

The forms for the stairways were made of a flat wooden panel for the under side of the slab and inverted wooden risers for the treads. The front of the building was marked into blocks by using beveled strips  $\frac{1}{2}$ -in. thick by  $1\frac{1}{2}$ -in. wide, these strips being nailed to the forms, dividing the blocks into rectangles  $14 \times 21$ -in. When the forms for the front of the building were stripped, the walls were cleaned and brushed with a thick coating of neat cement applied with a stiff wire brush. Cement used on the building totalled about 5,000 barrels. There are 37 columns, forming 18-ft. bays on each floor, the columns in the basement being 22-in. in diameter and on the other floors 20-in. The heights of the stories vary, that of the basement being 10-ft. floor to ceiling, first floor 16-ft., second and third 14-ft. high. This lack of uniformity, however, lengthened the time of construction, which was ninety days.

The various floors are shut off at the stairways by iron doors, closed by a system of weights and pulleys, utilizing pockets in the walls on side of the stairways. The concrete floors have been thoroughly tested. They showed a test of 500 pounds per square foot, which gave a deflection of  $\frac{1}{4}$ -in. only in the centre of an 18-in. panel. All work was done by day labor under the direct supervision of Architect W. J. Saunders, who was also the supervising engineer; A. J. Roberts was superintending foreman in charge of labor. The contract price is calculated at \$50,000, and the methods of construction adopted have proven entirely satisfactory in all respects.

#### RECENT PATENTS.

The following are patents concerning cement machinery, products and appliances recently issued in the United States:—

**Method and Apparatus for Making Culverts of Concrete.** Henry Noah Baxter, Iowa.

**Method of Manufacturing Concrete Reinforcing Frames and the Product Thereof.** Paul E. Bertin and Rene L. Bertin, New York, N.Y., assignors to Reinforcement Supply Company, New York, N.Y.

**Cement Cistern Mold.** Newman Bronhard, Toledo, Ohio.

**Burial Vault.** John D. Fowler, Junction City, Ohio, assignor of one-half to John H. Kuhlman, Springfield, Ohio.

**Mold.** John R. Haldeman, Springfield, Mo.

**Permanent Concrete Form.** Michael D. Murray, West Homestead, Pa., assignor of one-half to Patrick O. Gara, Pittsburg, Pa.

**Reinforced Concrete Post.** Jacob H. Carpenter, Reading, Pa., assignor of one-third to James R. Yost, Wyomissing, Pa., and one-third to Rufus R. Yost, Sinking Spring, Pa.

**Apparatus for Making Concrete, Mortar, and the Like.** Lemon M. Reed, Cleveland, Ohio.

**Process of Making Concrete or Cementitious Compounds.** Lemon M. Reed, Cleveland, Ohio.

**Fireproof Structure.** Charles W. Denny, Philadelphia, Pa.

**Metal Lath.** Elmer A. Wilson, Niles, Ohio.

**Wall Tie.** Jacob H. Coffman, Philadelphia, Pa.

**Centering Mold.** James E. Moody, Essex, Ill.

**Expanded Metal Fabric.** Norris E. Clark, Plainville, Conn.

**Fence Post, Telegraph Pole, and the Like.** Herbert L. Stillman, Westerly, R.I.

**Cement Block-Making Machine.** Herman Besser and Jesse H. Besser, Alpena, Mich.

**Building Construction.** John C. Pelton, San Francisco, Cal.

**Construction Member.** John C. Pelton, San Francisco, Cal.

**Apparatus for Constructing Concrete Pipes.** Frank Teichman, San Francisco, Cal.

**Concrete Mixer.** James W. Stuart, Freeport, Ill.

**Fitting for Concrete Casings.** Frederick A. Koetitz, San Francisco, Cal.

#### CONCRETE BLOCK COTTAGE.

The cottage building shown was built by T. Lewis & Son, contractors, Hamilton, Ont., at that city. It is 36 feet by 24 feet 8 inches, and is built entirely of con-



A Hamilton, Ont., Block Cottage

crete blocks, with verandah columns of concrete 10 inches in diameter. It contains six rooms, and is of a particularly pleasing appearance and design.

#### THE INDEPENDENT PORTLAND CEMENT CO.

The application for charter by the Independent Portland Cement Company is at the present time being made. The capitalization will be \$10,000,000, and will take in the remaining ten plants in Ontario. These are all marl plants, and include the following:—The Brant Portland Cement Company, Brantford, \$500,000; Colonial Portland Cement Company, Wiarton, \$800,000; Hanover Portland Cement Company, Hanover, Ont., \$500,000; Imperial Portland Cement Company, Owen Sound, \$300,000; Sun Portland Cement Company, Owen Sound, \$500,000; Grey and Bruce, (St. Mary's Company), Portland Cement Company, Owen Sound, \$500,000; Western Ontario Portland Cement Company, Atwood, \$500,000; Superior Portland Cement Company, Orangeville, \$500,000; Bell's Lake Portland Cement Company, Markdale, \$500,000; Ontario Portland Cement Company, Paris, \$450,000. Mr. J. R. Roaf, Toronto, is solicitor for the new company. The head office will be at Toronto. As soon as the charter has been obtained officers will be elected and operations commenced. Future developments will be watched with great interest by all, as the future of the cement industry in Canada will be entirely in the hands of those two consolidated companies.