Aug. 18, 1942. B. G. DAHLBERG 2,293,331

WALL FACING

Filed June 17, 1939

Fig. 2.

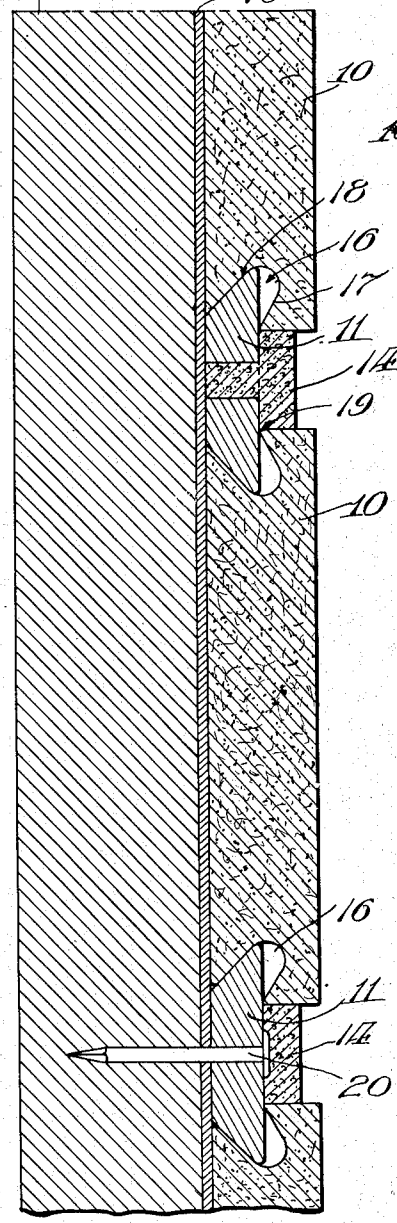



Fig. 1.

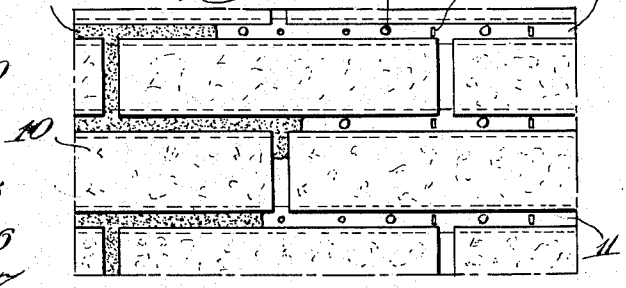



Fig. 3.

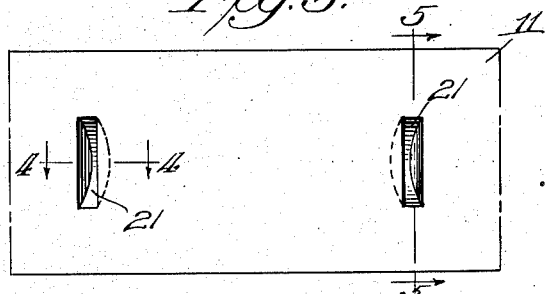



Fig. 4.

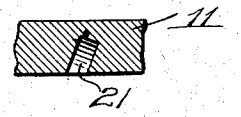



Fig. 5.

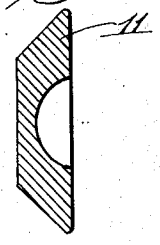



Fig. 6.

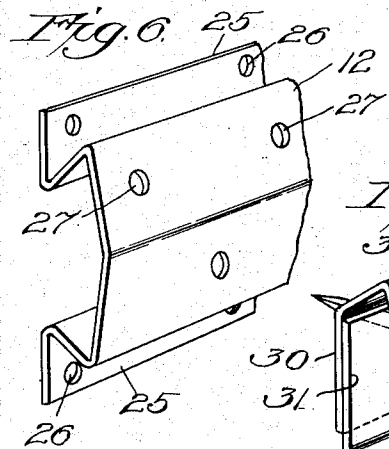



Fig. 7.

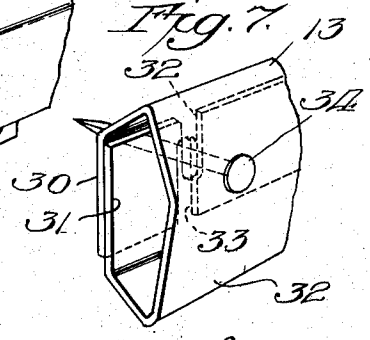
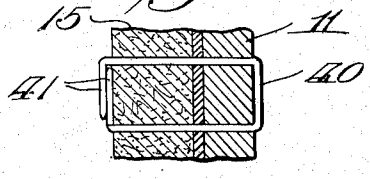



Fig. 8.




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Patented Aug. 18, 1942 2,293,331

# UNITED STATES PATENT OFFICE

2,293,331

## WALL FACING

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Application June 17, 1939, Serial No. 279,674

4 Claims. (Cl. 72—19)

This invention relates in particular to the construction of walls wherein there is provided a wall structure relatively light in weight, but which to all outward appearances comprises a solid brick wall. The construction of this invention is applicable not only in connection with original erection but may also be utilized in remodeling.

The wall construction constituting this invention provides a light-weight wall thus not requiring heavy foundations, or, if applied in remodeling the added weight is ordinarily not sufficient that additional supports are required for walls to which the wall facing comprising the invention may be applied.

The invention involves particularly the application of brick-like elements secured to the outer face of a wall structure whereby the visual appearance is that of a solid brick construction, but whereas actually the brick elements are but a fraction of the thickness of ordinary bricks, in fact being only about ½'' thick or about one-seventh or one-eighth the thickness of an ordinary brick.

The objects of the invention are the provision of a brick simulating wall construction which is light in weight, is readily applied either to old or new constructions, is firmly secured to the base structure to which it is applied and particularly in connection with which the pointing between individual brick units to simulate mortar joints such is firmly secured and anchored in place. Other and further objects of the invention will become apparent on reading the following specification when taken in connection with the accompanying drawing:

In the drawing:

Figure 1 is a small scale elevation illustrating the application of the invention, a part thereof being shown as finished, the remainder being illustrated as still to be pointed up;

Figure 2 is an enlarged section of the construction shown in Figure 1;

Figure 3 is an enlarged top plan view of the brick unit securing strip;

Figure 4 is a section taken on the line 4—4 of Figure 3;

Figure 5 is a section taken on the line 5—5 of Figure 3;

Figure 6 is an enlarged perspective view of a modified form of the brick unit securing strip;

Figure 7 is an enlarged perspective view of a further modified form of the brick unit securing strip; and

Figure 8 is a section showing a modified form of the attachment of the brick unit securing strip to the base member.

In the drawing the brick units or elements are designated by the numeral 10 and the brick unit securing strips are designated by the numeral 11, the modification of this strip appearing in Figure 6 being designated by numeral 12 and the modification shown in Figure 7 designated by the numeral 13. The plastic or pointing applied between the spaced brick units in order that mortar joints may be simulated is designated by the numeral 14.

The base on which the facing construction is erected is designated by numeral 15 and it is to be understood that this base may comprise either a newly constructed base member to which the facing is applied or that the base member 15 may be an old construction, as for example, the wall of an already constructed building.

In applying the brick simulating facing of the invention to a base such as 15, it is preferable that there first be applied over the base or backing 15 a sheet of asphalt saturated felt indicated at 16, which asphalt saturated felt serves as a waterproofing course interposed between the base or backing 15 and the applied brick simulating facing units 10.

The next step in the application of the brick simulating facing 10 to the base or backing 15 is the application to the face of the base 15 and over the waterproof sheets 16 of spaced mounting strips 11 of general trapezoidal form appropriately secured, as for example, by nails 20.

The thin brick units or elements 10, it will be seen, are provided along their longitudinal edges with recesses which with respect to the back of such units and a longitudinal edge thereof are respectively upwardly and inwardly inclined, these recesses being indicated by numeral 16. The recesses 16 extend, with respect to the juncture of the back and a longitudinal edge of unit 10, upwards and inwardly at an angle of approximately 45° with the spaced walls 17 and 18 of the recesses having a slightly inward convergance whereby the molding of such a slot is facilitated. The side walls 17 and 18 of the recess 16 are preferably joined by an arcuate wall which completes the recess.

It is to be noted that due to the construction of the recess 16 that there is formed at the juncture of the side walls 17 of recess 16 and longitudinal edge of the unit 10, a line juncture 19, the advantage of which will hereinafter become apparent.

In applying the unit securing strips 11 to the backing or base 15, they are ordinarily applied horizontally and parallel, spaced on centers such that an individual brick unit 10 will fit snugly between adjacent securing strips 11.

It will be readily understood that when two properly spaced securing strips 11 have been secured to the base or backing 15 that individual brick units 10 may be entered between the such strips at the ends thereof and slid along between this pair of strips 11 to the final position which the brick unit is to occupy on the finished structure. It is also to be understood that after one brick unit 10 has been entered between a pair of spaced securing strips 11 that other units 10 may be fed in between this pair of strips to fill the space between the strips, and that on any wall to which the application is being made additional properly spaced strips 11 may be applied and brick units 10 likewise inserted between such pairs of strips 11 until the entire surface of the wall has been covered. Still further it is to be understood that the securing strips 11 need not be applied horizontally, but that if desired they may be applied on a slant or vertically provided, however, that adjacent pairs of strips 11 shall be parallel and the strips shall be uniformly spaced, excepting, that if desired brick units 10 of different widths may be used in different courses, in which case the securing strips 11 between which the units 10 are mounted shall be appropriately spaced to receive the brick units 10 of the width other than standard. In applying the facing to a base or backing 15, the securing strips 11 may be applied to the entire facing and all of the brick units 10 may be inserted between the strips but if the construction proceeds in this manner there must be left in each row horizontal sufficiently unfilled space so that adjacent brick units 10 may be spaced approximately 3/8" so that a uniform pattern of mortar joint simulation may be applied.

After the brick units 10 have been erected on the face of the base or the backing 15 in accordance with the foregoing, the horizontal and vertical spaces between adjacent brick units 10 should be appropriately pointed with a mortar joint simulating material which preferably will comprise an approved caulking compound, although it is within the scope hereof the open joints between adjacent brick units 10 may be pointed up with any substance which will satisfactorily simulate the desired mortar and also it will be understood that in pointing up the spaces between adjacent brick units 10 these spaces can be completely filled up flush with the surface of the brick units 10, or these spaces may be filled only partially in depth so that the surface simulated mortar joint is slightly depressed with respect to the outer faces of the brick units 10.

In order that the caulking compound or mortar joint simulating material indicated at 14 may be firmly secured in the space between adjacent brick units 10, particularly with respect to the horizontal joints, it is preferred that the securing strips 11 be provided with keying openings such as 21, which keying openings may be of any suitable form for receiving appropriate keying portions of the pointing substance 14. In Figure 1, certain of the keying openings 21 are indicated as circular, whereas others are indicated as slots which forms are readily apparent on viewing the figure of the drawing.

The securing strip 11 illustrated in Figures 2, 3, 4 and 5 of the drawing may be formed of wood or any suitable substitute therefor, for example, this strip may be formed from what is known as fiber insulation board thoroughly impregnated, either before or after the strip 11 is cut to form, with some hardening and solidifying substance such as asphalt, a synthetic resin or other equivalent saturant.

Keying openings 21 provided in the securing strips 11 may, if circular, be formed by drilling or by punching and particularly if the material of the securing strip 11 can be punched, the shape of the keying opening 21 may be alternatively triangular or such other shape as may be determined by the shape by the punch used for punching the openings in the strip.

A very satisfactory keying recess 21 and one which very definitely keys the pointing substance 14 to the securing strip 11 is illustrated in detail in Figures 3, 4 and 5 wherein from an inspection of the drawing it is readily apparent that adjacent pairs of keying recesses 21 are inclined one toward the other that a definite wedge keying action is obtained. It will also be seen that these keying recesses 21 have been formed as by cutting with a small rotary cutter suitably inclined and sunk into the securing strip 11 to a depth slightly less half of the diameter of the cutter used.

As an alternate of the wood or other fibrous securing strip 11 as above described there may be employed a formed metal securing strip 12 shown in Figure 6, which securing strip 12 is formed from a strip of suitable metal folded with flanges 25 having suitable perforations 26 therein through which nails or other suitable securing means may pass for securing strip 12 to the base or backing 15. The flanges 25 of the strip 12 are folded outwardly from the formed securing strip which is suitably formed to a substantially trapezoidal section to correspond in form to the wood or fiber securing strip 11. In this sheet metal securing strip 12 there are in the upper face thereof provided perforations 27, which serve the function of keying the pointing substance into the joint spaces between adjacent brick units 10 in the same manner that the previously described keying openings 21 in securing strips 11 serve this function.

A still further modification of the securing strip 11 and for many purposes the preferred form thereof, is indicated at 13, Figure 7. This securing strip 13 is formed of a strip of suitable metal which is folded into substantially trapezoidal form but with the edge portions 30 and 31 overlapping as is clearly apparent and in addition the broader face 32 of this sheet metal strip is slightly arched or bowed as is clearly apparent on inspection of Figure 7 of the drawing. The edge portions of the strip of metal which is formed into securing strip 13 are provided with registering and overlapping slots 32 and 33 whereby a nail 34 entered through a suitably provided opening in facing 32 of strip 13 may pass through these slots 32 and 33 and serve to secure strip 13 to the base or backing 15.

With respect to the securing strip 13 it will be seen that when this is applied to the base or backing 15 with securing nails 34 driven up just sufficiently to hold the strip against the face of the base 15 that subsequently after the brick units 10 have been inserted between adjacent pairs of such strips 13 that then the nails 34 may be driven somewhat more firmly into place as with a nail set or the like. This due to the arch form of the face 32 of the strip 13 as nail 34

is driven in will tend to flatten out facing 32 to a plane surface with a consequent widening of the overall width of the strip 13 which is possible because of the slots 32 and 33 in the overlapping portions 30 and 31 of strip 13. Expansion of or widening of the strip 13 in the manner just described, it will be readily understood, serves to tightly wedge between adjacent pairs of strips 13 the bricks 10 which have been previously inserted therebetween, that is, the use of an expansible securing strip 13 provides for adjustment of any slight error made in spacing of the strips 13 or the application thereof to the backing member 15.

The expansible securing strip 13 just above described may be provided in its top surface with keying openings similar to or equivalent to the keying openings at 27 provided in securing strip 13 of Figure 6.

In connection with the above construction, the brick units 10 may be of substantially the dimensions of a side face of an ordinary brick and of a thickness of approximately ½", or if desired, may be of any suitable width, length and thickness providing, of course, that such are kept within reason, as for example, not so thin that it is impractical to provide a slot 16 in the edges of the bricks 10, nor so thick or of such width and length dimensions that the weight of the unit is excessive. While it is contemplated that the construction described will utilize burnt clay brick members 10 to provide a finish appearance corresponding to that of a solid brick construction, it will be understood that the units 10 may be composed of any suitable material from which these units may be molded or cut and that if the units are to be exposed the material should be such as will stand exposure, whereas, if the units are not to be exposed materials therefore which would otherwise be unsuitable, may be utilized, as for example for interior work, the unit 10 may be molded from gypsum.

While, as above stated, a plastic caulking compound suitably colored is preferred for pointing the joint spaces between adjacent brick units 10, as for example a readily available plastic and non-hardening caulking compound having as the base thereof paint skins, it will be readily apparent that the joints between adjacent units may be pointed up using mortar prepared from sand and lime or sand and cement or other suitable cementitious substance, such being practical particularly due to the fact that in the shallow joint over the securing strips 11 the such pointing substance will be keyed into the joint by the keys provided in the securing strips 11, 12 and 13 as has been previously described in detail.

Whereas, in connection with the above description of the invention it has been assumed that the base or backing material 15 is lumber or other material into which nails may be driven and in which nails will hold, the application may alternatively be made to a base or backing 15 of manufactured fiber board readily available under the descriptive name of cane fiber insulation board. Cane fiber insulation board and generally similar wood fiber insulation board, while they will receive the nails for attaching the securing strips 11 do not generally have sufficient body to satisfactorily retain such nails and in connection with the application of a securing strip 11 to such a backing material, the attachment may be made by wire staple 40 or the equivalent which is forced through the securing strip 11 and the fiber insulating backing 15 and which has the terminal portions 41 of its legs clinched at the back of the fiber insulating board backing 15 for secure attachment of securing strip 11 to the fiber insulating board backing 15.

The invention hereof having been disclosed and described in detail, I claim:

1. In a wall facing construction having a plurality of facing elements, a mounting strip for affixing the facing elements in the wall construction, the mounting strip formed of sheet material arranged in the form of a trapezoid having of its parallel sides, its wider side bowed outwardly and its narrower side formed by the edges of the sheet material in overlapping relation, and the overlapping portions having therein elongated registering slots.

2. As an article of manufacture, a deformable metallic securing strip adapted for securing brick simulating elements in a wall construction comprising a plurality of spaced brick simulating elements, each of said elements having a groove on an edge thereof, and said securing strip formed from sheet material and shaped substantially in the form of a trapezoid having its wider side bowed outwardly and its narrower side formed by the edges of the sheet material in overlapping relation, and said outwardly side adapted to form a weather seal at the lines of contact of the contiguous grooves of the brick simulating units forming contiguous courses.

3. A wall construction comprising in combination, a backing, elongated unit mounting and securing strips composed of sheet material shaped to the form of a trapezoid mounted thereon, the facing units secured thereagainst by the mounting and securing strips, the mounting and securing strips being deformable and having a face thereof comprising opposite edge portions of said sheet form material formed in overlapping relationship, said securing strips spacing the individual facing units and having keying openings therein, and the spaces between adjacent facing units having applied therein a mortar joint simulating substance keyed to the mounting strips and anchored thereto and between contiguous facing units by portions thereof extending into the keying openings.

4. In a wall construction comprising a plurality of brick simulating elements applied in courses, each of said elements having a groove formed on an edge thereof, the combination of a deformable securing strip in the form of a trapezoid having two opposite substantially parallel sides and having the two non-parallel sides complementally formed with respect to the aforesaid groove and mounted between the courses and securing contiguous courses of the elements in place in co-action with the contiguous grooves in said elements, the deformable securing strip being of tubular form sheet material, opposite edge portions of said sheet overlapping and forming one of said parallel sides of said tubular securing strip and the overlapping portions having therein elongated registering slots receiving securing means.

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