July 18, 1939. J. G. BAUER 2,166,576

FORM RELEASE SHORE HEAD

Filed Jan. 24, 1938

Fig. 1.

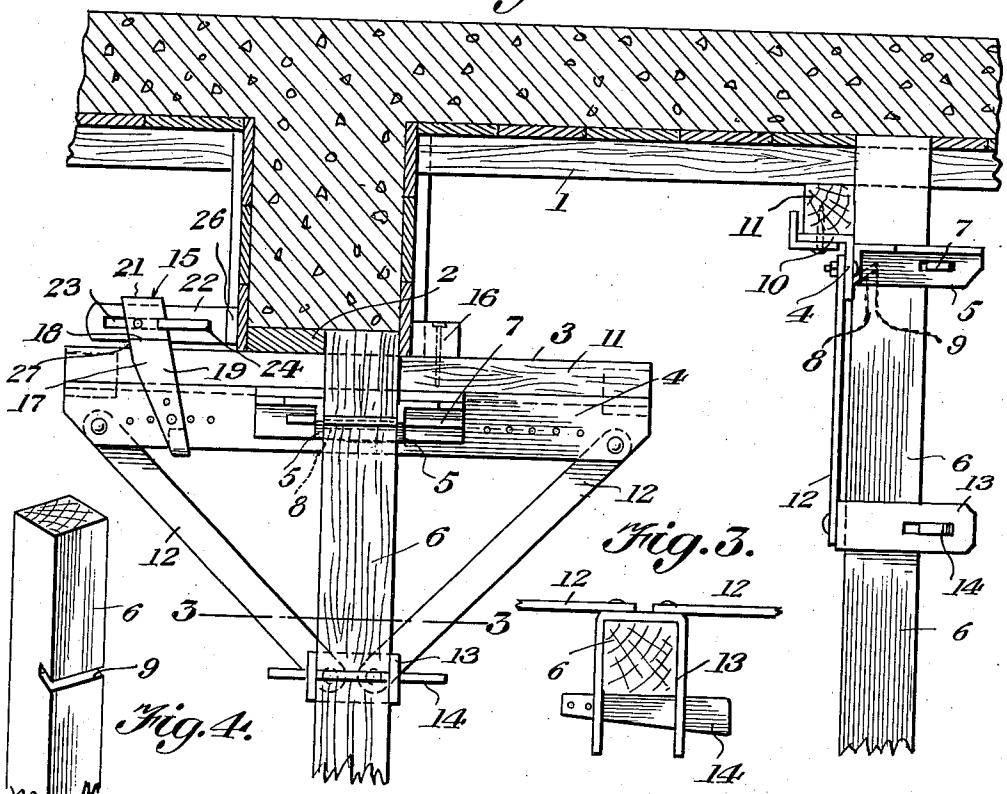


Fig. 3.

Fig. 4.

Fig. 2.

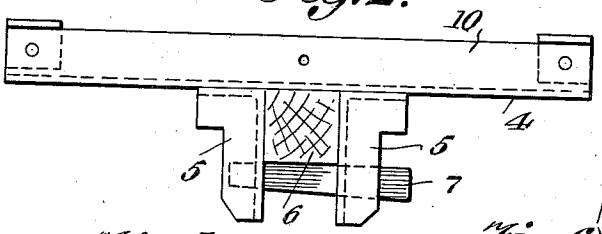


Fig. 5.

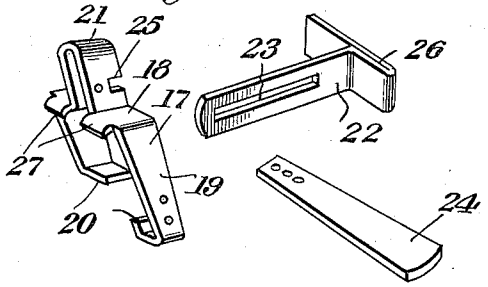
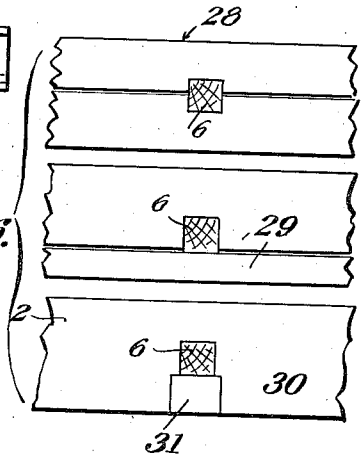


Fig. 6.



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FORM RELEASE SHORE HEAD

Jake Gus Bauer, Albuquerque, N. Mex.

Application January 24, 1938, Serial No. 186,698

5 Claims. (Cl. 25—131.5)

This invention relates to concrete forms or molds employing supporting shores or posts and has for the primary object, the provision of means employed between a shore or post and the mold, whereby the latter may be removed from the concrete as soon as initially set without disturbing the shore or post allowing the latter to support the concrete while becoming finally set or self-sustaining, whence the shore or post may be removed, thus said means permits the use of the mold within a much shorter period of time than heretofore possible with the types of molds and supporting posts now in use.

With this and other objects in view, this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which—

Figure 1 is a fragmentary vertical sectional view illustrating a mold containing concrete while setting and supported by shores or posts and with means whereby the mold may be removed from the concrete after initial setting without disturbing the shores or posts.

Figure 2 is a top plan view partly in section illustrating the mold release on a shore or post.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a fragmentary perspective view illustrating the supporting shore or post.

Figure 5 is a perspective view illustrating an adjustable clamp between the mold and the shore head.

Figure 6 is a diagrammatical plan view showing several forms of mold bases to be used in connection with the shore or post.

Referring in detail to the drawing, the numeral 1 indicates a sectional mold or form for molding concrete in desired shapes. To support the mold in a desired position, a plurality of shore heads and supporting shores or posts are provided therefor. The mold or form 1 is provided with removable shore or post engaging members 2 which permit the upper ends of the shores or posts to come into direct contact with the concrete within the mold or form so that after the concrete has become initially set the mold or form may be removed therefrom leaving the shores or posts supporting the concrete whence they may be removed after the final setting of the concrete or when the latter becomes self-sustained. The shore or post heads are identical in construction and reference to one is thought sufficient for all.

The head is indicated by the character 3 and includes a supporting bar 4 of angle iron construction and is provided with spaced arms 5 of angle iron construction adapted to receive therebetween the post or shore 6. The arms 5 are provided with aligning slots to receive a wedge-shaped key 7 for the purpose of wedging the bar 4 and arms 5 to the post 6. The bar 4 carries an upwardly inclined tongue 8 adapted to fit within an under-cut notch 9 formed in the post and cooperates with the key 7 in firmly securing the bar 4 to the post and which will permit the bar to be readily detached from the post by simply removing the key 7 from the arms 5. A right angle flange 10 is formed on the bar 4 and has secured thereto a mold engaging strip 11 which may be constructed of wood or other similar material whereby the mold may be fastened thereto temporarily by suitable fasteners. However, in the use of this device it is not necessary that the strip 11 be attached to the mold by said fasteners.

Braces 12 are secured to the outer ends of the bar 4 and to a substantially U-shaped clamp 13 fitting about the post or shore below the arms 5. The arm portions of the clamp 13 are provided with aligning slots to receive a wedge shaped key 14 adapted to have binding engagement with the post or shore whereby the lower ends of the braces are firmly anchored to the post or shore and which permits the braces to be easily disconnected from the post or shore when desired.

Mold clamping means 15 may be provided on the bar 4 at opposite sides of the post or shore or if desired only one of said clamping means 15 may be employed and adapted to operate in conjunction with a block or strip 16 secured to the strip 11 as shown in Figure 1.

The clamping means 15 consists of a substantially U-shaped bracket 17, the bight portion 18 of which rests upon the strip 11 with the arm portions 19 depending downwardly on opposite sides of the angle bar and having their ends bent inwardly to form flanges 20 for slidable engagement with the angle bar 4. The bight portion 18 is formed integrally with a yoke 21 adapted to slidably receive a mold engaging element 22. The element 22 is substantially T-shaped with the stem portion received within the yoke and provided with a slot 23 to receive a wedge-shaped key 24 with the latter fitting within notches 25 formed in the walls of the yoke whereby the head portion 26 of the element 22 may be forced

tightly into engagement with the mold or form 1. Teeth or projections 27 are formed on the bight portion 18 and adapted to bite into the strip 11 to prevent sliding of the bracket 17 relative to the strip 11 and bar 4 when the mold engaging element is in the act of retaining the mold in its proper position. The shore or post engaging member 2 may be constructed of a single piece as shown in Figure 1 with a notch to receive the upper end of the post and said notch opening through one edge of the member or the member may be constructed as shown at 28 in Figure 6 wherein it consists of a pair of members with aligning notches in the opposing edges to receive the post and said members being of substantially equal width or the members may be of unequal width as shown at 29 in Figure 6. The member 2 as shown at 30 in Figure 6 may have the notch to receive the post to extend a greater distance in from one edge thereof than that shown in Figure 1 so that the post will be located substantially in the middle of the concrete reinforcing portion to the wall or ceiling as shown in Figure 1. The notch after receiving the post may be closed by a plug or filler 31.

In operation with the device assembled as shown in Figure 1 and after the concrete has become initially set the mold or form 1 can be easily removed by adjusting the clamping means 15 and detaching the bar 4 and braces 12 from the post by removing the keys 7 and 14 and with the shore or supporting post head removed from the shore or post it is then easy to remove the mold leaving the shore or post directly in contact with the concrete for the purpose of supporting the same until finally set or when it becomes self-sustained. By this arrangement it is possible to again employ the mold or form within a much shorter period of time over the conventional type of molds now employed.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of my invention, as claimed.

Having thus described my invention, what I claim is:

1. In combination, a mold to receive plastic material, a shore for the mold and engageable with the plastic material, a supporting bar to engage the mold and the shore, spaced arms having slots carried by the bar and receiving the shore, and a wedge-shaped pin received by said slots and engageable with the shore.

2. In combination, a mold to receive a plastic material, a shore for a mold and engageable with the plastic material and having a notch, a supporting bar engaging the shore and spaced from the mold, spaced arms having slots on the bar and receiving the shore, a wedge-shaped pin received by said slots and engageable with the shore, a tongue on the bar and fitting in the notch, and an element interposed between the supporting bar and the mold to support the said mold.

3. In combination, a mold to receive a plastic material, a shore for a mold and engageable with the plastic material and having a notch, a supporting bar engaging the mold and the shore, spaced arms having slots on the bar and receiving the shore, a wedge-shaped pin received by said slots and engageable with the shore, a tongue on the bar and fitting in the notch, braces secured to the ends of the bar, and means detachably and adjustably securing the braces to the shore.

4. In combination, a mold to receive a plastic material, a shore for a mold and engageable with the plastic material and having a notch, a supporting bar engaging the mold and the shore, spaced arms having slots on the bar and receiving the shore, a wedge-shaped pin received by said slots and engageable with the shore, a tongue on the bar and fitting in the notch, braces secured to the ends of the bar, a U-shaped clamp connecting the braces and receiving the shore and having aligned slots, and a wedge-shaped key received by the last named slots and engageable with the shore.

5. In combination, a mold to receive plastic material, a shore for the mold and engageable with the plastic material, a bar engaging the mold and detachably secured to the shore, an abutment carried by the bar and engaging the mold, a U-shaped clamp engaging the bar and adjustably secured thereto, a mold retaining element received by the said U-shaped clamp and engaging the said mold and having a slot, and wedge shaped pin received by said slot and engageable with the said U-shaped clamp.

JAKE GUS BAUER.