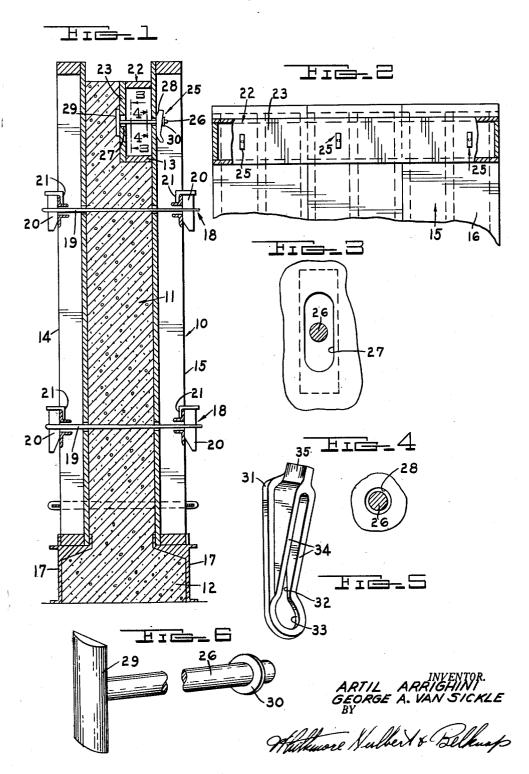
## A. ARRIGHINI ET AL

FORM FOR COMPOSITE WALLS HAVING A SILL

Filed April 19, 1948



# UNITED STATES PATENT OFFICE

2.511.829

#### FORM FOR COMPOSITE WALLS HAVING A SILL

Artil Arrighini, Detroit, and George A. Van Sickle. Mount Clemens, Mich.

Application April 19, 1948, Serial No. 21,964

3 Claims. (Cl. 25-131)

2

Self to America, When the Williams We office the American selection

This invention relates generally to forms for composition walls, and refers more particularly to improvements in prefabricated forms having means for fashioning a sill part on the composition walls.

For example, when producing composition side walls for subfloors or basements of buildings having brick or some other type of veneer, it is customary to form a sill adjacent the top of the side walls at the outer sides of the latter for sup- 10 porting the veneer. In cases where prefabricated forms are used to form the composition walls, it is advantageous to provide some means on the outer wall form which will produce the required sill on the composition wall.

One of the objects of this invention is to provide a form for producing the sill capable of being readily removably clamped to the inner face of the outer wall form by fastening means which may be readily manipulated.

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

Figure 1 is a sectional view showing a prefab- 25ricated form in operative relation with a composite wall;

Figure 2 is a fragmentary elevational view of the inner side of the outer wall form;

Figure 3 is a cross sectional view taken on the 30 line 3—3 of Figure 1;

Figure 4 is a cross sectional view taken on the line 4-4 of Figure 1:

Figure 5 is a perspective view of a clamp forming a part of the fashioning means for the sill 35 form: and

Figure 6 is a perspective view of another part of the fashioning means.

In Figure 1 of the drawing the numeral 10 designates generally a prefabricated composition 40 wall form, and the numeral 11 designates a composition wall of the type capable of being produced by the form io. The wall it has a footing 12 at the bottom thereof and has a sill 13 formed on the outer side of the wall !! adjacent the top 45 of the wall. In accordance with conventional practice the sill 13 extends for the full length of the wall II and is adapted to support suitable veneer (not shown) on the wall II.

The prefabricated form 10 comprises an inner 50 wall 14 and an outer wall 15. The two wall forms are composed of a plurality of sections 16, and are respectively supported at their lower ends on a pair of rails 17 which are suitably fashioned to

wall forms 14 and 15 are held in the spaced lateral relationship by means of vertically spaced fastener elements 18.

Each fastener element 18 comprises a tie bar 19 and a pair of clips 20 respectively detachably secured to opposite ends of the tie bar. The tie bars 19 extend through aligned openings formed in the laterally spaced wall forms and are tapered to enable readily withdrawing the same when it is desired to dismantle the prefabricated form. The clips 20 for each fastener element respectively extend through suitable slots formed in opposite ends of the associated tie bar and are positioned to respectively abut the outer surfaces of the wall forms to prevent relative displacement in a laterally outward direction. In addition each clip is formed with a hook 21 adapted to hook over adjacent parts of the wall forms in the manner shown in Figure 1 of the drawing to 20 hold the wall forms against relative inward movement.

The sill 13 on the composition wall 11 is fashioned by a form 22 which may be produced in sections having a length suitable for convenient handling, and is preferably channel-shaped in cross section. Regardless of whether the sill form 22 is formed of one piece or in sections, it extends for the full length of the wall form 15, and is removably clamped to the inner face of the wall form 15 adjacent the top of the latter with the base section 23 spaced laterally inwardly from the inner surface of the wall form 15. When the sill form 22 is clamped in the above position on the wall form 15, the latter serves as a closure for the channel to prevent the entrance of composition material during the pouring operation.

The sill form 22 is removably clamped in place by means of a plurality of fastener elements 25. Each fastener element 25 comprises a bar 26 adapted to extend through aligned openings respectively formed in the base 23 of the form 22 and the wall form 15. The opening 27 in the base of the channel-shaped sill form 22 is vertically elongated, and the registering opening 28 in the wall form 15 is enlarged with the result that the position of the sill form 22 relative to the wall form 15 may be varied to some extent. A head 29 is secured to the inner end of the bar 26 in a position to abut the adjacent side of the sill form 22, and an annular enlargement 30 is formed on the outer end of the rod 26. The enlargement 30 has a diameter less than the diameter of the opening 28 in the wall form 15 and form the footing 12 of the wall 11. The sectional 55 less than the width of the vertically elongated 19 93 3

slot 27 through the base of the sill form 22. The arrangement is such as to permit passage of the enlargement 30 through the slot 27 and opening

28 during assembly. Each fastener element 25 also includes a clip 31 having an elongated slot 32 therethrough terminating at the lower end in an opening 33 having a diameter sufficiently greater than the diameter of the annular enlargement 30 on the associated rod 26 to enable assembling the clip on the rod. As shown particularly in Figure 5 of the drawing, the clip 31 is formed with cam surfaces 34 at opposite sides of the slot 32, and the upper end of the clip is fashioned with an anvil 35 adapted to be engaged by a hammer. The cam surfaces 34 are inclined laterally outwardly from the lower end of the clip, and are respectively engageable with the inner surface of the annular enlargement 30 at opposite sides of the rod 26. The width of the slot 32 is somewhat greater than the diameter of the rod 26 enabling the clip to be moved in a downward direction relative to the rod 26. As the clip is displaced downwardly relative to the rod 26, the enlargement 30 on the rod is engaged by the cam surfaces 34, and due to the angle of inclination of the cam surfaces, the latter cooperate with the enlargement 30 tending to displace the rod 26 in an outward direction. Inasmuch as the head 29 at the opposite end of the rod abuts the inner side of the sill form in the 30manner shown in Figure 1 of the drawing, it follows that the sill form is effectively clamped against the wall form 15 by the head 29 in response to downward movement of the clip 31 relative to the rod 26. The arrangement is also such that the sill form 22 may be readily removed by merely striking the lower ends of the clips 31 with a hammer or other tool to move the clips upwardly relative to their respective rods 26. The clips may then be removed from the rods by merely aligning the openings 33 in the lower ends of the clips with the enlargements 30 on the outer ends of the rods 26, in which position the clips are free to be slipped off of the rods 26. The rods 26 may then be withdrawn and the sill form removed from assembled relation with the wall form 15.

What we claim as our invention is:

1. A form for composition walls having a sill part, comprising a wall form adapted to form one side of the composition wall, a sill forming part positioned at the inner side of the wall form, means for removably securing the sill forming part to the wall form including a member extending through aligned openings in the wall form and said part, a head at the inner end of the member adapted to abut the inner side of said part, an enlargement on the outer end of the member of a size adapted to be extended through the openings aforesaid, a clip having an elongated slot therethrough of a width determined to slidably receive 60 the member and less than the enlargement, said clip also having an opening at one end of the slot of a size to freely receive the enlargement, and cam means on the clip engageable with the enlargement to clamp the sill forming part against 65 the wall form in response to movement of the clip

in a direction to locate the member within said

2. A form for composition walls having a sill part, comprising a wall form adapted to form one side of the composition wall and having an enlarged opening therethrough, a sill forming part positioned at the inner side of the wall form and having an enlarged opening therethrough registering with the opening in the wall form, means for removably securing the sill forming part to the wall form including a rod extending through the registering openings and having a head at the inner end adapted to abut the adjacent inner side of the sill forming part, an enlargement at the outer end of the rod of a size to pass freely through said openings to a position at the outer side of the wall form, a clip having an elongated slot therethrough of a width determined to slidably receive the rod and less than the corresponding dimension of the enlargement, said clip also having an opening at one end of the slot of a size greater than the enlargement and adapted to freely receive the enlargement, and means on the clip cooperating with the enlargement to draw the sill forming part tightly against the wall form in response to displacement of the clip in a direction transversely of the rod.

3. A form of composition walls having a sill part, comprising a wall form adapted to form one side of the composition wall and having an enlarged opening therethrough, a sill forming part positioned at the inner side of the wall form and having an enlarged opening therethrough registering with the opening in the wall form, means for removably securing the sill forming part to the wall form including a rod extending through the registering openings and having a head at the inner end adapted to abut the adjacent inner side of the sill forming part, an enlargement at the outer end of the rod of a size to pass freely through said openings to a position at the outer side of the wall form, a clip having an elongated slot therethrough of a width determined to slidably receive the rod and less than the corresponding dimension of the enlargement, said clip also having an opening at one end of the slot of a size greater than the enlargement and adapted to freely receive the enlargement, and cam surfaces on the clip at opposite sides of the slot and inclined in a direction to engage the enlargement and draw the sill forming part against the wall form in response to movement of the part in a direction transversely of the rod.

ARTIL ARRIGHINI. GEORGE A. VAN SICKLE.

#### REFERENCES CITED

The following references are of record in the file of this patent:

### UNITED STATES PATENTS

	· — · <del>-</del>
Number Name	Date
2,017,553 Troiel	Oct. 15, 1935
2,218,099 Schenk	Oct. 15, 1940

nil klimae i i Sima diden s

工程(新加州金属)。 1964年(1964年)

et e dest vétat d

Facultizer in explicit (\$5 kg) and the following