the course of a few years to establish by these means some general principles regarding the effect of freezing and thawing and the general action of salt water.

Since exposure tests are primarily comparison tests, their chief result will be the comparison of the different materials, mixtures, consistencies, etc., which are separately represented. It is highly desirable to include in this single series of tests, where the same external conditions affect all the samples, every promising method or procedure and every commonly used mixture or kind of concrete. On this ground it is to be hoped that a comprehensive range of suggestions will be forthcoming for the assistance of the Aberthaw Company.

RAILROAD ORDERS.

(Continued from Page 916.)

5607—November 4—Directing the C.P.R. to provide, construct and maintain a suitable highway crossing in the town of Mortlach, Sask.

5608—November 3—Granting leave to the City of Edmonton to construct, at rail level, the lines of its Electric Street Railway, and erect the necessary poles and wires for the transmission of power, across the lines of the Calgary and Edmonton Railway, at the intersection of said railway with White Avenue, in the City of Strathcona, and at the intersection of the proposed line of the Calgary and Edmonton Railway Company with Jasper Street, near Tenth Street, Edmonton.

5609—October 20—Directing the Michigan Central R. R. to provide a suitable farm crossing where the railway intersects the farm of Robert MacVicar, Township of Brook County of Lambton, Ont.

5610—September 14—Ordering the C.P.R. Ry. to treat with C. R. Muttelberry, Winnipeg, with respect to certain lands owned by the applicant in the City of Winnipeg, through which the G.T.P. Ry. is intended to pass, as to the purchase of the said property.

5611—October 20—Dismissing the complaint of Wellington Wible, Kingsville, against the refusal of the Pere Marquette R.R. Company to carry passengers on its way, freight, or local trains.

5612—November 4—Allowing the G.T.R. to leave out the filling and packing mentioned in Section 230 of the Railway Act, 1903, from the month of December to the month of April in each year, both months included.

5613—October 20—Dismissing complaint of Wellington Wible, Kingsville, Ont., that the W.E. & L.S.R. Ry. is charging excessive rates for passenger traffic, in violation of the provisions of the Railway Act.

5614—October 22—Authorizing the C.P.R. to cross road allowances on its Stoughton Weyburn branch, in the Province of Saskatchewan, between mileage 0 and 36.

5615—September 14—Authorizing the Grand Trunk Pacific Railway Company to construct its railway over level crossings in the municipality of Miniota, Man.

5616—October 6—Authorizing the G.T.P. Ry. to cross road allowances on its main line, grade diversion, on the Medicine Hat section, between Kincorth and Walsh, Alta., between mileage 102.11 and 110.56.

5617—October 28—Directing the Ottawa Electric Railway Company do not allow passengers to stand on the front platforms of cars.

That motormen be forbidden to engage in conversation with passengers or others, while cars are in motion.

That a printed notice to this effect be posted in a conspicuous place inside every car.

That the distance between cars on the Britannia line be not less than 1,000 feet while descending grades.

That cars carrying passengers shall always have both a motorman and conductor upon them while in operation.

The steel rail production of the United States for the current year will be the smallest in years past, being estimated at 1,800,000 tons, against 3,633,654 in 1907.

MARKET CONDITIONS.

Montreal, December 23rd, 1908.

The metal markets are exceedingly slow in the United States, and a recovery is not looked for for weeks to come. Meantime, however, prices of pig-iron are well maintained in a general way, although it is probable that in a number of instances lower prices were accepted. The prospects are that business will pick up and prices improve very shortly. As a matter of fact, selling interests in the United States to-day, will not book for many months ahead at current prices, but are asking advances for future deliveries. The general situation seems to be that present prices would be accepted for first quarter, while for second quarter an advance of 50 cents would be asked, and for second half delivery, an advance of \$1 over present figures would be demanded. There is but little going on at the moment, however.

Mail advices from England are not very encouraging, some of them quoting the market at a decline. Some pessimistic letters arrived at the same time as cables which quoted an advance in the price of warrants of a shilling per ton. It is not thought that there will be much change, now, until after the first of the year. This year, owing to the dullness of trade, it is thought that the holidays will be prolonged later than usual.

The local market is very dull. The active trade reported has entirely disappeared and has been replaced by lethargy. Merchants, however, have been expecting this and do not regard it as of much significance. Under the circumstances, no changes in price are noted, everything on the list remaining practically the same as a week ago, as follows:—

Antimony.—The market is steady at 9 to 9½.

Bar Iron and Steel.—Prices are steady all round, and trade is quiet. Bar iron, \$1.22 per 100 pounds; best refined horseshoe, \$2.15; forged

WANTED

Associate to manage Branch Office of leading Hydro-Electric Engineer. Only young Civil Engineers with Hydraulic experience and business tact, who can invest small capital need apply. Address

Box 6, CANADIAN ENGINEER

A. W. FABER'S "CASTELL" PENCILS

The Finest in Existence

16 Degrees 6 B to 8 H.
Unequaled for PURITY, SMOOTHNESS, DURABILITY
or GRADING.

A. W. FABER'S
"CASTELL"
Copying Pencil

A. W. FABER
149 Queen Victoria Street
LONDON, E.C.

Manufactory Established 1761