

G. P. R. EARNINGS.

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general interest is evidenced in the proposed joint regulation of international traffic between United States and Canada. A conference on this matter was held last week in New York between Chairman Martin A. Knapp, of the Interstate Commerce Commission, and Chairman Mabey, of the Railway Commission of Canada. They have under consideration these aspects of the general question of international rate regulation:—

"Whether existing legislation in the two countries is adequate for the effective control of through traffic, and whether joint control of such traffic would be mutually advantageous to the business interests of both countries.

"Whether it would be necessary to the end in view to negotiate a treaty between the two countries, or whether the result could be accomplished by concurrent legislation.

"Whether under a treaty or such concurrent legislation joint control could be enforced through the separate administrative or judicial authorities in each country respectively, or preferably by the creation of a new joint tribunal in the nature of an international traffic commission.

"Whether such joint control should include not only through railway rates and regulations, but also express companies, telegraph companies, and telephone companies operating between the two countries."

Will international regulation have any effect on the railroad earnings?

PLANT ARRANGEMENT ON A LARGE REINFORCED CONCRETE JOB.

In concrete work, almost more than in any other type of construction, the difference between a good-sized profit and a very small profit or an actual loss on a contract often depends upon the economy or waste in the handling of materials. This is because of the relatively high proportion of labor cost in this type of construction

**Shaping Reinforcement.**

as against other types. As a consequence, the construction plant layout on such a big piece of work as the new warehouse of the Massachusetts Cotton Mills at Lowell, Mass., for which the Aberthaw Construction Co., of Boston, Mass., are the general contractors, is especially interesting.

This building will be 100 feet by 256 feet and twelve stories high, containing over 300,000 square feet of floor area.

It will rest on 1,400 concrete piles, one row under each line of columns and two rows under each fire wall.

The contract for the piling was placed by the Aberthaw Company with the Raymond Concrete Pile Co., of New York. Their method is to drive or jetty a sheet steel shell on a collapsible steel core into place, withdraw the core and fill the shell with concrete.

In this particular job the pile core encased in a sheet steel shell is driven to a firm resistance after using

**Reinforcement in Place.**

a water jet to loosen up the soil, which is quite firm. When the pile begins to bring up at first, a jet is used again and the pile is driven to its final resistance. The sheet steel shells which encase the core are made of No. 20 gauge sheet steel in 8-foot sections, which overlap and fit the core very snugly. A pressed steel boot is placed over the point of the shell to exclude the soil as the pile is being driven. When the desired penetration is reached the core is collapsed and withdrawn, leaving the shell in the ground. The shell is inspected to ascertain its condition, and is then filled with Portland cement concrete of a mixture of one part good Portland cement, two parts sharp sand and four parts crushed stone. The piles are designed to carry a load of 33 tons each, and vary in length with the depth to ledge, and are from 10 to 30 feet in length. The short piles have a point 13 inches in diameter, and on the longer piles the point is 8 inches in diameter, the head of the pile varying in diameter with the length, being approximately 18 inches.

It is a particularly difficult job, because of the character of the material, which is sandy clay and gravel overlying rock. In the photograph, showing a close view of a pile-driver, the water jet used for loosening the soil has reached the lowest point and is about to be withdrawn, while a steel shell and core is hoisted on the derrick ready for placing and driving. Sections of shells can be seen lying on the ground near the pile-driver. The piles are capped with a continuous girder extending the full width of the building. These girders are 5 feet wide by 5 feet 4 inches deep of 1:2:4 concrete, containing sixteen 1 1/8-inch steel bars and 5/8-inch stirrups for reinforcement.

(Continued next week.)