

March 29, 1949.

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2,465,871

FACED MONOLITHIC BUILDING WALL

Filed Dec. 3, 1946

3 Sheets-Sheet 1

Fig. 1.

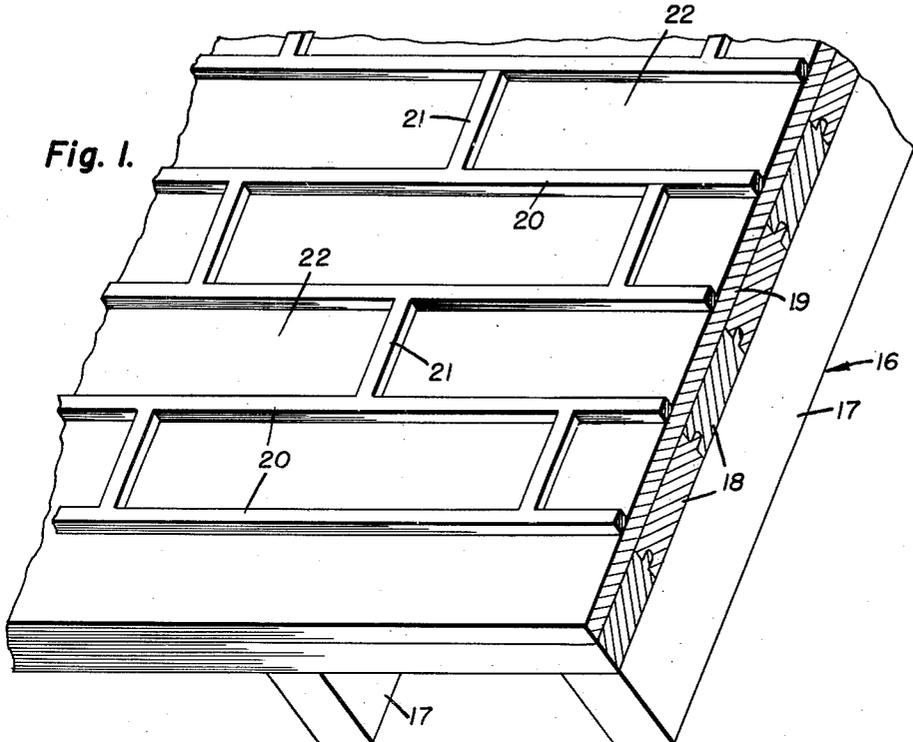
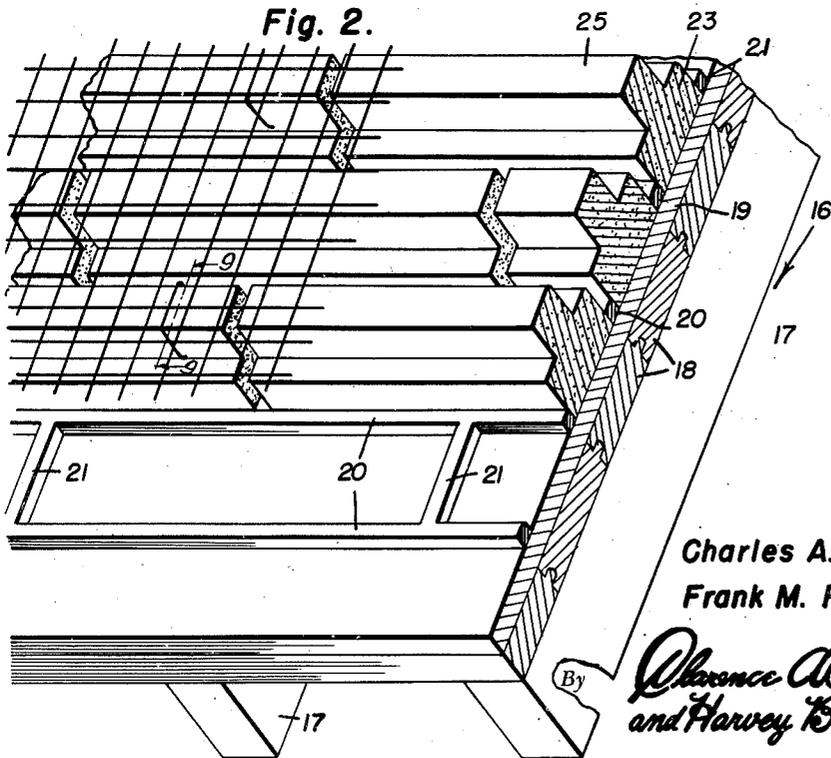


Fig. 2.



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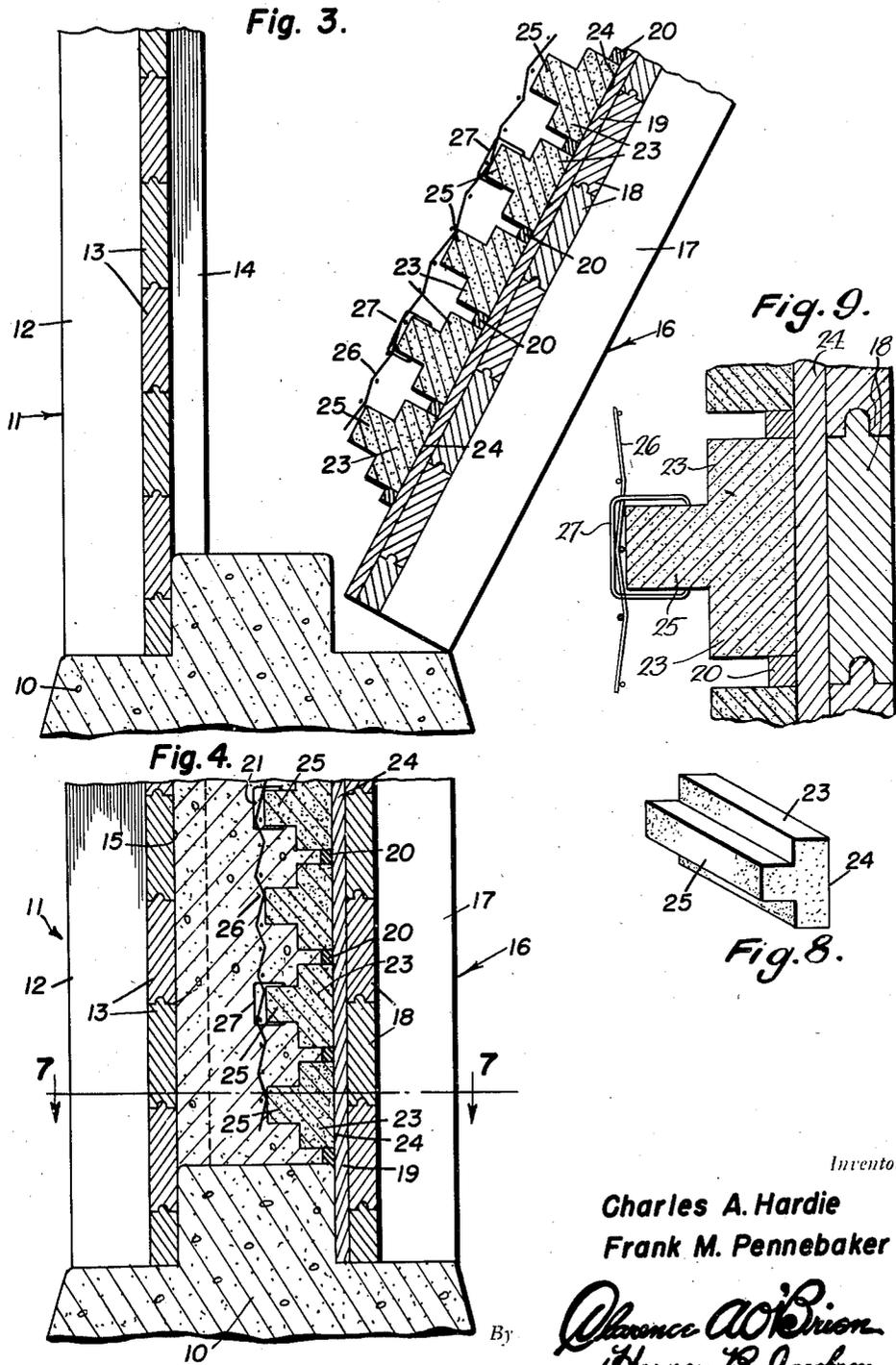
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3 Sheets-Sheet 2



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Fig. 5.

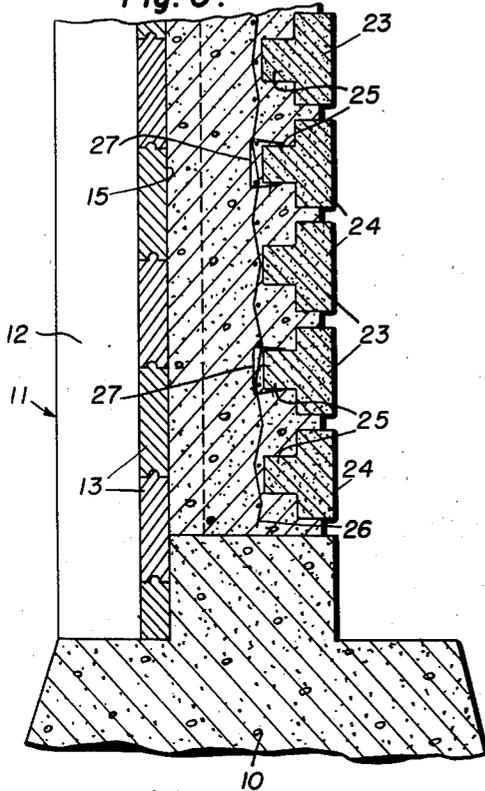


Fig. 6.

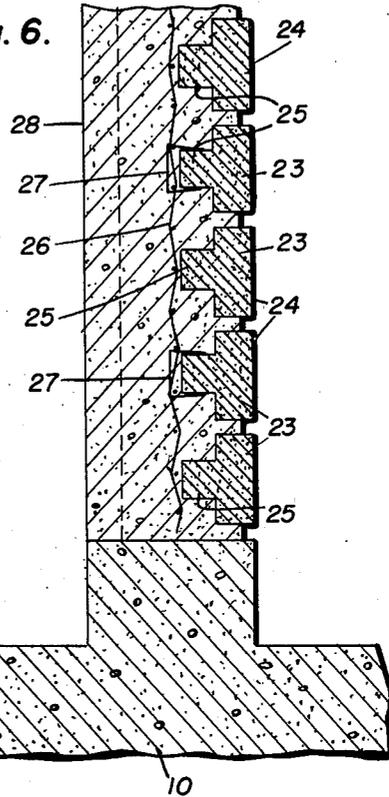
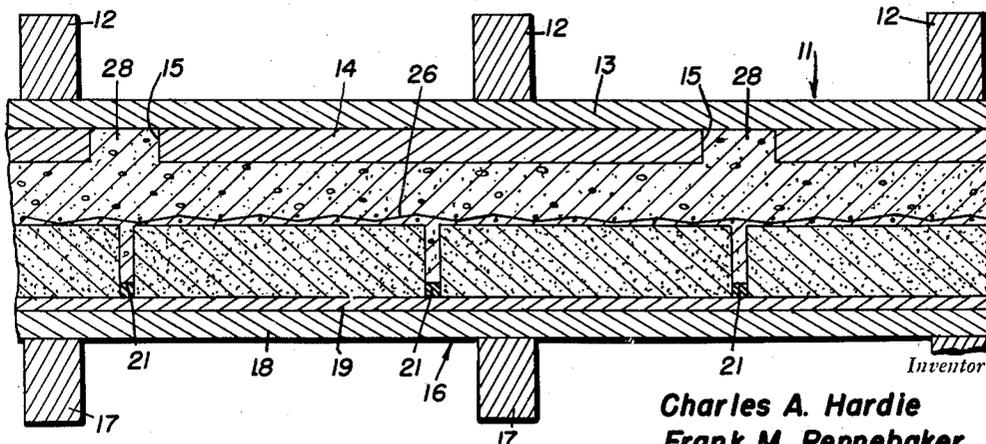


Fig. 7.



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FACED MONOLITHIC BUILDING WALL

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1 Claim. (Cl. 72—17)

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This invention relates to building construction and more particularly to the construction of a monolithic wall.

The primary object of the invention is to increase the rapidity of erection of buildings, walls and the like and to present the appearance of a conventional brick building in the completed structure.

Another object is to simplify the construction of a building and avoid the necessity of employing highly skilled labor in building construction.

A further object is to enable a building to be constructed by using only unskilled or semi-skilled labor, and hence effect economies in the erection of the building.

The above and other objects may be attained by employing this invention which embodies among its features erecting a vertical form, arranging on a platform adjacent the form a group of facing units, placing over the exposed faces of the facing units a reinforcing grid, moving as a unit the platform and facing units together with the grid into a vertical position in spaced parallel relation to the vertical form and pouring concrete aggregate into the space between the form and the facing units completely to embed the grid.

Other features include anchoring the grid to the facing units so as to hold the facing units in proper position during the moving of the platform and facing units into proper position with relation to the vertical form.

Still other features include a facing unit comprising an elongated rectangular body, a finish face on one side of the body and a longitudinally extending anchoring tongue integral with the body and projecting from the face of the body opposite the finish face midway between opposite side edges thereof.

Still other features include spaced parallel vertically extending pilasters on the face of the wall opposite the finished face.

In the drawings

Figure 1 is a perspective view of a platform embodying the features of this invention,

Figure 2 is a view similar to Figure 1 illustrating the facing units in place on the platform with a fragment of the reinforcing grid in position ready for movement of the platform into proper relation with the vertical wall form,

Figure 3 is a sectional view through a footing showing the vertical form in place and the platform about to be moved into proper relation to the vertical form,

Figure 4 is a view similar to Figure 3 showing

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the vertical form and platform in vertically spaced relation with the space between filled with concrete aggregate,

Figure 5 is a view similar to Figure 4 showing the platform removed with the vertical form still in place,

Figure 6 is a view similar to Figure 5 showing the vertical form removed,

Figure 7 is a horizontal sectional view taken substantially along the line 7—7 of Figure 4,

Figure 8 is a perspective view of one of the facing units, and

Figure 9 is an enlarged fragmentary sectional view taken substantially on the line 9—9 of Figure 2.

Referring to the drawings in detail a foundation or footing 10 has erected along one side edge thereof a vertical form designated generally 11. This vertical form comprises a plurality of spaced parallel uprights 12 to which are attached in any suitable manner planks 13 forming a wall against which the concrete aggregate is poured. Extending in vertically spaced relation from the face of the form 11 with which the concrete aggregate contacts is a plurality of vertically spaced fillers 14 forming at spaced intervals vertically extending recesses 15 the purpose of which will be more fully hereinafter explained.

A platform designated generally 16 comprises spaced parallel brace members 17 to which are attached planks 18 forming a sheathing, to the outer faces of which is secured in any suitable manner a facing sheath 19 carrying on its exposed face horizontally disposed spacing strips 20 between which extend spacing strips 21 which when the device is in cooperative relation with the form 11 extend vertically. These strips 20 and 21 cooperate to form rectangular recesses 22 into which the facing units to be more fully hereinafter described are received.

Each facing unit comprises an elongated rectangular body 23 (Fig. 8) formed with a finished face 24 and provided on the side opposite the finished face with a longitudinally extending tongue 25 which projects beyond the body midway between opposite side edges thereof.

In the construction of a wall the facing units are placed in the recesses 22 as illustrated in the drawings with the finished faces 24 resting against the member 19 and the tongues 25 projecting outwardly from the platform 16, it being understood that the platform is first placed either in a horizontal or inclined position as illustrated in Figures 1, 2 and 3. Having properly positioned the facing units in their respective recesses, a

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reinforcing grid 26 is placed over the exposed sides of the facing units and suitable clips 27 are arranged to hold the grid into contact with the facing units. It will be understood of course that the grid with which the clips 27 engage the facing units is sufficient to properly hold the entire group of facing units in place. Having thus arranged the facing units on the platform and secured them by the grid 26, the platform is elevated as suggested in Figure 3 on the foundation 10 into the position illustrated in Figure 4 and properly braced to hold the vertical form section 11 and the platform 16 in spaced parallel relation. Concrete aggregate is then introduced into the space between the vertical form section 11 and the platform 16 completely to fill the space and flow into the crevices formed between the spacing units by the spacers 20 and 21. In this way the reinforcing grid 26 and the clips 27 will be wholly enclosed in the concrete aggregate while the ribs 25 of the facing units will be embedded in the concrete aggregate. When the aggregate has become set, the vertical form 11 and the platform 16 may be removed leaving the facing units embedded in a monolithic wall to present the appearance of a brick structure. Due to the vertical spaces 15 of the vertical form 11 the wall thus formed will be provided with vertically extending pilasters 28 (Fig. 7) upon which the interior finish elements of the building may be supported.

From the foregoing it will be obvious that a wall will be constructed which on one face will resemble a brick wall and yet the facing units being embedded in the concrete aggregate of the wall proper will knit therewith and form a monolithic structure. Obviously the cracks or crevices formed between the facing units 23 may be subsequently pointed up to resemble the joints between the spaced brick of a brick wall, or if preferred they may of course be left open as initially formed. The monolithic structure thus produced is suitable for the walls of buildings and like structures and the employment of skilled labor to produce such a structure may be dispensed with, while the appearance and resemblance to a brick wall of ordinary construction is preserved. At the same time a wall constructed in accordance with this invention will exhibit greater strength than one laid up of separate building units such as brick or concrete blocks by reason of the fact that a reinforcing grid is embedded therein.

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While in the foregoing there has been shown and described the preferred embodiment of this invention it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

What is claimed is:

A building wall comprising a vertically disposed monolithic body poured from a plastic aggregate, a plurality of horizontally elongated, horizontally and vertically spaced facing units embedded in one vertical face of the body, a horizontal longitudinally extending anchoring tongue extending perpendicularly from the embedded face of each facing unit midway between the top and bottom edges thereof, each tongue being co-extensive in length with its respective facing unit, a reinforcing grid wholly embedded in the body in contact with the edges of the tongues remote from their respective facing units and U-shaped clips extending through the reinforcing grid and frictionally engaging the tongues for holding the grid in place during the pouring of the body.

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