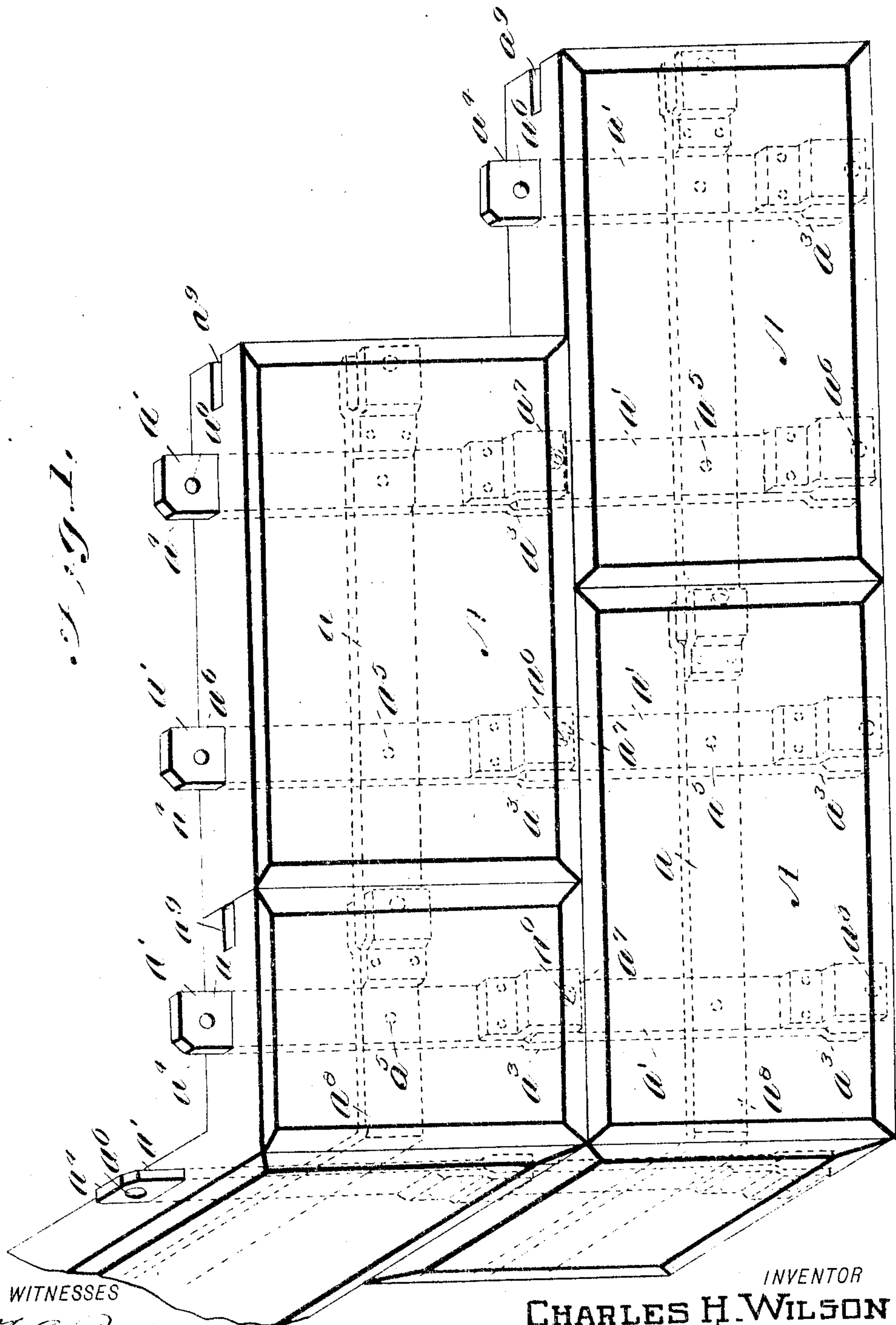


No. 882,482.

PATENTED MAR. 17, 1908.

C. H. WILSON.
CONSTRUCTION OF BUILDINGS.
APPLICATION FILED AUG. 17, 1907.

2 SHEETS—SHEET 1.



WITNESSES

T. E. Barry
C. E. Granger

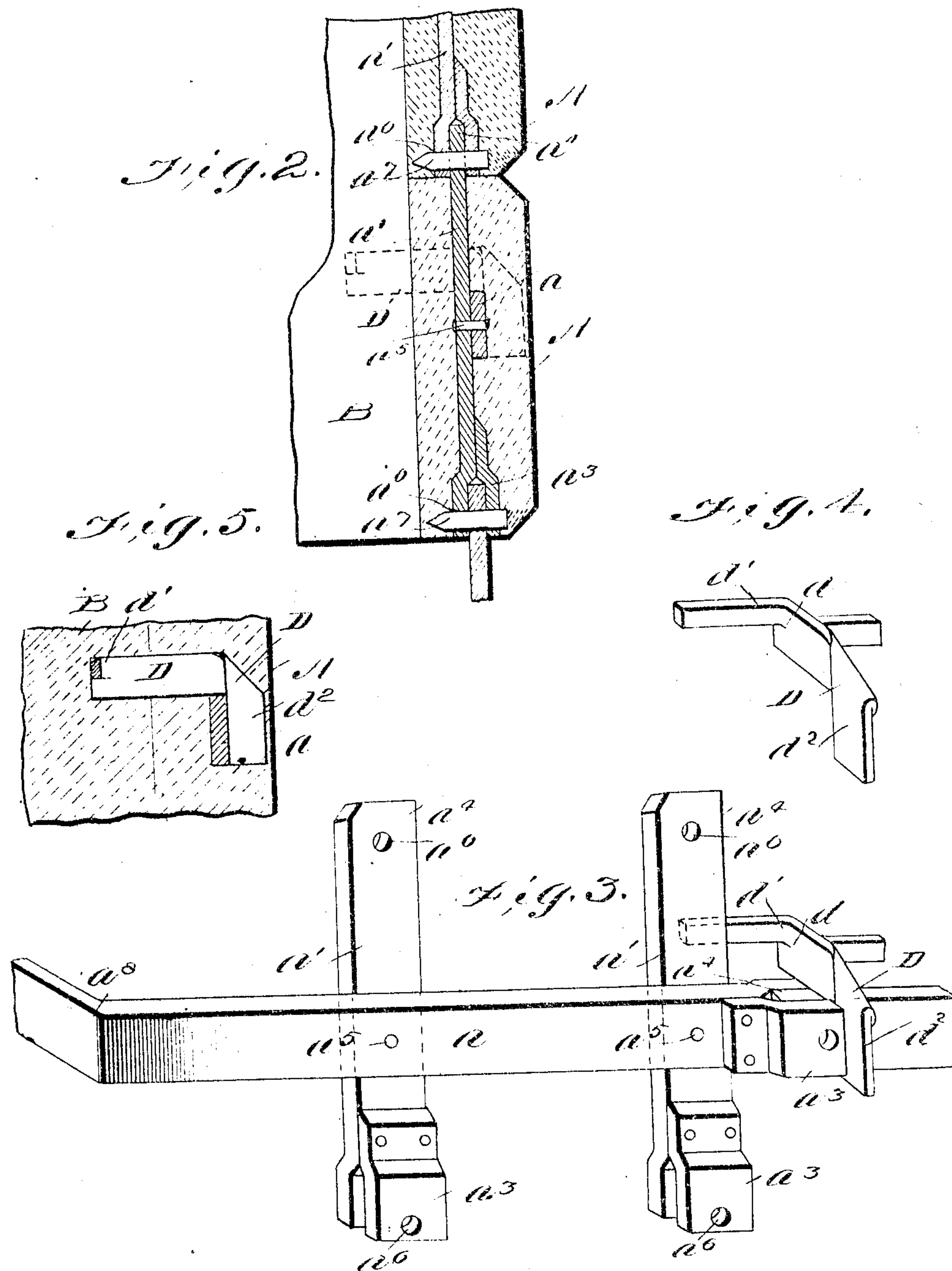
INVENTOR
CHARLES H. WILSON
BY *Mann & Co.*
ATTORNEYS

No. 882,482

PATENTED MAR. 17, 1908.

C. H. WILSON.
CONSTRUCTION OF BUILDINGS.
APPLICATION FILED AUG. 17, 1907.

2 SHEETS—SHEET 2.



WITNESSES

F. E. Barry
C. E. Trainor

INVENTOR
CHARLES H. WILSON
BY *Munn & Co.*
ATTORNEYS

UNITED STATES PATENT OFFICE.

CHARLES HARRISON WILSON, OF RED OAK, IOWA, ASSIGNOR OF ONE-HALF TO JOHN GILLIGAN, OF FALLS CITY, NEBRASKA.

CONSTRUCTION OF BUILDINGS.

No. 882,482.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed August 17, 1907. Serial No. 389,045.

To all whom it may concern:

Be it known that I, CHARLES HARRISON WILSON, a citizen of the United States, and resident of Red Oak, in the county of Montgomery and State of Iowa, have invented an Improvement in Construction of Buildings, of which the following is a specification.

My invention is an improvement in concrete structures, and consists in certain novel constructions and combinations of parts hereinafter described and claimed.

Referring to the drawing forming a part hereof, Figure 1 is a perspective view of the facing of the building constructed in accordance with my improvement. Fig. 2 is a vertical section through a part of the wall. Fig. 3 is a detail perspective view of a part of the reinforce. Fig. 4 is a detail of one of the ties; and Fig. 5 is a vertical section through a portion of the wall on the line of the tie.

My improved structure consists of a filling of plastic material and a facing of molded plastic blocks, each of the blocks containing a reinforce comprising horizontal and vertical bars, and each of said bars is provided at one end with a pair of ears and at the other with a lug adapted to be received between the ears of a bar in the adjacent block, the lugs and the ears being connected together in such manner as to form a plurality of continuous vertical reinforces and a plurality of horizontal reinforces in the facing, the facing being suitably tied to the filling.

Each of the blocks A is of suitable shape and size, and is provided with a horizontal reinforcing bar a , and a plurality of vertical reinforcing bars a' , each of said reinforces consisting of a bar rectangular in cross section and provided at one end with a pair of ears a^3 and the other end a^4 projects beyond the block, the horizontal and the vertical bars being connected together by rivets a^5 .

The reinforcing bars are placed in the block when it is molded, and are so arranged that the ends of the ears a^3 are flush with the face of the block, while the end a^4 projects therebeyond. Both the ears and the projecting ends are provided with openings a^6 therethrough, the opening in the projecting ends being so arranged as to aline with the openings in the ears, when the ends are inserted therebetween, and pins a^7 are adapted to be inserted through the alined openings to bind the adjacent blocks together.

It will be noticed from an inspection of Fig. 1, that the blocks are arranged to break joints, and that the vertical bar a' of one block is connected with the vertical bar at the opposite end of the next lower and the next upper block.

At the corners of the structure, the horizontal reinforcing bars are bent as at a^8 , the bend corresponding to the shape of the structure. That is, in circular structures the bend would be a curve, while in rectangular structures, the bend would be a right angle.

In constructing the structure, the blocks are laid in courses, and to place the last block in each course, it is necessary to provide a vertical groove a^9 in the end of the said last block for receiving the lug a^4 of the adjacent block, and to provide another groove a^9 in the block to whose horizontal reinforce the horizontal reinforce of the last block will be connected. The grooves a^9 are in vertical alinement with the opening between the ears of the horizontal reinforce so that the last block may slip downward on to the blocks of the preceding course.

The last block referred to above, is intended to mean the last block which is put in place, regardless of the position of such block in the course.

In molding the blocks, the reinforces are properly placed in the mold, with suitable pins inserted through the openings of the ears, after which the plastic material is tamped in the mold. After the plastic material is set, the pins are driven out and the block is ready for use.

The facing is tied to the filling B by a tie D, of the shape shown in Fig. 4, the said tie comprising a plate having one of its ends split longitudinally as at d , the material on each side of the split being turned in opposite directions to form a cross bar d' , and the opposite end d^2 of the plate is bent at a right angle to the plate to overlap the horizontal reinforce a . The ties are placed with the angular portion d^2 abutting against an ear a^3 , and the said ties may be placed one at every joint, or in any desired arrangement. It will be noticed that the ties are placed with their widest dimension perpendicular to the reinforce, and they are arranged between the abutting ends of the blocks.

I claim:

1. A structure comprising a filling of plas-

110

tic material, and a facing of molded plastic blocks, each of said blocks containing a reinforce comprising connected horizontal and vertical bars, each of said bars having at one end a pair of ears, and at the other projecting beyond the block and adapted to be received between the ears of a bar in an adjacent block, said bars being arranged with the ears flush with the face of the block, the block being recessed between the ears, said ears and the projecting ends being provided with alined openings, a pin traversing the openings for securing the parts together, whereby to form a plurality of continuous vertical reinforces and a plurality of horizontal reinforces, said horizontal reinforces being bent at the corners of the structure, sundry of said blocks in each course being provided with vertical grooves in their ends for the purpose set forth, and a plurality of ties for connecting the facing with the filling, said ties comprising each a plate having one of its ends split, the portions of the plate on each side of the split being bent in opposite directions, the other end of the tie being bent at a right angle to the remainder thereof and overlapping the horizontal reinforce.

2. A structure comprising a filling of plastic material, and a facing of molded plastic blocks, each of said blocks containing a reinforce comprising connected horizontal and vertical bars, each of said bars having at one end a pair of ears, and at the other project-

ing beyond the block and adapted to be received between the ears of a bar in an adjacent block, said bars being arranged with the ears flush with the face of the block, the block being recessed between the ears, said ears and the projecting ends being provided with alined openings, a pin traversing the openings for securing the parts together, whereby to form a plurality of continuous vertical reinforces and a plurality of horizontal reinforces, said horizontal reinforces being bent at the corners of the structure, sundry of said blocks in each course being provided with vertical grooves in their ends for the purpose set forth, and a plurality of ties for connecting the facing with the filling.

3. A structure comprising a filling of plastic material, and a facing of molded plastic blocks, each of said blocks containing a reinforce comprising connected horizontal and vertical bars, each of said bars having at one end a pair of ears and at the other projecting beyond the block and adapted to be received between the ears of the bar of an adjacent block, the block being recessed between the ears, said ears and projecting ends being provided with alined openings, pins traversing the openings for securing the parts together, and means for tying the facing to the filling.

CHARLES HARRISON WILSON

Witnesses:

SOLON C. KEMON,
C. E. TRAINOR.