Dec. 24, 1940. W. G. SULLIVAN ET AL 2,226,265

SIDING UNIT AND ASSEMBLY

Filed July 7, 1936

Fig. 1.

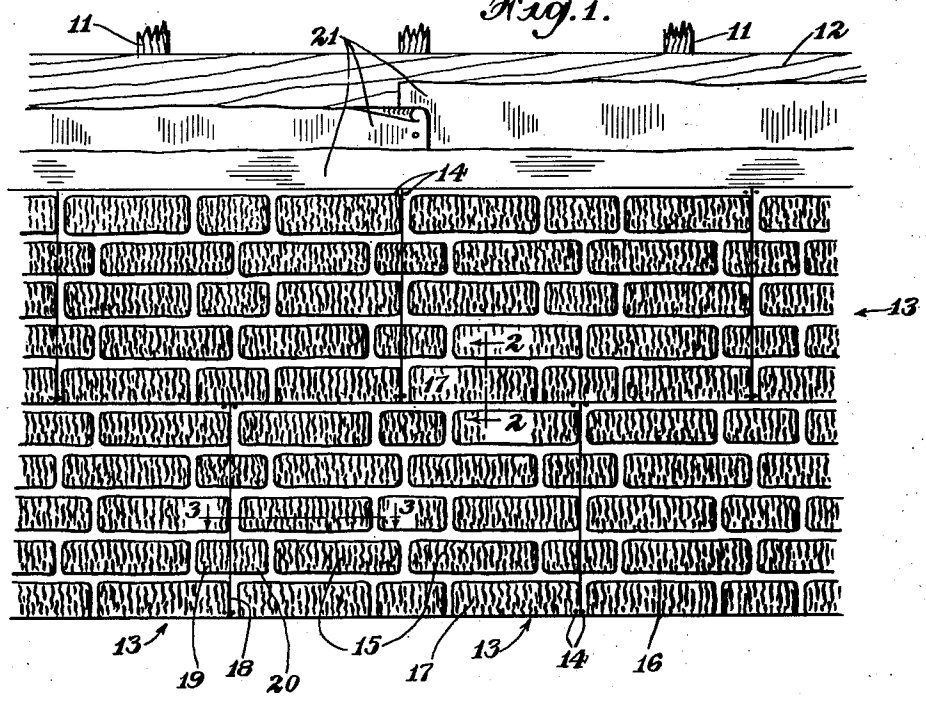


Fig. 2.

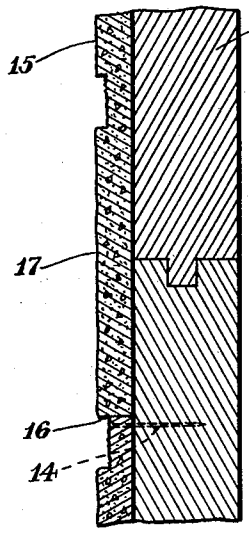
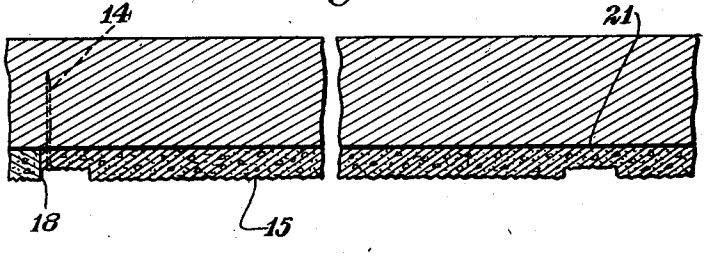


Fig. 3.



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SIDING UNIT AND ASSEMBLY

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5 Claims. (Cl. 20—5)

This invention relates to a siding unit and assembly for a building wall. It relates, particularly, to so called brick siding units.

Such brick siding units are sheets having thereon projecting (raised) elements or irregularities of surface resembling portions of bricks that are exposed in a conventional brick wall and defining depressions that correspond to the mortar joints between bricks. Suitably but not necessarily, the motar joints are colored differently from the projecting elements. Thus, the said elements may be brick red and the base material, at the positions corresponding to mortar joints, may be gray or nearly white in color.

In making siding assemblies of these units, there has been difficulty heretofore in connection with the joints between adjacent ones of the units. In the first place, these joints have no corresponding counterpart in a usual brick wall that the siding assembly is intended to simulate, and hence, they are objectionable from the standpoint of appearance. Also, the joints provide positions for possible leakage of rain through the wall.

It is an object of the invention to overcome or reduce to a minimum objections to such brick siding units and the assembly thereof. Other objects and advantages of the invention will appear from the detailed description that follows.

The invention comprises the novel features of the units and assembly herein described, particularly brick siding units having the edges thereof so disposed in relation to the brick-like projections as to be shaded thereby and thus made relatively inconspicuous. In one embodiment, the invention comprises the arrangement of the joints between adjacent units, so that the joint, at some positions, extends through material that is provided with ridges extending generally in the direction of the joint at those positions. The invention comprises, also, the use of fastening means, such as nails, for holding the siding units to studs, the position of nailing being immediately below and in the shadow of projecting elements.

The invention is illustrated in the attached drawing and will be described, for the purpose of exemplification, in connection therewith.

Fig. 1 shows a face view of a building wall assembled in accordance with the present invention, partly broken away and partly diagrammatic, for clearness of illustration.

Fig. 2 shows a cross sectional view on line 2—2 of Fig. 1.

Fig. 3 shows a similar view on line 3—3 of Fig. 1.

The wall includes a vertically extending supporting substructure having studs 11 and wood sheathing 12 or the like secured thereto.

Disposed over the substructure and forming the exterior of the wall of the building are the siding units 13. These are secured to the substructure by fastening means, such as the headed members or nails 14.

Preferably a resiliently yieldable, water-shedding sheathing 21, say of asphalt-impregnated felt of the type of prepared roofing or the like is disposed between the siding units and the wood sheathing 12.

Each of the siding units 13 includes a plurality of courses of projecting elements 15 resembling the exposed portions of bricks in a wall.

In Fig. 1 the joints between certain units are purposely enlarged, in proportion to the scale of the rest of the drawing, in order to make the illustration more clear.

It will be noted that the units arranged in a vertical wall define therebetween both horizontal and vertical joints.

It will be noted, also, that the lower edge 16 of a unit, over the major portion of its length, lies approximately in the plane of the horizontal edge of one of the elements of the lowest course 17 of the said elements. As a result, the joint between this edge and the upper edge of an underlying unit falls well within the shadow of the overlying element, so that the conspicuousness of the joint line is thereby minimized. Furthermore, the overhanging element minimizes the entrance into the joint of water flowing down the wall.

Likewise, the vertical edge 18 of the unit, over a substantial part of its length, except where it crosses the mortar joint or one of the elements 17, lies approximately in the plane of the vertical edge of one of the said elements. When an adjacent unit is abutted against this vertical edge, there is again a shadow effect upon the joint line, in this case the vertical joint.

To reduce further the conspicuousness of the joint lines, projecting elements 19 on one side of a joint may be continuous each with a similar element 20 on the opposite side of the joint, to form thus a composite or divided element resembling the exposed portion of a single brick. Furthermore, this composite element may be provided with ridges in simulation of a wire-cut brick, the ridges, as shown, extending generally in a direction approximately parallel to the di-

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rection of the line of division, the irregularity thus introduced obscuring, in part, the irregularity necessitated by the joint. Also, the ridges define therebetween depressions within one of which the joint line may extend. In other words, the ridges constitute substantially parallel bars, one of the bars in the half-bricks being in line with the simulated mortar joint thereabove and therebelow.

To obscure further the artificiality of the brick siding assembly described, the nails 14 may have their heads immediately below the horizontally extending lower edge of one of the elements 17, as illustrated, so that the head is thus shaded by the said element.

Various compositions or methods of making the improved siding unit may be used.

Thus, there may be used a composition including Portland cement and asbestos fibres distributed therethroughout. Compositions including calcium aluminate cement and reenforcing fibres may also be used.

In a typical preparation we have made a dilute aqueous suspension of approximately equal parts by weight of Portland cement and moderately short chrysotile asbestos fibres such as are commonly used in the making of asbestos-cement shingles. From this suspension there was formed a thin felt on a moving fabric belt, the felt transferred continuously to a rotating mandrel, and the felt there wound upon itself and against the pressure of an overriding roller, until a cylinder of wall thickness greater than desired in the siding unit was composited.

This cylinder was then cut lengthwise, removed from the mandrel, and roughly flattened. The flattened sheet was cut to approximate size desired and strongly compressed against a die plate bearing thereon the negative of the irregularities desired in the finished siding unit. During this compression, some of the excess water is expressed and the composition is densified.

After the compressed sheet had taken its initial set, the embossing or die plate was removed therefrom and the unit then allowed to stand until the cement therein was thoroughly hardened. The sheet was then trimmed to exact size desired and perforated to receive the fastening members 14.

An assembly of the units, as described, gives a pleasing brick-like appearance to a wall. Furthermore, the assembly is very light in weight and relatively inexpensive, as compared with a brick wall.

It will be understood that the particular shape of the raised portions may be varied, as, for instance, to make them resemble in appearance portions of stone or other natural product projecting outwardly from the plane of the surrounding mortar joints. The term "bricks" is used herein to include such other shapes.

The details given are for the purpose of illustration, not restriction, and variations within the spirit of the invention are intended to be included in the scope of the appended claims.

What we claim is:

1. A shingle of the character described, consisting of a rectangular body with one surface shaped to simulate several horizontal rows of brick elements in staggered relation, one end edge of the shingle co-inciding with the end plane of the ends of whole bricks, the other end edge of the shingle being provided with a mortar strip at the ends of whole bricks to be butted against the ends of whole bricks of an adjoining shingle when placed in position, the intermediate half-bricks between the whole bricks at the mortar end of the shingle being formed to embody a vertical bar in line with the mortar strip to create an optical illusion of a break in the vertical mortar strip, thereby to camouflage the meeting line between two adjoining shingles.

2. A shingle consisting of a rectangular body having at least two vertically spaced horizontal rows of whole-brick-simulating elements, and an intermediate row of brick elements with the row terminating in a half-brick element at each end of the row at each end of the shingle, a mortar strip at the end of each whole brick in each row at one end of the shingle, and a group of parallel vertical bars in the face of each half-brick at each end of the shingle, one of the bars being in line with the mortar strip at the end of a whole brick.

3. A shingle as in claim 2, in which the bars in the half-bricks between the mortar strips, are so arranged that one bar is directly in line with the mortar strips above and below each half-brick.

4. A shingle for wall covering to simulate a brick wall, and consisting of a plurality of superposed rows of brick-simulating elements separated by mortar strips, with certain end elements of the size and shape of part-brick to butt against part-bricks on an adjacent shingle, the face portion of the part-bricks shaped by bars and indentations parallel to the edge of the shingle to simulate wire-cut brick, one bar on the face of the part-bricks being in line with mortar strips at the end of a whole brick.

5. A shingle consisting of a rectangular body, with a face to present the appearance of several rows of bricks in staggered relation, the brick being separated by mortar strips, a half-brick at the ends of one or more rows, at least a portion of the face surface of such half-bricks being shaped by bars and lines to appear wire-cut, and a bar on the half-bricks adjacent one edge of the shingle in line with mortar strips at the end of a whole brick, thereby to camouflage the meeting lines between two adjoining shingles.

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