May 19, 1925. 1,538,549

F. R. HAHN

BUILDING UNIT AND TIE FOR SAME

Filed Feb. 25, 1922 2 Sheets-Sheet 1

Fig. 1.

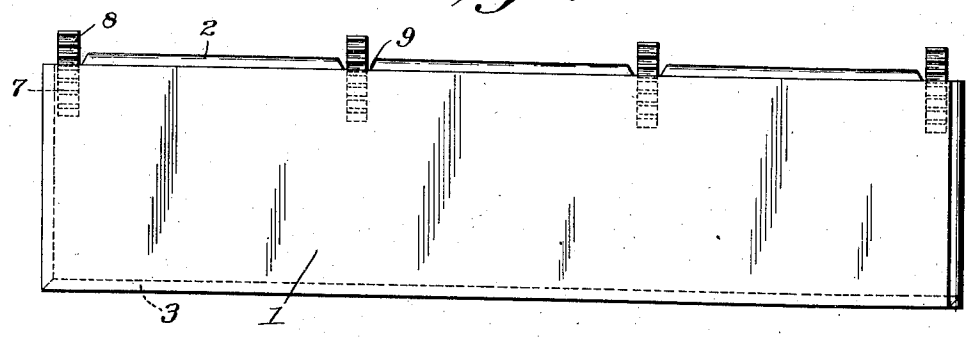


Fig. 2.

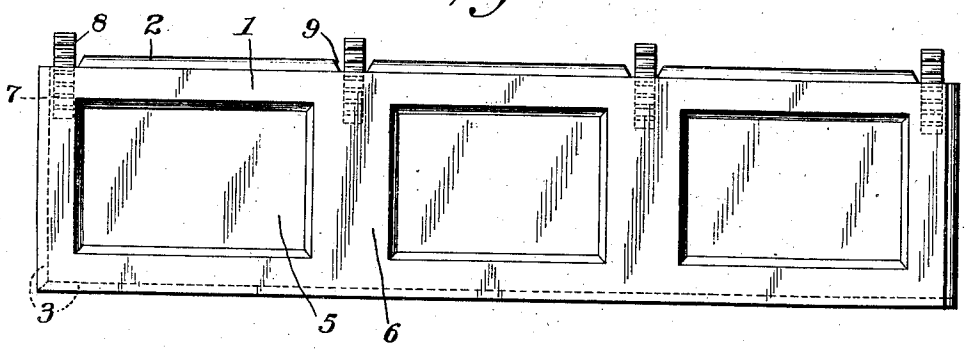


Fig. 5.

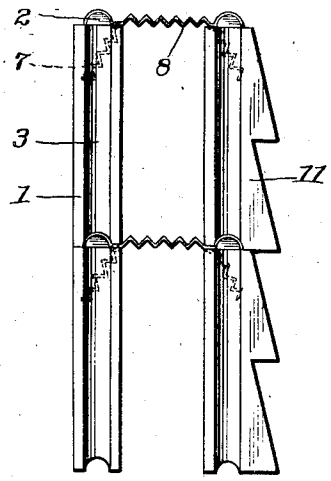
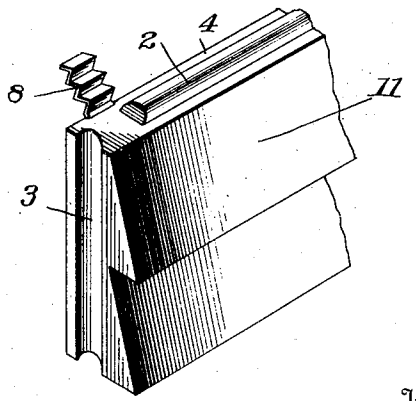


Fig. 4.



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Fig. 3.

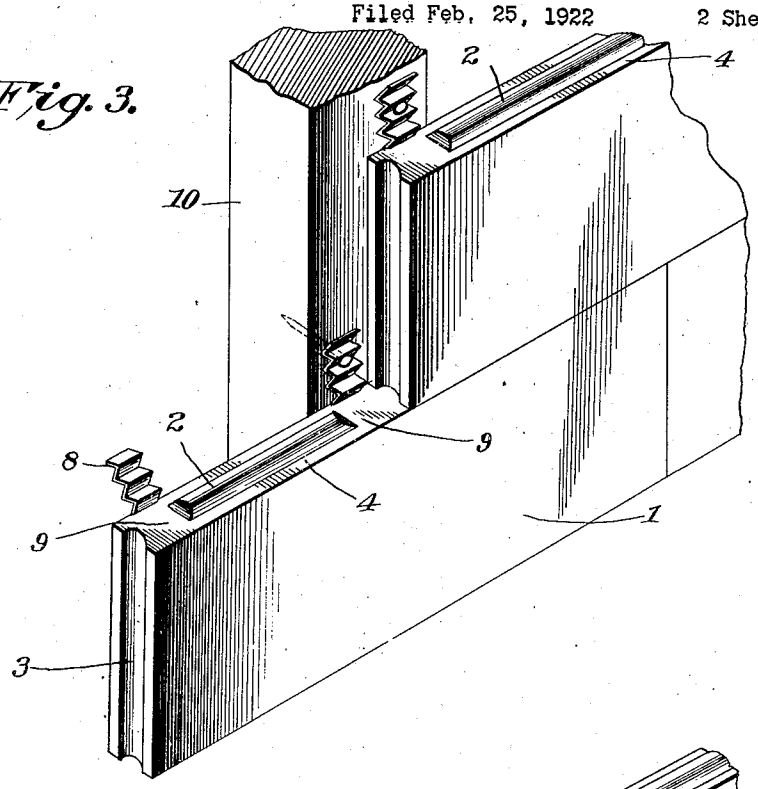
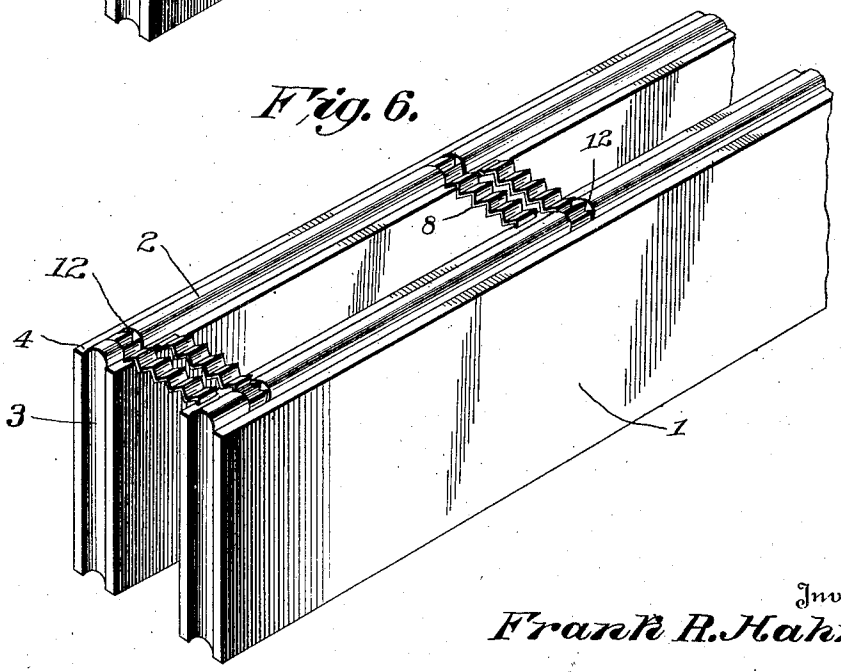


Fig. 6.



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Patented May 19, 1925. 1,538,549

UNITED STATES PATENT OFFICE.

FRANK R. HAHN, OF DECATUR, ILLINOIS.

BUILDING UNIT AND TIE FOR SAME.

Application filed February 25, 1922. Serial No. 539,274.

To all whom it may concern:

Be it known that I, FRANK R. HAHN, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented new and useful Improvements in Building Units and Ties for Same, of which the following is a specification.

This invention relates to improvements in building units and tying means for the same and the principal object is the provision of a cast building unit having a tying element cast therein which will serve as a means whereby the unit may be secured to studs or posts of a building construction in a single wall construction or whereby the opposed units of a double wall construction may be secured or tied together.

A further object of this invention is the provision of a building unit of plastic material having a tying means cast therein and projecting from the upper rear edge of the same, the tying means being strong and flexible to accommodate itself to various working conditions.

To the accomplishment of these and other objects which will be set forth hereafter, the invention consists in the construction, combination and arrangement of parts hereafter described and then defined in the claims, reference being had to the accompanaying drawings forming a part hereof and which show for the purpose of illustrative disclosure, preferred and other forms of my invention, it being expressly understood that changes may be made in practice without digressing from my inventive idea as defined in the claims.

In the drawings:

Fig. 1 represents a front view of a building unit constructed according to my invention.

Fig. 2 represents a rear view thereof.

Fig. 3 represents a perspective view of a wall construction utilizing a building unit embodying my invention.

Fig. 4 represents a perspective view of a unit of slightly different form.

Fig. 5 represents a view in end elevation of a double wall construction utilizing a building unit constructed according to my invention.

Fig. 6 represents a perspective view of a double wall construction utilizing building units constructed according to my invention.

Referring now to the drawings, the numeral 1 designates one form of building unit. This is preferably composed of plastic material and is of slab shape, being of general rectangular form and having tongues 2 formed on certain edges and grooves 3 on other edges whereby adjacent units will be interlocked when fitted together. It is to be noted that these tongues and grooves are preferably formed so as to leave the flat faces or shoulders 4 on each side thereof, though of course this is not essential. It is also to be noted, as shown in Figure 2 of the drawing that these units may be formed preferably on their rear face with a plurality of panels 5 separated by the parts 6 of the normal thickness of the units.

When these units 1 are formed, the tying elements 7 are embedded therein. As shown these tying elements are preferably formed of a strip of sheet metal corrugated laterally of itself, so as to be flexible and strong. They are preferably positioned at an angle and extend from near the front face of the unit through the top edge thereof leaving the free end portion 8, extending upwardly at an angle therefrom. The free end 8 of the tying element 7 preferably emerges from the top edge of the unit near the rear edge thereof, and, of course, being flexible may be bent readily in any desired direction. By this arrangement the tying elements do not interfere with the proper fitting together of the units.

When the units 1 are formed with the panels 5, the tying elements are embedded in the thicker portions 6 for purposes of additional security. It is to be noted that the tongue 2 may be cut away as at 9 for the purpose of exposing the tying element 7 and permitting access thereto by a hammer or other implement in installing. The thicker parts of the units might advantageously be placed in line with and against the studs or posts.

In the single wall construction as shown in Figure 3, the free ends of the tying elements are secured by nails, screws or other suitable means to the posts or studs 10, and if any slack remains therein, the weight of the unit above will take it up. The recesses left by the cut away parts 9 of the tongue 2 may be filled with suitable plastic material.

In the form shown in Figure 4, the building unit 11 is cast in molds so as to imitate the appearance of wooden siding and the

face thereof may be painted to increase the similarity of appearance.

So far this invention has been described only in connection with a single wall construction, but it is also applicable to and useful in a double wall construction, as shown in Figures 5 and 6. The same reference characters are of course used in these figures. The tying elements 7 are of sufficient length to extend across the wall and to rest on the other part thereof being held in place by the upper units. The tongues 2 may or may not be cut away to provide openings 12 to receive the ends of the tying elements whereby they are held in proper position while the wall is in the process of erection. Of course the overlapping or rather extending the tying elements from both parts of the wall to the other results in great security and stability.

While I have described the tying elements as being formed of corrugated sheet metal strips, it is to be understood that other material may be used and that these tying elements may be secured and used in other ways from those herein described.

What I claim is:

1. A building unit of plastic material having a tying element embedded therein and extending upwardly from the rear edge thereof, said tying element being formed of a strip of corrugated metal.

2. A building unit of plastic material having a tying element embedded therein and extending upwardly from the rear edge thereof, said tying element being formed of a strip of metal corrugated transversely thereof.

3. A building unit of general rectangular shape of plastic material and having a tongue formed on one edge and a groove formed on the other edge to interfit with adjacent units, a tying element embedded therein and extending upwardly from the edge having the tongue, part of the tongue being cut away to permit access to the tying element.

4. A building unit formed to provide a plurality of panels separated by parts of greater thickness, said building unit having a tongue formed on one edge and a groove formed on the other edge to interfit with adjacent units, a plurality of tying elements embedded in the thicker part of said units and having free ends extending from the upper rear edge thereof, said tying elements being formed of a strip of metal corrugated transversely of itself.

5. A double wall construction including building units arranged in opposed relation, each unit having a tongue on one edge and a corresponding groove on another edge, flexible tying elements embedded in each unit and having free ends extending from the upper edge of each unit, said tying elements extending from one part of the wall to the other, said tongues being cut away to provide openings to receive the free ends of the tying elements, the tying elements being held in place by the unit next above.

FRANK R. HAHN.