

T. FELLOWS.
CONCRETE CONSTRUCTION.
APPLICATION FILED JAN. 3, 1911.

1,013,480.

Patented Jan. 2, 1912.

3 SHEETS—SHEET 1.

Fig. 1

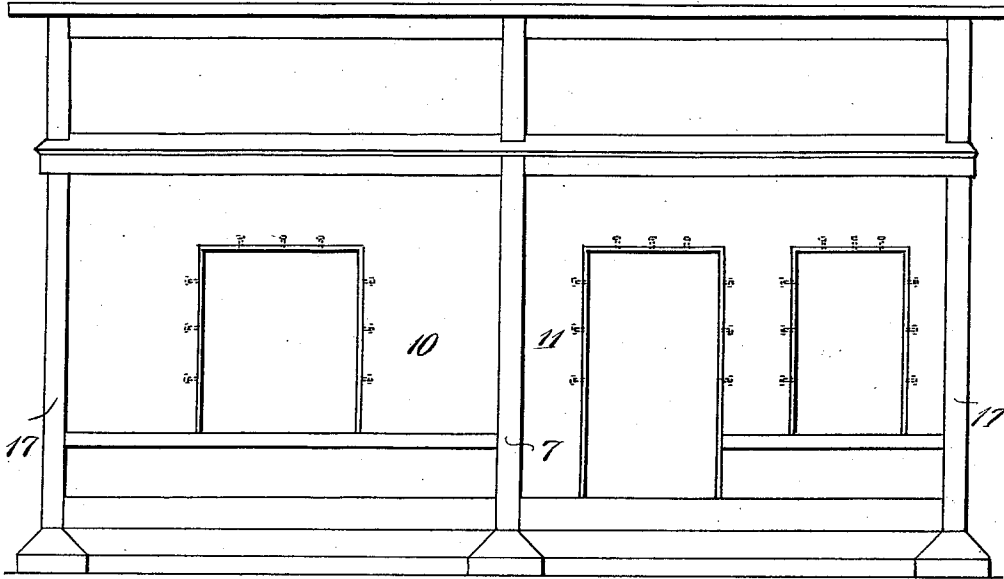
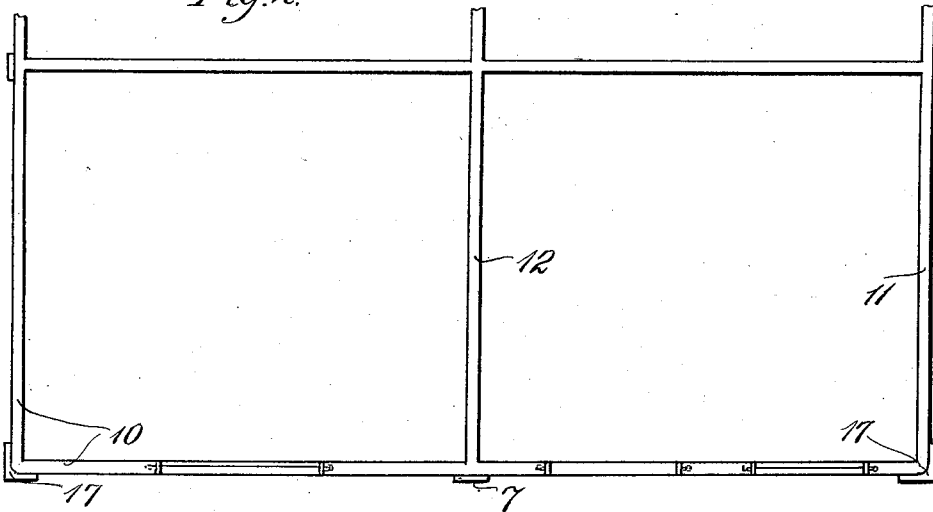


Fig. 2



Witnesses

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Fig. 3

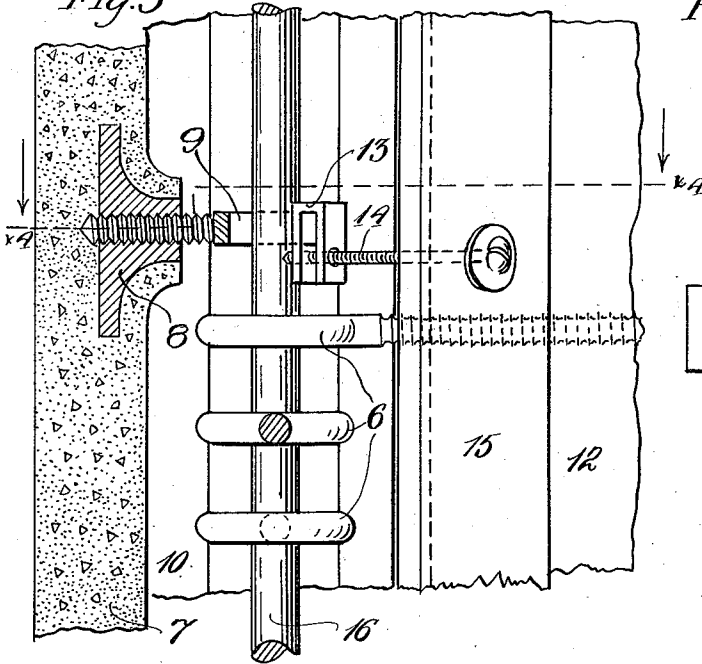


Fig. 5

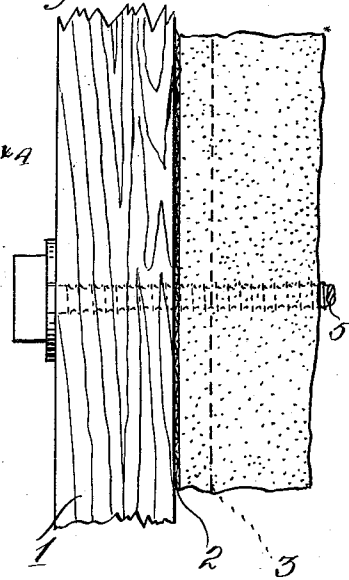


Fig. 4

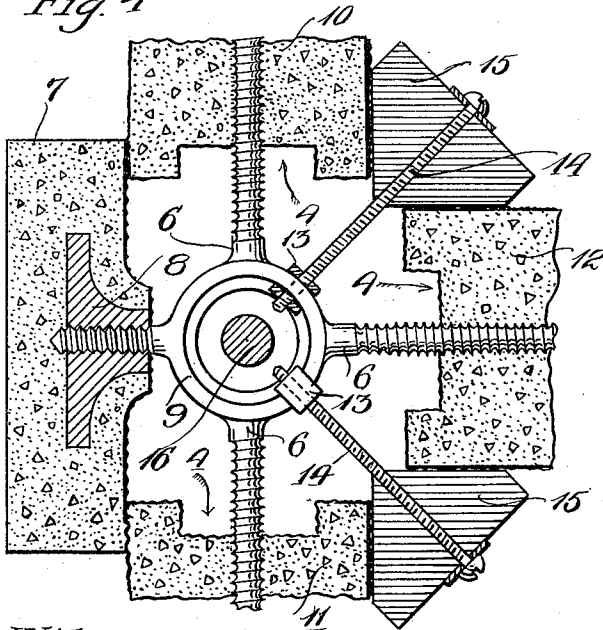
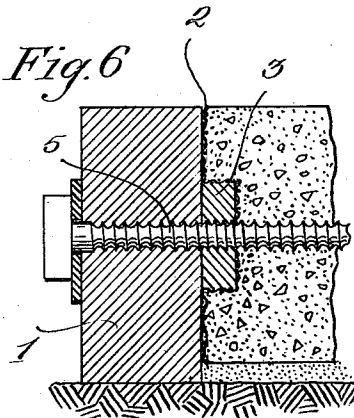


Fig. 6



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3 SHEETS—SHEET 3.

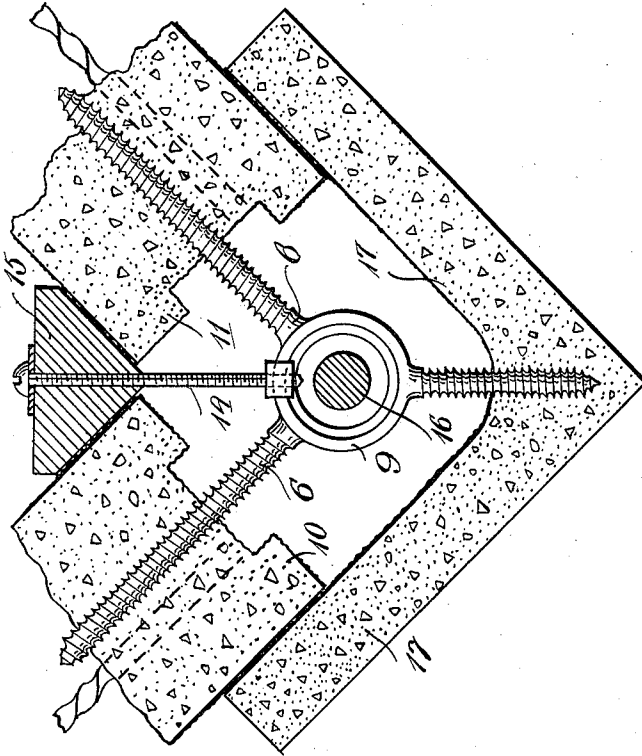


Fig. 7

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UNITED STATES PATENT OFFICE.

THOMAS FELLOWS, OF LOS ANGELES, CALIFORNIA.

CONCRETE CONSTRUCTION.

1,013,480.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed January 3, 1911. Serial No. 600,645.

To all whom it may concern:

Be it known that I, THOMAS FELLOWS, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, have invented a certain new and useful Concrete Construction, of which the following is a specification.

My invention relates to building constructions, and has particular reference to a means of fastening together preformed units used for concrete construction work of any kind, in such manner that a solid monolithic structure is formed.

The objects of this invention will appear more fully from the accompanying drawings in which—

Figure 1, is a front elevation of a house constructed of preformed units; Fig. 2, is a plan view showing the assembled units and illustrating the monolithic structure when completed; Fig. 3, is a fragmentary side elevation partly in section, showing the method of fastening together three wall units and a pilaster preparatory to making a monolithic structure of the whole. Fig. 4, is a sectional plan view taken on line x^1-x^1 Fig. 3. Fig. 5, is fragmentary side elevation illustrating the method of preparing building units, and providing the same with proper interlocking means. Fig. 6, is a vertical section showing the form and the threaded shanks used to form threads in the unit, and Fig. 7, is a transverse section illustrating the method of fastening together adjoining corners formed by preformed units.

By reference to Figs. 5 and 6 of the drawing, the method of preforming the units of a building preparatory to erection, will be more clearly understood. An ordinary frame 1, of the desired length required for the thickness of a slab, to form the wall or partition is faced with wire screening 2, to give the concrete face when molded or poured in the frame, the roughness and unevenness which renders it especially adaptable for monolithic structures where grouting forms a part of the process of erection, which would have little or no purchase on a smooth surface. That portion of the frame which forms the edge of a building slab is provided with a rectangular rib 3, disposed approximately centrally on the side of the frame to which it is attached as seen in Fig.

6, and serves to form in the edge of the wall or partition formed by the frame a recess 4, which when filled in with grout or concrete acts substantially as a lock, for several units, as will appear more fully hereinafter. The said rib 3, is held in engagement with the frame of which it forms a part by a screw bolt 5, which is arranged to project for a considerable extent beyond the frame and to be embedded in the concrete mass when it is poured within the frame. Such screw bolts 5, are intended merely as a mold for the threads that are to remain in the units when dry, and erected in place. As seen in Figs. 3 and 6, the screw bolts are replaced by adjustable members, in the present instance, eyebolts 6, which engage the threads formed by the screw bolts, the adjustability of such eyebolts being highly important for obvious reasons, chiefly however, to effect an alinement of the eyes of a number of such bolts, which are parts of the different units formed and erected previous to building such units into a monolithic structure as will be presently described. Such eyebolts 6, extend approximately centrally of the recess 4, formed by the ribs 3, aforementioned, which, as is apparent, together with the frame, are removed from the units as soon as the concrete is dry.

In Fig. 4, the method of uniting several building units is shown. The pilaster 7, is provided with a reinforcing plate 8, which forms a support for an adjustable screw eye 9. The adjacent walls 10 and 11, and also the partition 12, after erection, are brought in suitable relation to each other, the eye bolt being adjusted, until the eyes of all of the bolts are in register. In order to bring and hold the units thus alined in rigid positions, a small clip 13, is arranged to straddle the screw eye 9, held by the pilaster 7, such clips having a threaded orifice for the reception of a screw shank 14, which extends through an angle retaining piece 15, arranged to closely fit in the corners formed by the adjacent walls 10 and 11, and the partition 12, the screw shanks 14, being used to bring the units in close contact, and also to hold same immovable and against vibration when the succeeding process of completion is carried on. In the position illustrated in Fig. 4, all of the eyes of the screws are in alinement and the units ready for uniting into a monolithic struc-

ture. A reinforcing rod 16 is then inserted through the screw eyes, but in such a manner that it is free of the eyes of the eye-bolts, a provision made to prevent or rather
5 avoid any shearing tendency on the central rod, which would result if the pressure and tension of the screw eyes were allowed to be directly on such rod. The whole structure
10 therefore, preparatory to completing the monolith, is that shown in Fig. 4. A concrete mixture of suitable consistency is deposited in the space formed by the alined units. Said central rod 16, by this method,
15 becomes embedded in the concrete mixture, and the screw eyes then find support directly in the concrete column thus formed. When the concrete has hardened the threaded shanks 14 and the retaining pieces 15 are removed, the clips 13, being left embedded,
20 and the walls, pilaster and partition presenting one unit, rigidly and permanently interlocked.

In Fig. 7, I have illustrated the method substantially along the same lines, for securing or rather making the corners of a
25 building monolithic with the adjoining end walls. With the exception of the corner 17, the structure, hereinbefore described, remains the same, and for that reason, the
30 same reference characters have been used.

What I claim, is:

A building construction consisting of preformed concrete pilasters, walls and partitions, each pilaster abutting against the
35 ends of two oppositely disposed walls, the ends of such walls being separated from each other, and the partitions extending approximately to the edges of the walls whereby to form between the pilasters,
40 walls and partition ends a space forming a mold, said walls and partitions having each in their respective ends vertical recesses metallic threaded shanks embedded in said
45 walls and partitions and centrally of the recesses thereof, said shanks having eyelets and being adjustable relatively to said walls and partitions whereby to effect an
50 alinement of all of said eyelets, and a rod extending through but free of all of said eyelets, such space between the pilasters, walls and partitions being filled in with
grout to form a single reinforcing column for holding together said pilasters, walls and partitions.

In testimony whereof I affix my signature in the presence of two witnesses.

THOMAS FELLOWS.

Witnesses:

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FRED E. VINCENT.