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2,845,684

PREFABRICATED FORM WITH SILL MEMBER

Filed Aug. 16, 1954

2 Sheets-Sheet 1

FIG-1

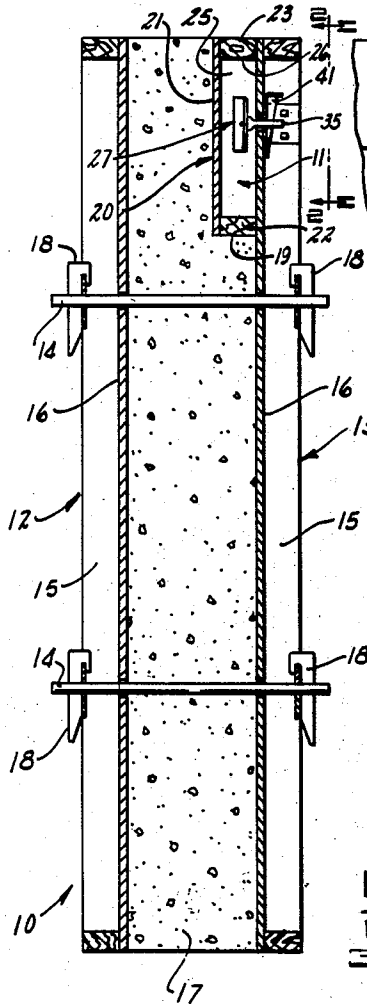
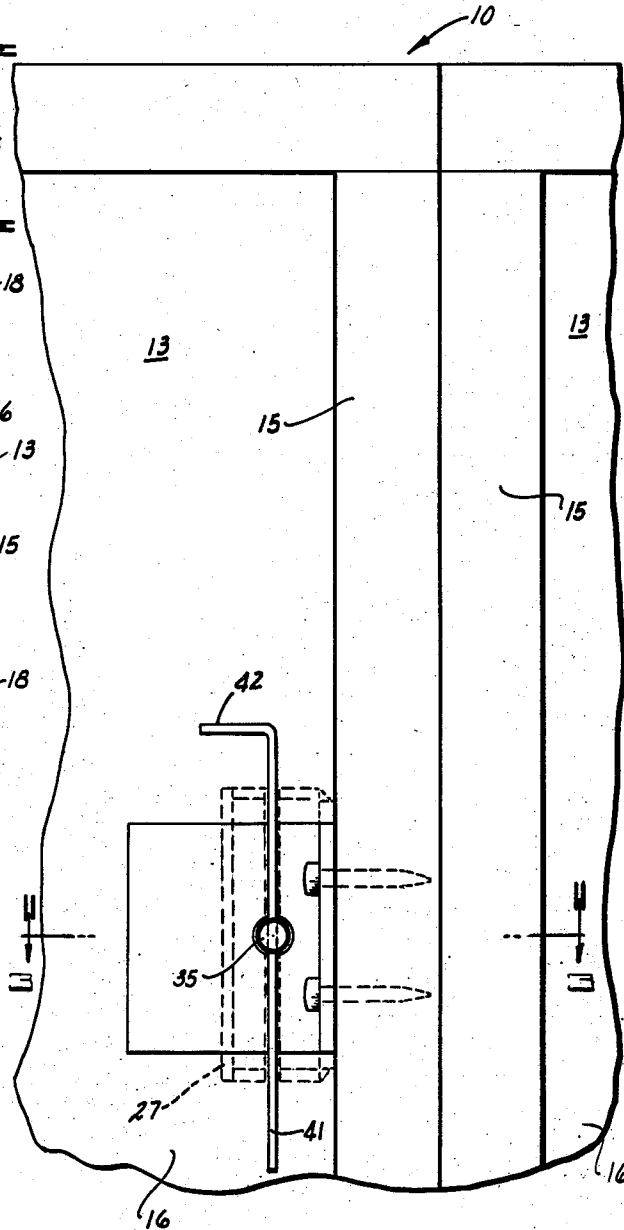


FIG-2



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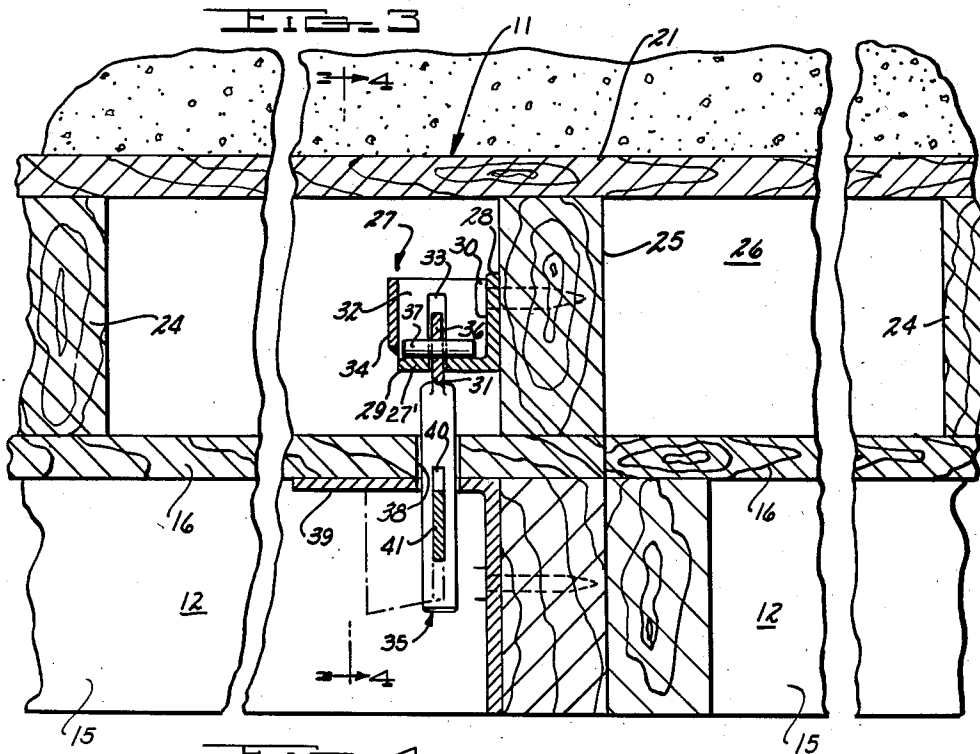
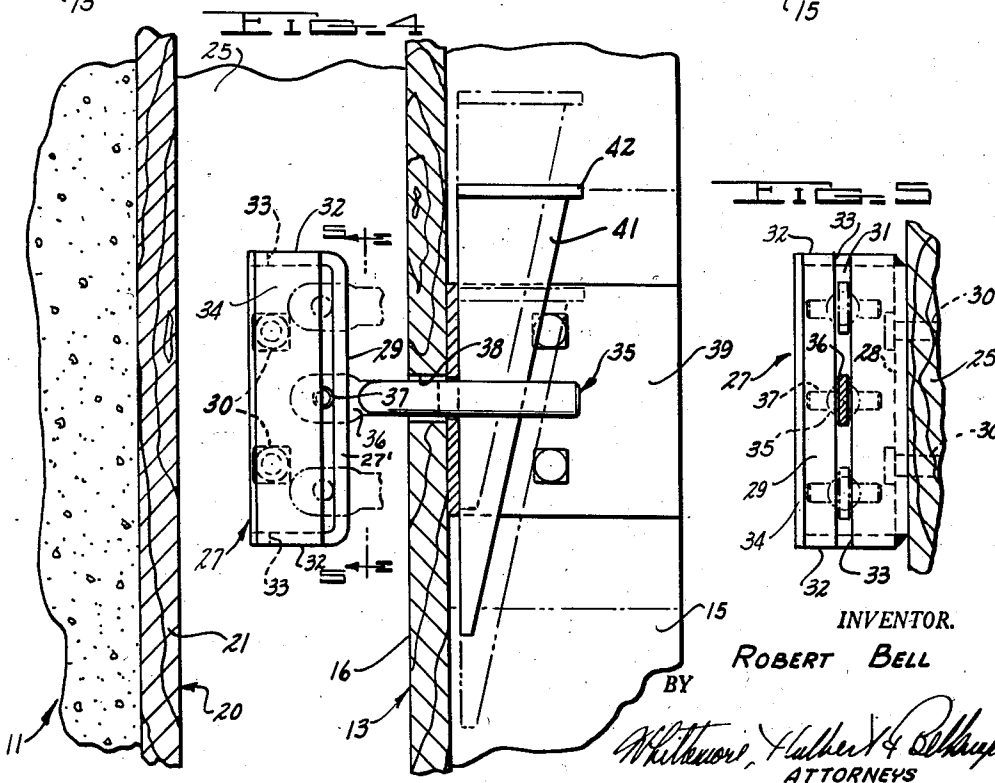
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1

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PREFABRICATED FORM WITH SILL MEMBER

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5 Claims. (Cl. 25—131)

This invention relates generally to prefabricated forms for composition walls having an offset portion or sill and refers more particularly to improved means for forming the offset or sill.

It is an object of this invention to provide offset or sill forming means capable of being readily attached to and removed from the inner face of wall forming panels by fastening devices which not only permit appreciable adjustment of the sill forming means relative to the adjacent wall forming panel but, in addition, are shielded or protected from the composition material employed in forming the wall.

The foregoing as well as other objects will be made more apparent as this description proceeds especially when considered in connection with the accompanying drawings wherein:

Figure 1 is a vertical sectional view through a prefabricated form for composition walls;

Figure 2 is an elevational view of the outer side of the form shown in Figure 1;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a sectional view taken on the line 4—4 of Figure 3; and

Figure 5 is a sectional view taken on the line 5—5 of Figure 4.

In the drawings, the numeral 10 designates a prefabricated form for walls of composition material such, for example, as concrete and the numeral 11 designates a form for producing a sill on the wall cast in the form 10. The form 10 comprises an inner wall section 12 and an outer wall section 13 held in lateral spaced relationship to the inner wall section 12 by any suitable means such as tie rods 14. Each wall section has a frame structure 15 and a panel 16 secured to the frame structure at the inner side of the latter. The panels 16 provide the wall sections with smooth inner surfaces which cooperate with one another to form opposite sides of a composition wall 17.

The tie rods 14 extend through aligned openings in the panels 16 and the opposite ends of the rods are removably anchored to the frame structure 15 of the sections by wedges 18. The wedges 18 extend downwardly through slots formed in the tie rods 14 and have portions at the upper ends shaped to hook over adjacent bars of the frame structure. The arrangement is such that the rods 14 may be readily installed during assembly of the form and may be easily removed by withdrawing the same from the wall 17 after the latter has partially set.

In the present instance it is desired to form a sill or ledge 19 on the outer surface of the wall 17 and this is accomplished by the form 11. The form 11 comprises a box 20 elongated in the direction of length of the wall sections and positioned within the space provided between the panels 16 at the top of said space. The outer side of the box 20 is open and the box is clamped to the inner surface of the outer panel 16 with the open side closed by the outer panel. The box 20

2

has an inner wall in the form of a smooth imperforate panel 21, a bottom wall 22, a top wall 23, and end walls 24. In addition, the box 20 has at least one cross brace 25 extending between the top and bottom walls intermediate the end walls 24. In any case, the box 20 cooperates with the panel 16 of the outer wall section 13 to provide an enclosed space 26 of a nature to exclude the composition material during the pouring operation. Also, the depth and height of the box 20 is predetermined to provide the specified sill or ledge 19 on the outer surface of the wall 17.

The box 20 is removably clamped with its open outer side against the panel 16 of the outer wall section 13 of the form 10 by a fastening device 27 housed entirely within the space 26 confined by the box. The device 27 comprises a vertically extending anchor element or member 27' having flanges 28 and 29 extending at right angles to one another. The flange 28 is secured to one side of the brace 25 intermediate opposite side edges of the latter by screws 30 and the flange 29 extends in a plane parallel to the plane of the open outer side of the box. The flange 29 is also spaced laterally inwardly from the open side of the box and is fashioned with a vertically extending slot 31. The slot 31 extends for the full length of the flange 29 intermediate opposite side edges of the latter.

The opposite ends of the flange 29 are provided with tabs 32 which extend laterally inwardly from the flange 29 and are welded to the flange 28. The tabs 32 are formed with elongated slots 33 which form extensions of opposite ends of the slot 31 in the flange 29. Also the fastening device 27 is strengthened by a reinforcing plate 34 extending between the tabs 32 and welded to the latter in opposed relationship to the flange 28.

In addition, the fastening device 27 has a bolt 35 flattened at the inner end as at 36 to freely extend through the slot 31 in the flange 29 of its anchoring element 27', and has pin 37 extending at right angles to the bolt 35 through an opening in the flattened end 36 of the bolt. The opposite ends of the pin 37 have a rolling contact with the inner surface of the flange 29 at opposite sides of the slot 31 and thereby permits swinging movement of the bolt 35 relative to the flange 29 in a plane perpendicular to a plane including the flange 29. Also, the bolt 35 may slide freely relative to the flange 29 to different vertical positions (Figures 4 and 5) and may also slide along the slots 33 in the tabs 32 at opposite ends of the flange 29. As will be apparent from the drawings sliding of the bolt 35 vertically along the slot 31 in the flange 29 permits adjusting the elevation of the box 20 relative to the outer wall section 13 to locate the sill or ledge 19 in the specified position, and sliding of the bolt 35 along either of the slots 33 in the tabs 32 renders it possible to locate the bolt in an out-of-the-way position when the box is not in use.

The outer end of the bolt 35 projects through an opening 38 formed in the panel 16 of the outer wall section 13 and also through an opening provided in one flange of an angle plate 39. The angle plate 39 is secured to the outer side of the panel 16 for the outer wall section 13 and is also fastened to an adjacent part of the frame structure 15, as shown in Figure 3 of the drawings. This angle plate may be omitted, if desired, but is preferred in cases where the wall section 13 is formed principally of wood or some equivalent material. In any case, the outer end of the bolt 35 is formed with a slot 40 there-through which extends lengthwise of the bolt and receives a wedge 41. The wedge 41 is in the form of a flat plate having the opposite edges converging to substantially a point and having the upper end turned laterally to provide a head 42. Actually the inner edge of the wedge 41

3

is perpendicular to have a flat bearing contact with the adjacent flange of the plate 39 and the outer edge is tapered toward the inner edge to have a wedging engagement with the bolt 35 at the outer end of the slot 40.

The above structure is such that downward movement of the wedge 41 relative to the bolt 35 forces the open side of the box 20 tightly against the panel 16 of the outer wall section 13. As stated above the bolt 35 is adjustable vertically relative to the box 20 so that the box may be readily positioned at the proper elevation on the panel 16 of the outer wall section 13 before driving the wedge 41 in place. As also noted above, the fastening device 27 is housed entirely within the panel 21 and walls of the box 20 and is thoroughly protected from the composition material during the pouring operation.

What I claim as my invention is:

1. A form for composition walls having a sill portion, comprising laterally spaced panel sections cooperating with one another to form a composition wall, sill forming means comprising an elongated box having one side open and positioned between the panel sections with the open side clamped against the inner surface of one of the panel sections to provide a space closed against entrance of composition wall forming material, an anchor element housed within the box and secured to the box, said anchor element having a vertically extending abutment spaced inwardly from the panel section adjacent the open side of the box and having a vertically extending slot in said abutment, a bolt having the inner end projecting through the slot and having the outer end extending through an opening in the panel section adjacent the open side of the box, bearing means on the inner end of the bolt slidably engageable with the inner face of the abutment, and a wedge extending through a slot in the outer end of the bolt and engageable with the outer side of the adjacent panel section.

2. The structure defined in claim 1 wherein the bearing means comprises a pin extending transversely through an opening in the inner end of the bolt and having a rolling contact with the inner face of the abutment at

4

opposite sides of the vertically extending slot in said abutment.

3. A form for composition walls having a sill portion, comprising a panel section adapted to form one side of a composition wall, sill forming means comprising an elongated box having one side open and having the open side clamped against the panel section, an anchor element housed within the box and fastened to said box, said anchor element comprising a plate extending parallel to and spaced inwardly from the plane of the open side of the box, a bolt having the inner end extending through a vertically elongated slot in the plate and having the outer end projecting through an opening in the panel section, bearing means on the inner end of the bolt and having a rolling contact with the inner face of the plate at opposite sides of the slot in said plate, and a wedge element extending through a slot in the outer end portion of the bolt and abutting the outer surface of the panel section.

4. The structure defined in claim 3 comprising a flange projecting laterally from one end of the plate and having an elongated slot forming a continuation of the slot in the plate to enable swinging the bolt around one end of the plate when not in use.

5. The structure defined in claim 4 comprising a flange projecting laterally from the opposite end of the plate and having a slot forming a continuation of the adjacent end of the elongated slot in said plate.

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