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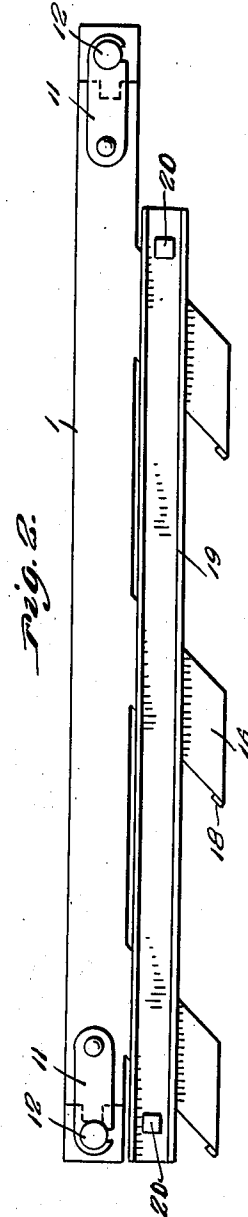
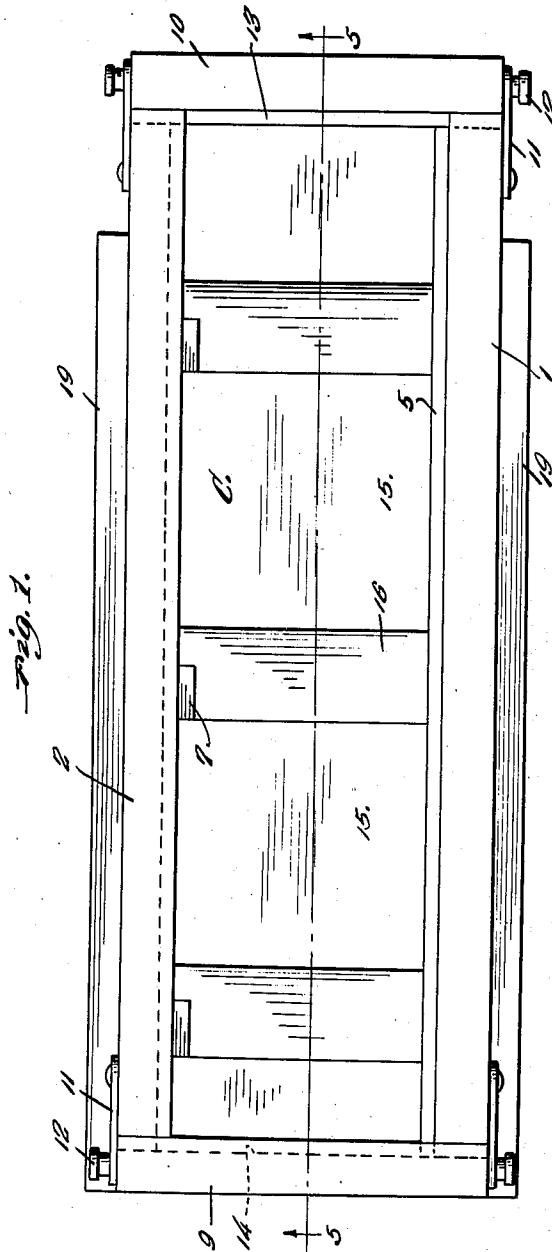
J. C. EARL

2,270,627

INTERLOCKING BUILDING SLAB

Filed April 2, 1940

3 Sheets-Sheet 1



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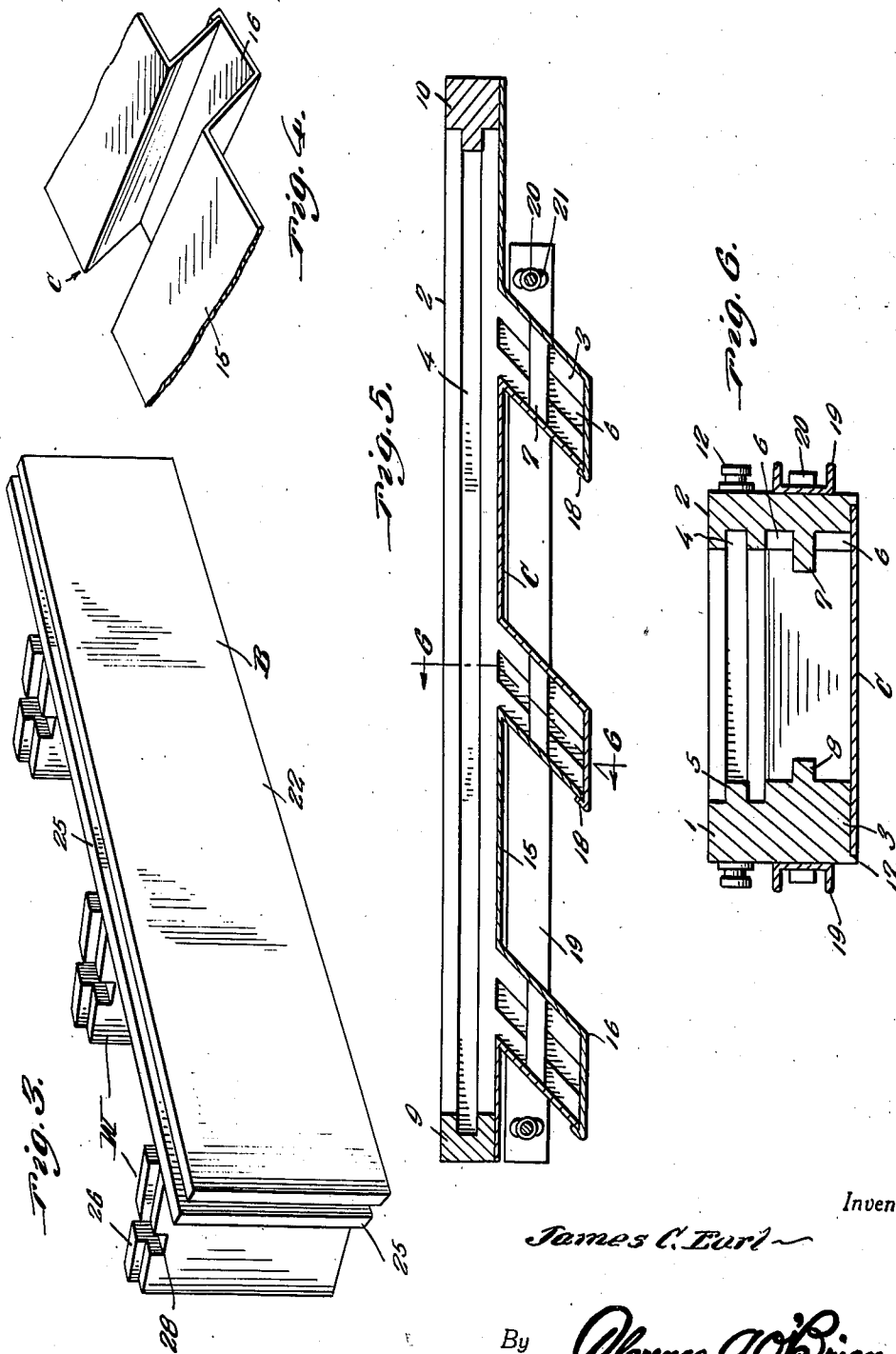
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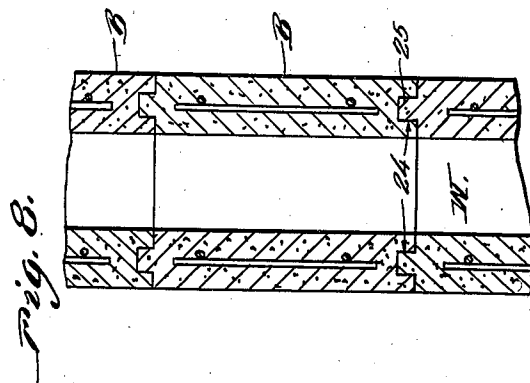
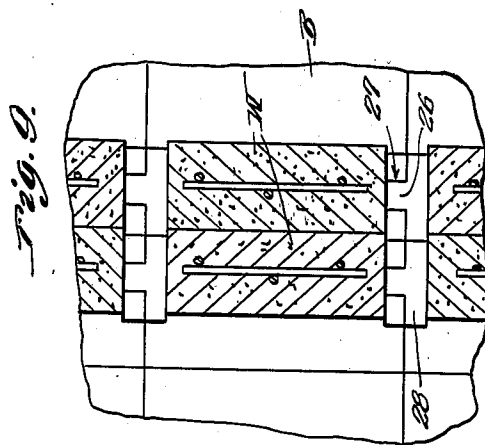
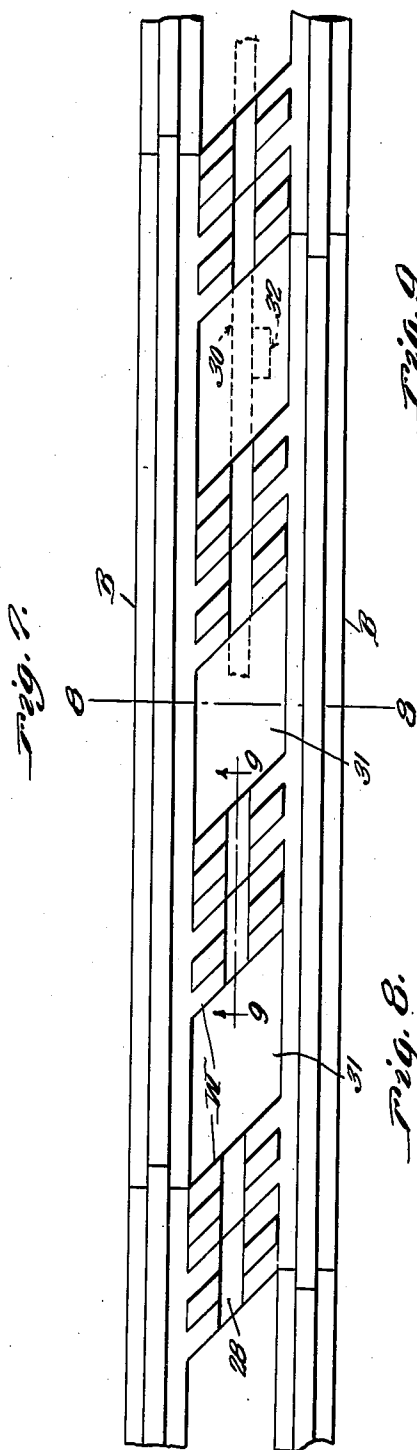
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INTERLOCKING BUILDING SLAB

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1 Claim. (Cl. 72—38)

This invention relates to interlocking building slabs and molds for making the same, the general object of the invention being to provide slabs having tongue and groove connections and wings extending at inclines from adjacent faces of the slabs with the wings of one slab interlocking with those of an opposite or opposed slab and with means whereby reinforcing bars can be supported by the wings.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a top plan view of a mold used to construct the interlocking slabs.

Figure 2 is a side view of the mold.

Figure 3 is a perspective view of one of the slabs or blocks made by the mold.

Figure 4 is a fragmentary perspective view of portions of the cover member of the mold.

Figure 5 is a section on the line 5—5 of Figure 1.

Figure 6 is a section on the line 6—6 of Figure 5.

Figure 7 is a plan view of a wall portion formed by the slabs.

Figure 8 is a section on the line 8—8 of Figure 7.

Figure 9 is a section on the line 9—9 of Figure 7.

The mold is formed of a pair of members 1 and 2 of elongated form and each member has a plurality of wings 3 extending from one edge thereof at approximately 45 degree angle, these wings being spaced apart and also spaced from the ends of the members. These members 1 and 2 constitute side members of the mold and the inner face of the member 2 is formed with a groove 4 while a rib 5 projects from the inner face of the member 1. Also, each wing of the member 2 is formed with a groove 6 which parallels the side edges of each wing and a bar-like part 7 extends across the transverse center of each wing 3 of the member 2 and divides a groove into two parts as shown in Figure 6. This bar 7 parallels the member 2. Each wing of the member 1 is formed with a rib 8 which

parallels the side edges of the wing and a cross rib 8'.

End pieces 9 and 10 close the ends of the mold and these end pieces are each held in position by the latch 11 pivoted to an end part of a side member and engaging a keeper stud 12 at each end of the end member. The end member 10 is formed with a longitudinally extending rib 13 on its inner face while a groove 14 is formed in the inner face of the end member 9. A sectional cover member C is adapted to form a bottom for the mold and said cover member has parts 15 extending under the straight part of the side pieces 1 and 2 and the cover member is also formed with the casing like parts 16 which fit over the wings and said parts 1 and 2 with the wings are formed with the small flanges 17 at their outer portions against which abut the side edges of the cover member as shown more particularly in Figure 6. Also as shown in Figures 4 and 5 the cover member has each main section formed with a lip 18 for receiving an end edge of the next section, the lip-carrying parts forming the end portions of the mold parts formed by the two sets of wings. A pair of channel bars 19 are placed against the outer sides of the two sets of wings and bolts 20 equipped with turn buckles 21 pass through the ends of the channel bars so that by tightening the turn buckles the channel iron bars will firmly clamp the mold parts together. After the parts have been connected together the mold is placed in the position shown in Figures 5 and 6 with its open side upmost so that the concrete can be poured into the same.

As will be seen this mold will form a slab or block B which is composed of an elongated rectangular-shaped part 22 having a groove 24 in one side edge and a groove 24 in one end edge and ribs 25 projecting from the other side edge and the other end edge. Each slab or block is also formed with the wings W, these wings, of course, being formed by the parts 3 of the mold and each wing extends at a 45 degree angle from the part 22 and each wing has a rib 26 at one end and a groove 27 at its other end with a notch 28 extending across each end of each wing, these notches being in alignment for the three wings and paralleling the slab part 22.

When the slabs are used for building a wall, such as shown in Figures 7, 8 and 9, the slabs are placed opposite each other so that the wings W of one slab will engage the wings of the other slab in overlapping relationship and due to their inclination the wings will form interlocking joints

between the inner and outer walls of the structure. Of course, the ribs of one slab or block will engage the grooves of the adjacent block and cement can be placed in the grooves before the ribs are placed therein to form tight joints between the parts. Also the notches 28 will form grooves in the wings which parallel the inner and outer walls of the structure and if desired reinforcing bars 30, see dotted line in Figure 7, may be passed through said grooves or notches. Also, cement or concrete can be placed in the openings 31 formed between the inner and outer walls and between the interlocking wings and when this is done vertical reinforcing bars such as shown at 32 in Figure 7 can be placed in the concrete filling the spaces 31.

It will, of course, be understood that some of these spaces 31 can be filled with concrete and others left open, just as the contractor or builder desires.

It will be seen that the wings W will form vertical columns from the foundation up to the top of the wall so that a structure built of these slabs or blocks has great strength and the parts are interlocked together both by the ribs and grooves and also by the interlocking wings or lugs W. The outer faces of the slabs or blocks can be finished in any desired manner and the faces of the blocks or slabs of the inner walls may be roughened to receive a finishing coat.

It will also be seen that the slabs can be easily laid or arranged in the walls and they can be made to break joints and corner slabs or blocks can be provided which are made on the same principle as the blocks or slabs shown.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claim.

Having described the invention, what is claimed as new is:

A slab for use in a wall structure comprising a body of rectangular shape, said body having a longitudinally extending groove in its lower side edge and a vertically extending groove in one end edge, a rib extending longitudinally on the upper side edge of the slab and a vertically arranged rib on the other end edge, the ribs of said slab being adapted to fit in grooves of adjacent slabs in a wall structure, vertically arranged wings formed on one face of the body and spaced apart and also spaced from the ends of the slab and each wing extending at an obtuse angle from the slab, each wing having a rib on its upper side edge and a groove in its lower side edge, said rib being adapted to fit in the groove of a wing of another slab, said rib and groove extending parallel to the side faces of said wing, and transversely extending notches in the upper and lower side edges of each wing and substantially in the vertical center thereof, said notches paralleling the body of the slab, the free end edges of the wings being beveled to arrange said free end edges parallel with the body, the notches in each wing extending through and beyond the rib and groove of the wing whereby said notches will form openings when a number of the slabs are arranged in a wall structure.

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