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Hyman Tannery Building, London, Ont.

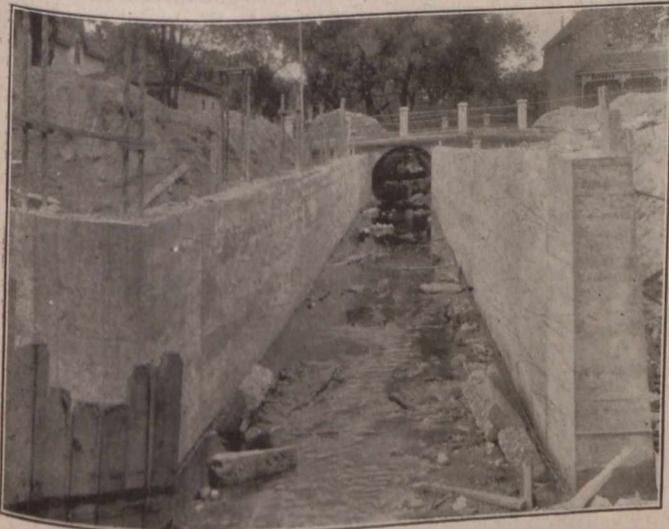
Reinforced Concrete Beam and Slab Construction Found More Economical Than Flat Slab Construction — Difficult Foundation Conditions Met — Cold Weather Concreting Without Tarpaulins — Summary of Essentials for Successful Concreting in Winter

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UNUSUAL methods and results may be claimed for certain features of the design and construction of the Hyman Tannery buildings recently completed at London, Ont. These buildings, which are to be used for light manufacturing purposes, by C. S. Hyman & Co., of London, consist of one large building 75 by 180 ft., five stories high, with foundations and columns designed for two additional stories, and a small building, approximately two stories high, not designed for additional stories.

General Characteristics

The general construction of both buildings consists of reinforced concrete skeleton, with brick curtain walls and steel sash. These beams and columns are exposed on the side and rear elevations, thereby saving a considerable amount of brick wall. The exterior beams are made sufficiently deep to act as lintels,—the steel sash framing di-



PHOTOGRAPH TAKEN SEPTEMBER 4TH, 1919 SHOWING CREEK THROUGH CENTRE OF BUILDING WHICH CAUSED UNUSUAL FOUNDATION DIFFICULTIES

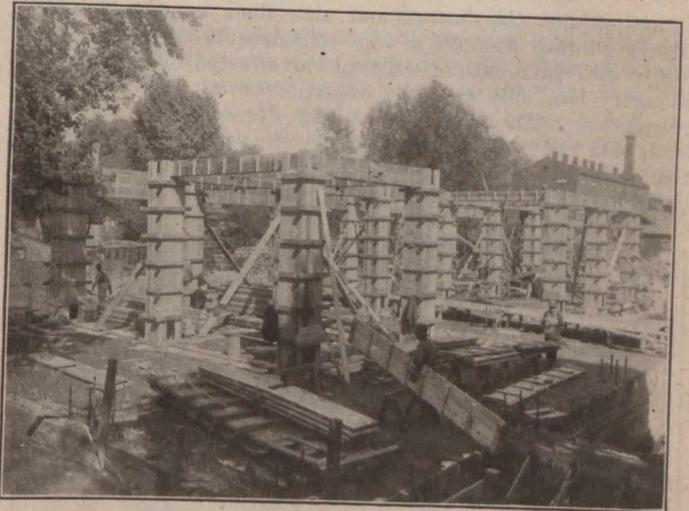
rectly into the bottom of the beams. The window sills are of concrete, while the jambs are brick. Standard solid steel sash with plain glass was used, also standard horizontally-pivoted ventilators, with chain operators.

On the ground floor it was necessary to make provision for drainage, and this was accomplished by sloping the reinforced concrete floor construction to the required pitch to carry the water down the pipes located at convenient places in the floor.

The floors are finished with a 1-in. coating of 1:1 concrete, which has given an excellent result, surfaced with "Agatax" floor finish.

Foundations

One of the interesting features of the construction of these buildings from an engineering standpoint has been the foundations which were constructed on very soft, wet sand



FORMS IN PLACE FOR FIRST FLOOR COLUMNS, OCTOBER 1ST, 1919

and quicksand. The footings, accordingly, were carefully designed to spread the load in such a way as to produce as nearly as possible uniform pressure, and, therefore, provide for uniform settlement of the building.

Making the foundation more difficult, a creek ran through the centre of the small building. The contractors experienced considerable difficulty in this section of the work, but succeeded in getting the concrete into place for the footings by damming up the creek with bags of cement to prevent the flow of water from entering the excavation until the concrete could be poured.

A very rich mix of cement was used, in order to provide against certain unavoidable loss of cement, due to "flooding." However, the building has been completed for several months, and there is no evidence of settlement of any kind. No settlement cracks have appeared anywhere in the structure. Considerable care had to be taken to construct all footings to such a depth that the lateral movement of the wet sand between footings of different elevations did not take place. It was noteworthy that these footings matured