Oct. 8, 1929. I. A. BAUM 1,731,037

FRAME FOR WALL OPENINGS

Filed Oct. 6, 1927 3 Sheets-Sheet 1

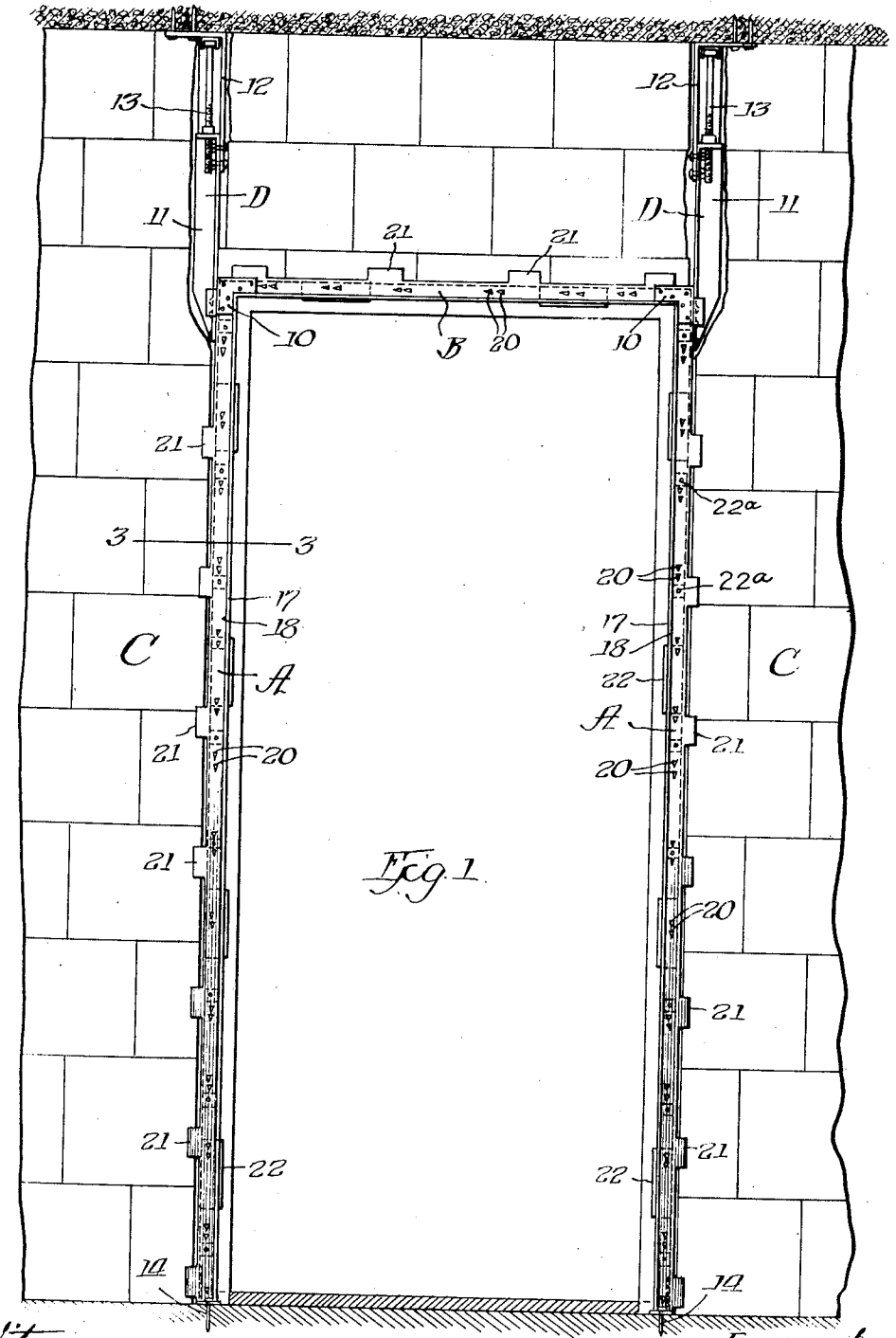


Fig. 1.

Witnesses:
H. C. Pierson

Inventor
Isaac A. Baum
By Chas J. Thorne
Atty

Oct. 8, 1929. I. A. BAUM 1,731,037

FRAME FOR WALL OPENINGS

Filed Oct. 6, 1927 3 Sheets-Sheet 2

Fig. 2

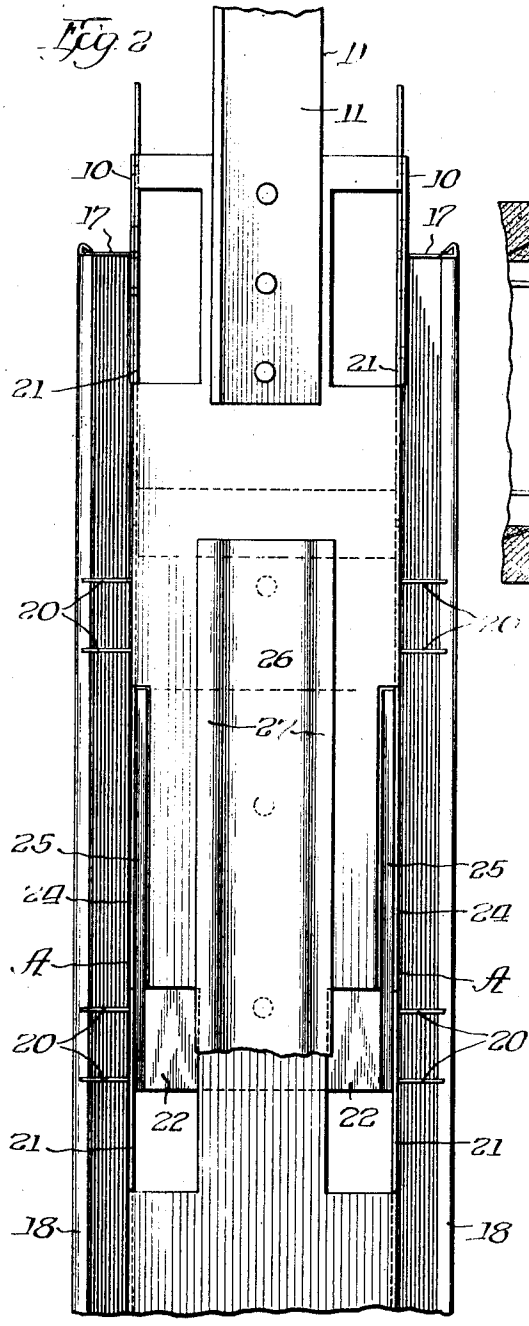
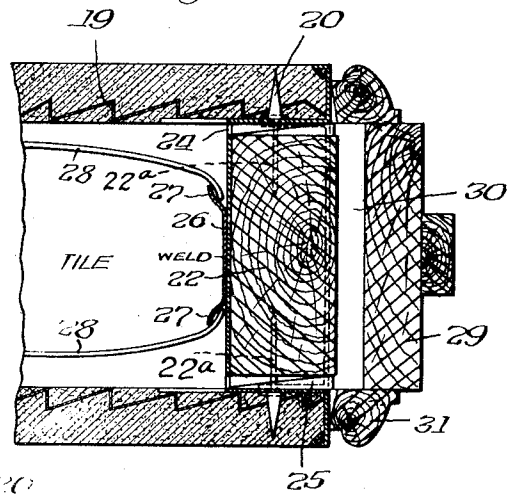


Fig. 3



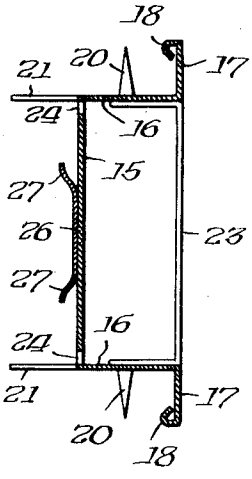


Fig. 4

Witness
[illegible]

Inventor
Isaac A Baum
By Chas F Murray Atty

Oct. 8, 1929. I. A. BAUM 1,731,037

FRAME FOR WALL OPENINGS

Filed Oct. 6, 1927 3 Sheets-Sheet 3

Fig. 5

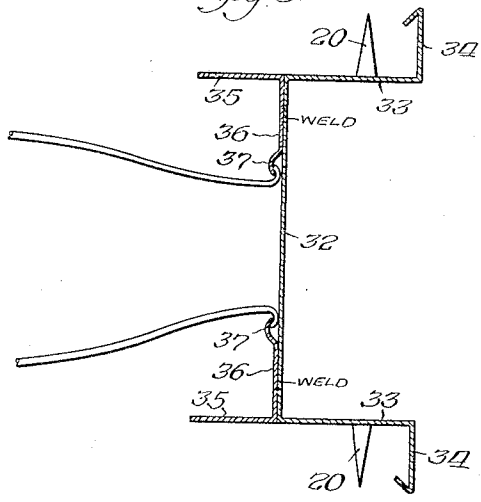


Fig. 6

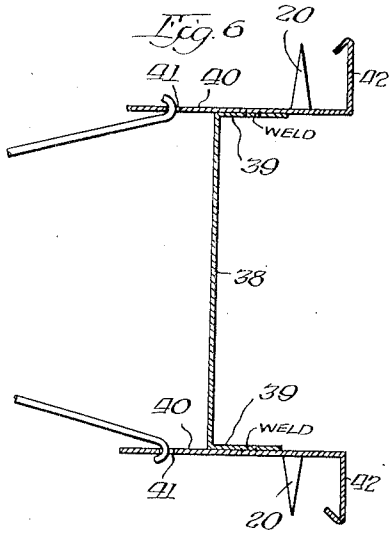


Fig. 7

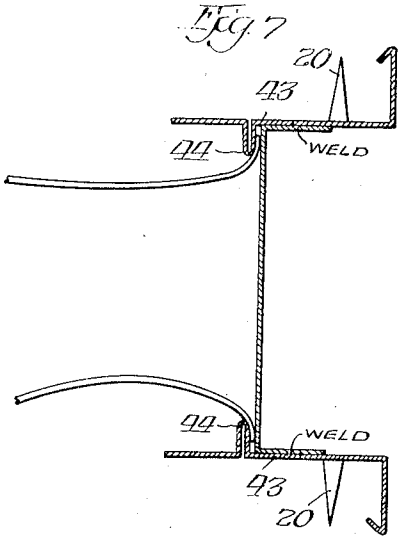
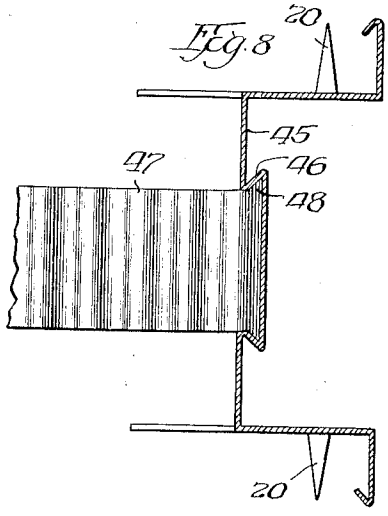


Fig. 8



Witness

Ed. C. Lyons

Inventor

Isaac A Baum

By Chas F Murray

Atty

Patented Oct. 8, 1929 1,731,037

UNITED STATES PATENT OFFICE

ISAAC A. BAUM, OF CHICAGO, ILLINOIS

FRAME FOR WALL OPENINGS

Application filed October 6, 1927. Serial No. 224,366.

My invention relates to framing for wall openings, and particularly to a novel framing composed wholly of metal with features adapting it for the application of wood trim thereto. The construction is an improvement on or an elaboration of that disclosed in my co-pending application Serial No. 219,095, filed September 12, 1927.

An object in the construction herein disclosed is to provide a metal frame for wall openings, particularly door openings, and to so construct the frame that short sections or lengths of wood may be rigidly and firmly combined therewith, such sections enabling the application of wood trim, such as jambs, casings and moldings, thereto. By this means I am enabled to securely position the frame and to utilize wood trim, all without the use of unnecessary wood or the selection of long, straight, and consequently expensive lengths of wood.

The result is secured by providing a three-sided frame, the frame members being of channel cross-section, the channel opening inwardly, and in mounting at spaced intervals in the channel short lengths of wood, to which the trim is secured.

As an added detail of construction, I associate with the channel a flange or flanges acting as a plaster terminal, other flanges acting as spacers or holding means for the channel relative to the wall tile or masonry, and anchors adapted to co-operate between the channel and the masonry to securely hold the parts in their intended relation.

The construction provides for numerous advantageous results. The frame is manufactured preferably as a unit, securely positioned between the floor and ceiling, securely anchored relative to the masonry walls, and arranged to constitute, in association with the different elements, a complete unit ready for the installation of the plaster and the trim immediately upon installation.

The invention will be more readily understood by reference to the accompanying drawings, in which,—

Fig. 1 is a side elevation of a door opening outlined by my improved frame, a tile wall without plaster being shown in connection therewith;

Fig. 2 is an enlarged elevation taken from the rear of one of the channels composing the frame;

Fig. 3 is a sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a similar sectional view without the lath, plaster, wood blocks or trim; and

Figs. 5, 6, 7 and 8 illustrate modifications in some of the details of the channel frame.

In the drawings, the frame is illustrated as comprising side-frame members A and a cross member B. A tile wall is shown at C, and frame clamps D.

As shown, the frame elements A, B are of generally channel shape in cross section and are joined at their ends by the angle plates 10. Secured to the upper ends of the side frames are angles 11, which, together with a longitudinally adjustable angle 12 and an adjustable bolt and nut 13, constitute the means for securely clamping the frame in position between the floor and ceiling. The details of this clamp are described and claimed in a co-pending application. The bottom ends of the side frames are secured to the floor by nails, anchor bolts or similar means, an example of which is indicated at 14.

As best shown in Figs. 2, 3 and 4, the side and cross frame members are of generally channel shape, comprising a web 15, flanges 16 and an angular strip 17 constituting a plaster terminal. The marginal edge of the part 17 is bent and re-bent, as at 18, to form a bead the surface of which acts as a plaster ground. The relation of the terminal and bead to the plaster is shown in Fig. 3. Preferably also, as a means for securing metal lath 19 to the channel, 1 strike out tongues 20 at intervals from the flanges 16,

the tongues being adapted to pass through the meshes of the lath and to be thereafter bent or hammered down.

Preferably also, I strike out from the web 15 the ears 21, clearly shown in Figs. 1 and 4, the ears serving the purpose of laterally positioning and holding the tile or masonry elements C.

In order to prevent spreading of the channel by the wedging therein of the wood blocks 22, I provide at intervals in the length of the channel the cross channels 23 constructed to fit snugly between the flanges 16 and be welded or otherwise secured in the position shown. At points between the channel braces I slit the web 15, as indicated at 24, to permit of the ingress or egress of positioning wedges 25 required for use in connection with the wood blocks 22.

On the back face of the web 15 of the channel I mount a continuous strip 26 having upturned and hooked margins 27 adapted to be engaged by wall anchors 28, which may be in the form of the wire loops shown. These anchors are intended to be imbedded in the masonry, preferably between adjacent layers of tile.

As indicated in dotted lines in Fig. 1, the wood blocks 22 will be installed at intervals in the length of the side and cross frame members, the number and length of the blocks being largely left to the discretion of the builder. The wood portions may be obtained from otherwise waste lengths or short ends of 2 x 4's such as commonly wasted and thrown away at buildings.

After the wood blocks are installed, by means of the wedges or otherwise and secured by means of the nails 22^a that extend through the flanges of the channels, a door jamb 29 may be placed in position and wedged in the space 30 in the usual manner nails or screws, not shown, being driven through the jamb and into the blocks in the usual manner. Thereafter the molding 31 is put in place, serving to close the space 30 and to act as a brace and support for the plaster terminal 17.

In the construction shown in Fig. 5, the details of the channel remain the same, it having a web 32, flanges 33 and plaster terminal 34. However, instead of striking out ears from the web and applying a strip for engagement with a wall anchor, I secure to the web 32, by welding or otherwise, a pair of angles. One leg 35 of each angle acts as a continuous member for positioning the frame relative to the wall, and the other leg 36 of the angle, having an upturned end 37, acts as a means for engagement by a wall anchor.

In the construction shown in Fig. 6, the channel has a web 38 and side flanges 39 which serve as means for welding engagement with angles having the function of the parts 33, 34, 35 described in Fig. 5. One leg 40 of the angle is extended beyond the rear face of the web 38 and acts as a lateral guide for the frame relative to the wall. It is also apertured or slotted at intervals, as at 41, for engagement with the hooks of a wall anchor. The other leg 42 of the angle constitutes a plaster terminal.

In the construction shown in Fig. 7, the parts remain much the same as those shown in Fig. 6 except that the leg 43 corresponding to the leg 40 of the construction of Fig. 6 is crimped, as at 44, to constitute means for engagement by the wall anchor. This avoids the necessity for perforating the member and permits the anchor to be installed without any portion thereof projecting outside of the plane of the channel.

In the construction of Fig. 8 the channel has a web 45 provided with a continuous dovetailed or undercut groove 46 therein. Otherwise the channel is identical with that shown in Figs. 1 to 4, inclusive. The undercut groove 46 provided in the web of the channel permits of the association therewith of a wall anchor 47 having a head 48 fitting the undercut groove in the channel. It is installed by rotating it into place, this being done during the building up of the tile wall.

It is obvious that other forms of the invention may be devised, and I do not wish to be limited except as indicated in the appended claims.

I claim:

1. A unitary metallic frame for wall openings comprising side and cross members rigidly joined, the frame members being of generally channel shape in cross section, means associated with the frame members for providing a plaster terminal and lateral guides for co-operation with a wall, and relatively short lengths of wood blocks rigidly held in said channels and adapted to hold wood trim.

2. A unitary frame for wall openings comprising two side members and one cross member rigidly joined, said side and cross members being of generally channel shape in cross section, means integral with said channel shaped members for laterally fixing the same relative to a wall, means for engagement between the channel and a wall anchor, means providing a plaster terminal, and wood elements mounted in the channel and adapted to serve as a support for wood trim for the wall opening.

3. A frame member for wall openings comprising a generally channel-shaped element having means for engagement with the wall in which it is positioned, wood blocks located in the channel at spaced intervals, and braces extending across the otherwise open side of said channel at points between said wood blocks to prevent spreading of said channel.

4. A unitary frame member for wall openings comprising channel-shaped elements and means for mounting the frame relative to the wall in which it is placed, wood blocks

located at spaced points in said channels and constituting means for the support of wood trim, wedges for positioning said wood blocks, and cross ties extending across the otherwise open channel and serving to prevent spreading of the channel under the action of the wedges.

In testimony whereof I have affixed my signature.

ISAAC A. BAUM.