Jan. 13, 1953 I. F. REED 2,624,929

WALL BLOCK MOLD

Filed May 5, 1949 3 Sheets-Sheet 1

Fig. 1.

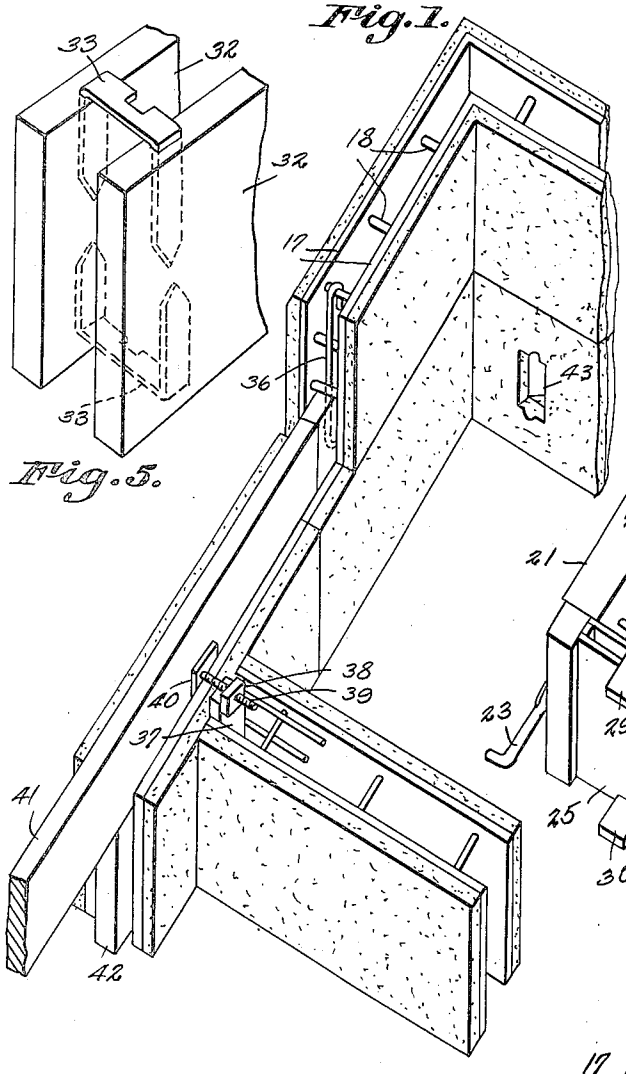


Fig. 5.

Fig. 6.

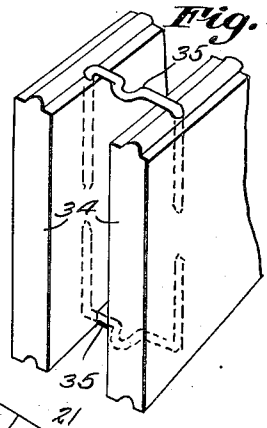


Fig. 2.

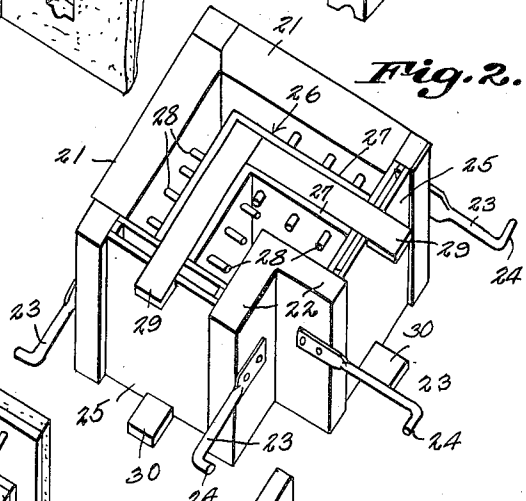


Fig. 3.

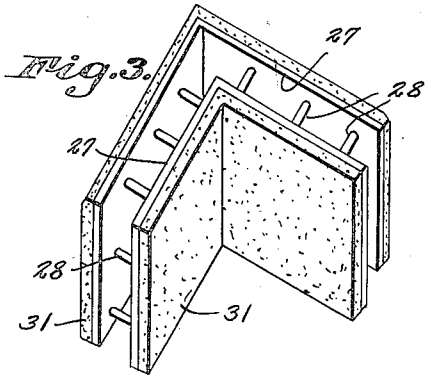
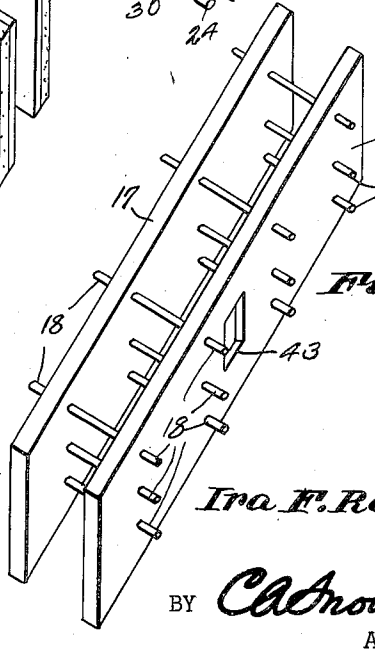


Fig. 4.



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Jan. 13, 1953 I. F. REED 2,624,929

WALL BLOCK MOLD

Filed May 5, 1949 3 Sheets-Sheet 2

Fig. 7.

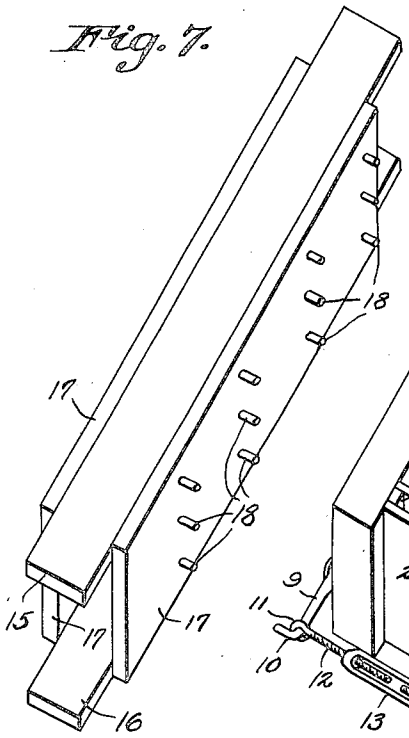


Fig. 8.

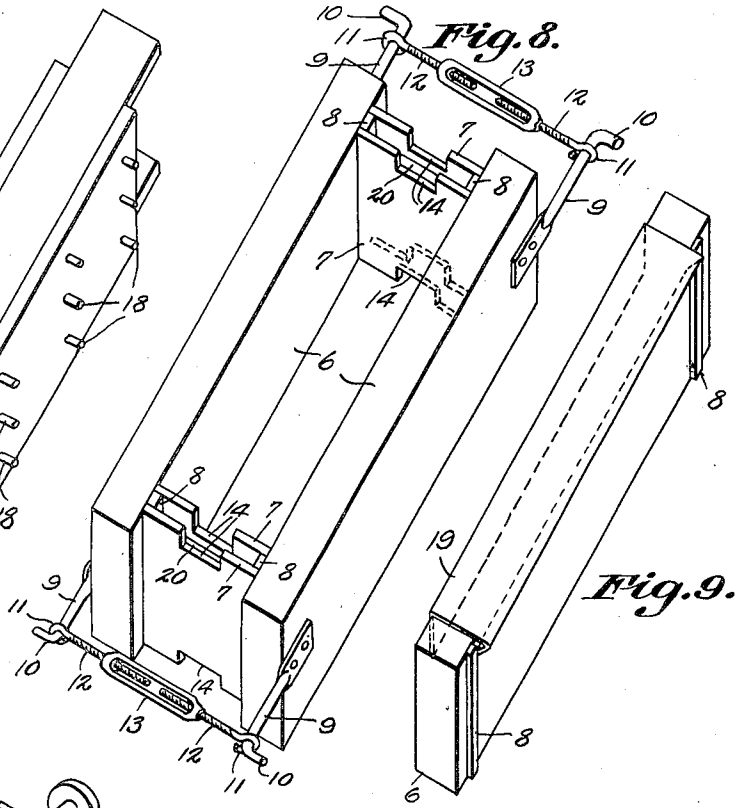
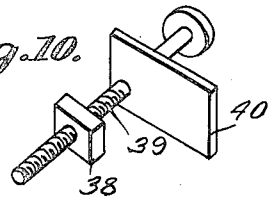


Fig. 9.

Fig. 10.



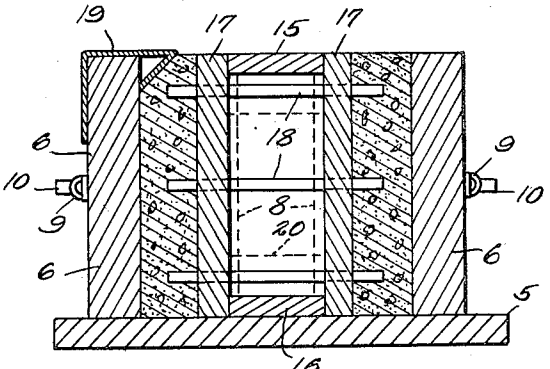


Fig. 12.

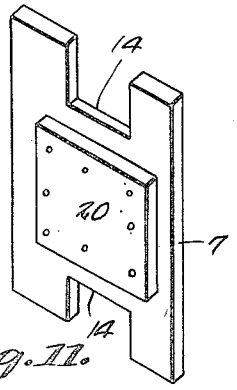


Fig. 11.

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Jan. 13, 1953 I. F. REED 2,624,929

WALL BLOCK MOLD

Filed May 5, 1949 3 Sheets-Sheet 3

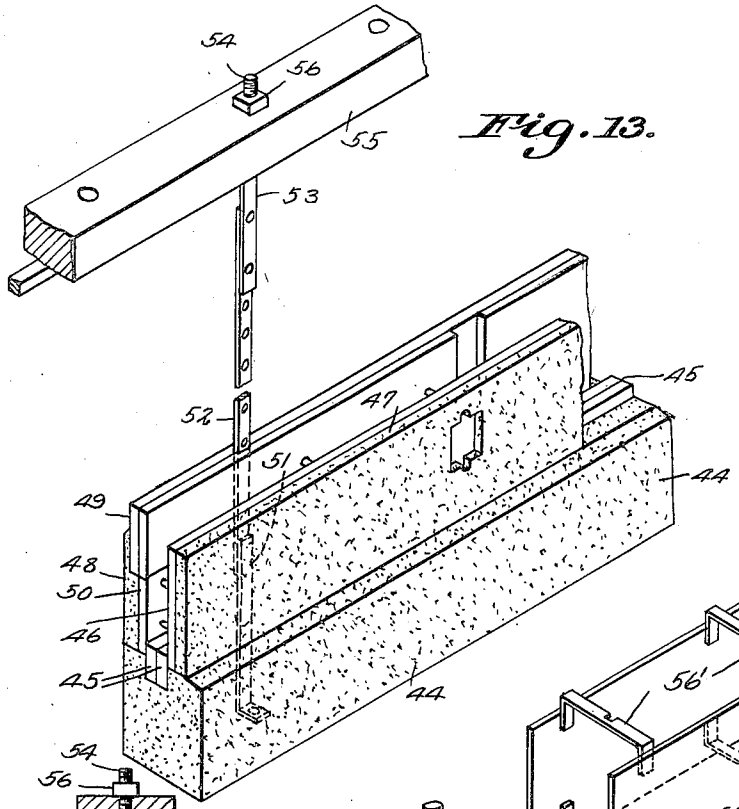


Fig. 13.

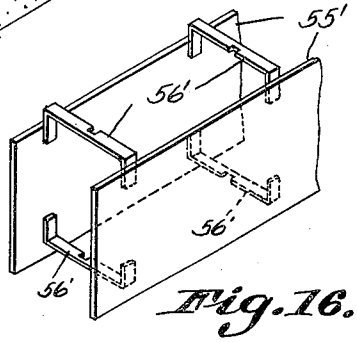


Fig. 16.

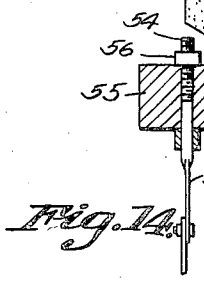


Fig. 14.

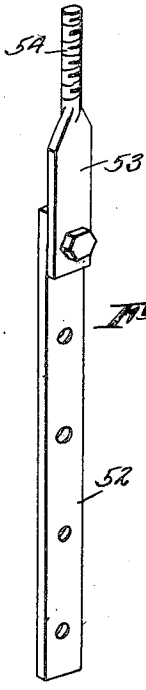
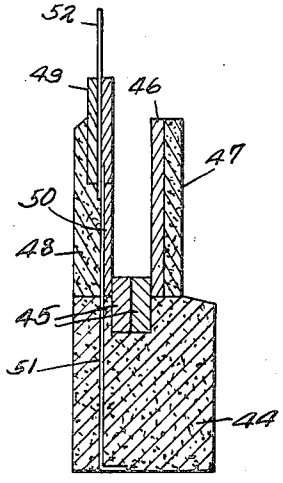


Fig. 15.



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Patented Jan. 13, 1953 2,624,929

UNITED STATES PATENT OFFICE

2,624,929

WALL BLOCK MOLD

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Application May 5, 1949, Serial No. 91,591

1 Claim. (Cl. 25—121)

1

This invention relates to building construction, the primary object of the invention being to provide a series of molds and a combination of elements which may be readily and easily assembled and united in such a way that an exceptionally strong and durable wall structure will be produced.

Another important object of the invention is to provide a building construction which will meet the low cost requirement, due to the simplified and economic manner used in the construction of the building.

Still another object of the invention is to provide molds which will securely hold fiberboard sections in spaced relation with respect to each other and between which plastic material, such as concrete or the like, is poured in the formation of a wall.

Still another object of the invention is to produce a wall construction unit having finished surfaces on both sides and in erection of these finished units, laid one upon the other, all walls being finished on both sides in a single operation, to further reduce the cost of construction.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawings

Figure 1 is a view illustrating the manner of directing the molds in the formation of a wall.

Fig. 2 is an enlarged view of a corner mold set up for the reception of concrete or other plastic material used in the wall construction.

Fig. 3 is a view of a finished corner unit which has been removed from the mold.

Fig. 4 is a view of two fiberboard sheets held in spaced relation with each other by the use of end bars or spikes.

Fig. 5 is a view disclosing a fiberboard portion of a wall structure.

Fig. 6 illustrates a wall structure constructed of wood in place of the fiberboard.

Fig. 7 is a view of a fiberboard mold section illustrating upper and lower wood strips held between the fiberboards of the section.

Fig. 8 is a view of one of the mold sections and into which the mold section as shown by Fig. 7 is positioned.

Fig. 9 is a view of one side of a mold and to which a chamfered metal form is secured.

Fig. 10 is a view of a partition securing means used in securing the end of a partition wall to the side of a wall of the building being constructed.

2

Fig. 11 is a view of one of the gates used at the ends of a mold.

Fig. 12 is a vertical sectional view through a mold with the concrete poured in molding a wall.

Fig. 13 is a view illustrating a base unit and means for securing the insulated concrete units together from the base course to the roof beams.

Fig. 14 is an end elevational view thereof.

Fig. 15 is a view of one of the sectional steel hanger posts, forming a part of the invention.

Fig. 16 is a view illustrating a construction unit constructed of steel wall plates.

Referring to the drawings in detail, the reference character 5 indicates a pallet and the reference character 6 indicates the side members of a mold which are held in spaced relation with respect to each other, by means of the end gates 7 which end gates 7 are also arranged in spaced relation with respect to each other, and arranged in pairs at the ends of the side members 6, the end gates 7 closely engaging the bars 8 that are disposed vertically of the inner surfaces of the side members 6, as clearly shown by Fig. 8 of the drawings.

Arms 9 are secured to the ends of the side members 6, and extend appreciable distances beyond the ends of the side members 6, where they are provided with hooks 10 that cooperate with the hooks 11 formed on the threaded shanks 12 of the turnbuckles 13. Thus it will be seen that when the end gates have been properly positioned between the side members and the turnbuckles 13 rotated to draw the shanks 12 towards each other, the side members 6 will be moved into close engagement with the ends of the end gates 7, securing the end gates in their upright positions.

These end gates are provided with notches 14 formed in the upper and lower edges thereof, which notches accommodate the upper and lower spaced strips 15 and 16 respectively, the strips 15 and 16 being of lengths so that the ends thereof extend beyond the ends of the side members 17 of the core, which is used within the side members 6.

The side members 17 of the core, are connected by the groups of rods 18, which rods have their ends extended beyond the side members 17, as shown by Fig. 12 of the drawings, anchoring the core of the block, in the concrete poured between the side members 17 and side members 6.

As shown by Fig. 9 of the drawings, a chamfered plate 19 is provided and fitted over the upper edge of the outer side member of the mold, so that when the concrete or plastic material is poured between the side member 6 of the mold and side member 17 thereof, the upper corner of the molded block, will be beveled throughout its length, with the result that when the blocks are positioned one upon another in the construction of a wall, the finished outer surface will have the appearance of clapboards.

In order that the end gates 7 will be held against bulging, under the weight of the concrete poured within the mold, spacing blocks 20 are provided on the end gates to hold the end gates spaced apart.

A corner block mold is illustrated by Fig. 2 of the drawings and embodies side members 21 which are arranged at right angles with respect to each other, and side members 22 which are also arranged at right angles with respect to each other, the members 21 and 22 being provided with arms 23 that have hooks 24 formed at their free ends, the hooks accommodating turnbuckles such as shown by Fig. 8 of the drawings, whereby the side members of the corner molds may be drawn together. With the corner molds, the end gates 25 are provided, which end gates hold the side members 21 and 22 in proper spaced relation with respect to each other. The core is indicated generally by the reference character 26 and comprises spaced sections 27 constructed of fiberboard, and held in spaced relation with respect to each other by means of the pins 28, which pins extend across the space between the sections 27, with their ends extended beyond the sections 27 where they become embedded in the concrete which is poured into the spaces between the members 27 and side members 21 and 22. Upper and lower strips 29 and 30 respectively are positioned within the space between the sections 27, the ends of the strips 29 and 30 resting in notches formed in the end gates 25 to hold the core centered, during the pouring. After the concrete has properly set and cured, the side members of the mold are removed and the corner pieces such as indicated by Fig. 3 of the drawings are provided, the outer surfaces of the fiberboard being covered with the concrete material indicated at 31.

In Fig. 5 of the drawings, I have illustrated fiberboard sections 32 which are held in spaced relation with respect to each other by means of the substantially U-shaped securing members 33 that have pointed ends which are driven into the edges of the sections 32.

In Fig. 6 of the drawing a similar structure is provided. In this particular showing, the side members 34 are held in spaced relation with respect to each other, by means of the U-shaped members 35 that are driven into the upper and lower surfaces of the members 34.

As shown by Fig. 13 of the drawings, the reference character 44 indicates one of the units used in providing a foundation. The member 44 includes a concrete foundation block which is formed with a longitudinal groove in its upper surface in which the fiber board elements or strips 45 are fitted, the strips 45 extending above the upper surface of the concrete foundation block providing shoulders.

These shoulders provide stops against which side or mold members 46 are positioned, the mold members 46 providing supports for the concrete slabs 47. These members 45 are used in constructing the inner wall surface of the building.

Resting on the concrete foundation block 44 and disposed against the outer surface of the strips 45, is a concrete unit 48 formed with a groove in which the fiberboard strip 49 is positioned. The fiberboard 50 rests against the member 45 and abuts the lower end of the section 49, as shown by Fig. 14 of the drawings.

Extending from the concrete foundation block 44 is the lower section 51 of the sectional steel hanger post, which in turn is connected with the

section 52 of the steel hanger post that connects with the end section 53 of the steel hanger post, the section 53 having a threaded end 54 extended through an opening in the roof beam 55, where it is supplied with a nut 56 securing the sectional steel hanger post to the beam.

In following out this structure, the wall may be built and the concrete insulated units secured together from the base course to the roof.

As shown by Fig. 16, the side members 55' embody steel plates which are held together by means of the inverted U-shaped bars 56' and operate in substantially the same manner as the members 35, shown by Fig. 6 of the drawings.

In the formation of the wall with the blocks constructed in accordance with the invention, the blocks are positioned one upon the other and held in such position by means of the connecting rods 36 that have hooks at their ends hooked over the pins which extend across the space between side members of the block, as clearly shown by Fig. 1.

As shown by Fig. 1 of the drawings, when it is desired to secure a partitioning wall at a point intermediate the ends of a side wall, a vertical wood strip 37 is positioned between the fiberboard sides of the blocks which abut the main wall, which wood strips 37 are engaged by the nuts 38 operating on the threaded shank 39, the shank 39 extending through the plate 40 that extends over the fiber wood surface of the block with which the fastener is used.

When the nut has been tightened, it will be obvious that the strip 37 will be securely held in position, and the block supported thereby will be held in a true vertical position.

In order that the blocks will be properly aligned, in the construction of the wall, a fiberboard member 41 is extended within the open upper edges of adjacent blocks, the fiberboard resting on the upper end of the fiber tongue 42 extending from the end of the block, as shown by Fig. 1. Switch boxes may be positioned in the switch box openings 43 that are formed during the molding of the blocks.

Having thus described the invention, what is claimed is:

A wall block mold comprising spaced side members, vertical bars secured to the inner surfaces of the side members at points in spaced relation with the ends of the side members, end gates embodying spaced members, the space between said spaced members of the end gates receiving said vertical bars, said spaced members of the gates having aligning notches in the upper and lower edges thereof for receiving a cone member, and means for drawing the side members of the mold into engagement with the edges of the end gates.

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