Dec. 11, 1962 R. M. GAINES 3,067,545

ARTIFICIAL SIDING FOR FRAME BUILDINGS

Filed Dec. 12, 1957 4 Sheets-Sheet 1

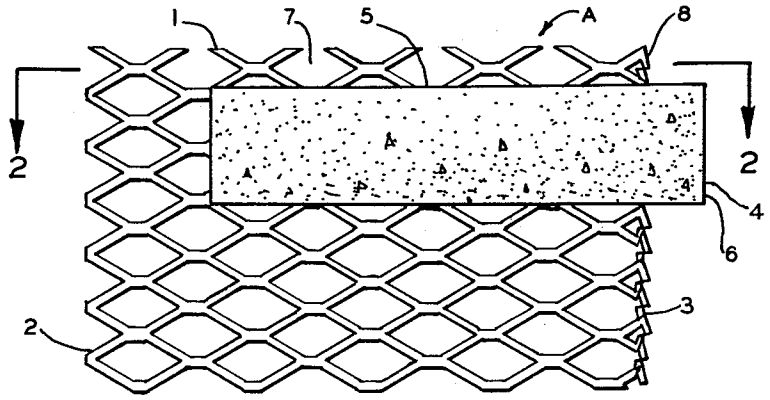


FIG. 1

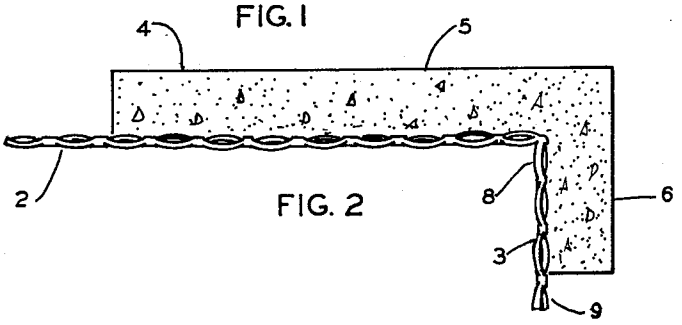


FIG. 2

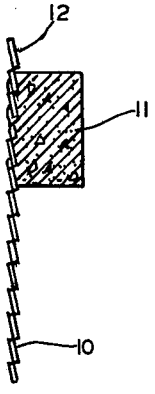


FIG. 4

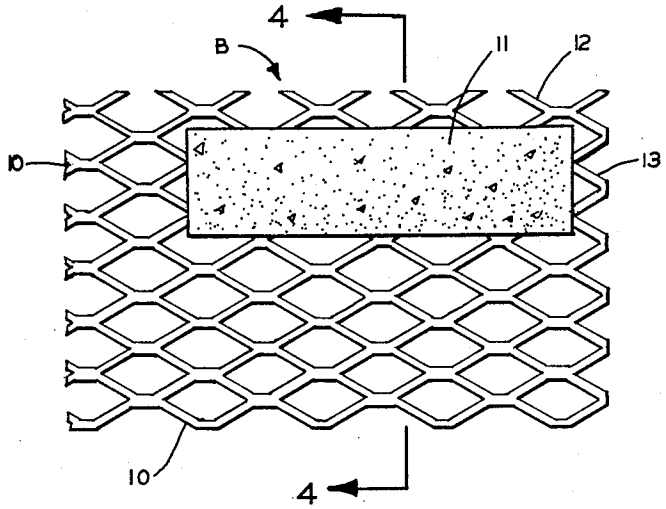


FIG. 3

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ARTIFICIAL SIDING FOR FRAME BUILDINGS

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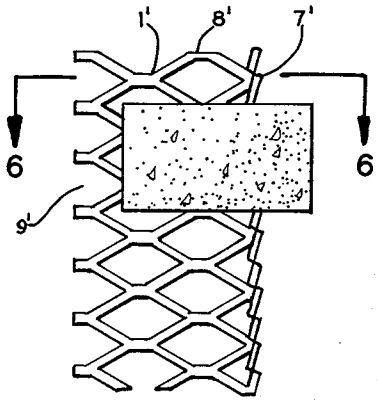


FIG. 5

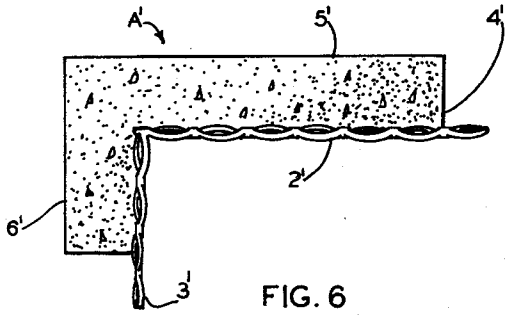


FIG. 6

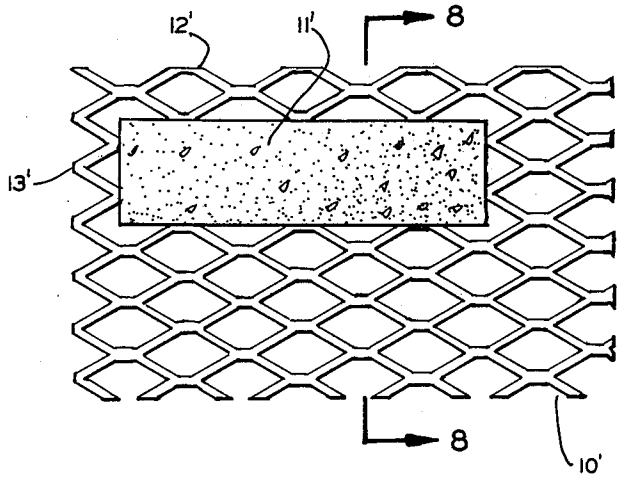


FIG. 7

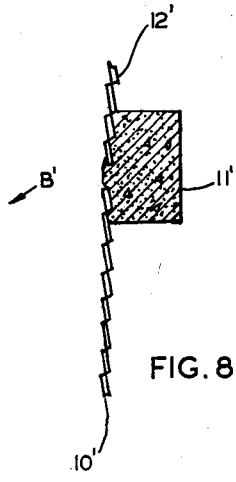


FIG. 8

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ARTIFICIAL SIDING FOR FRAME BUILDINGS

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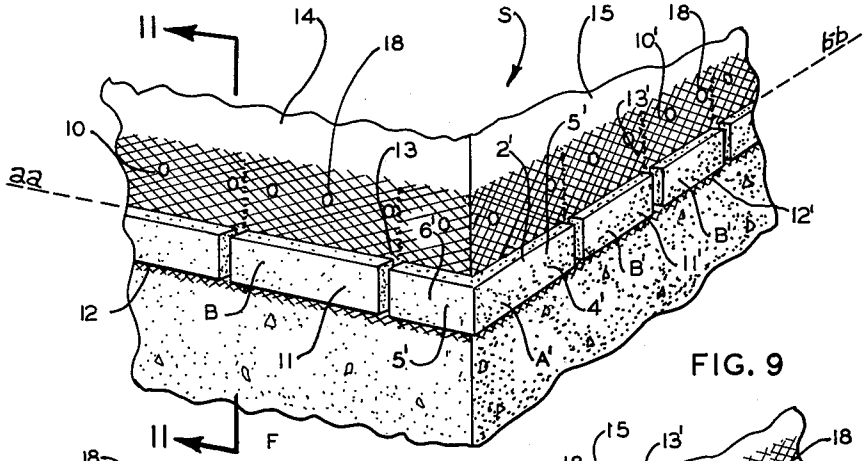


FIG. 9

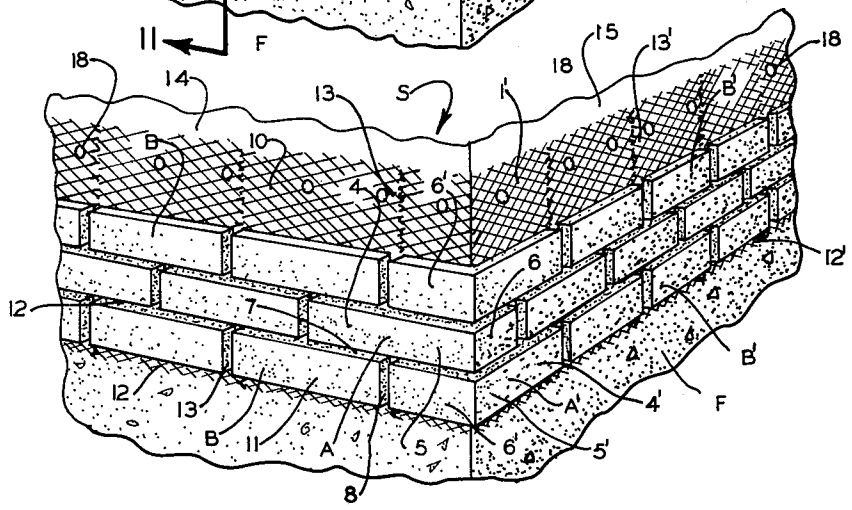


FIG. 10

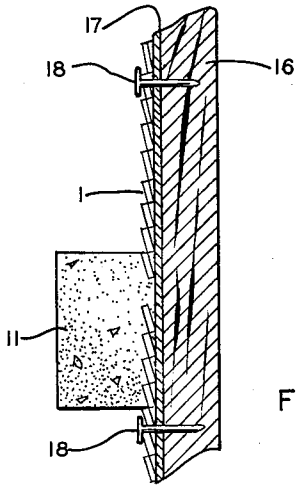


FIG. 11

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ARTIFICIAL SIDING FOR FRAME BUILDINGS

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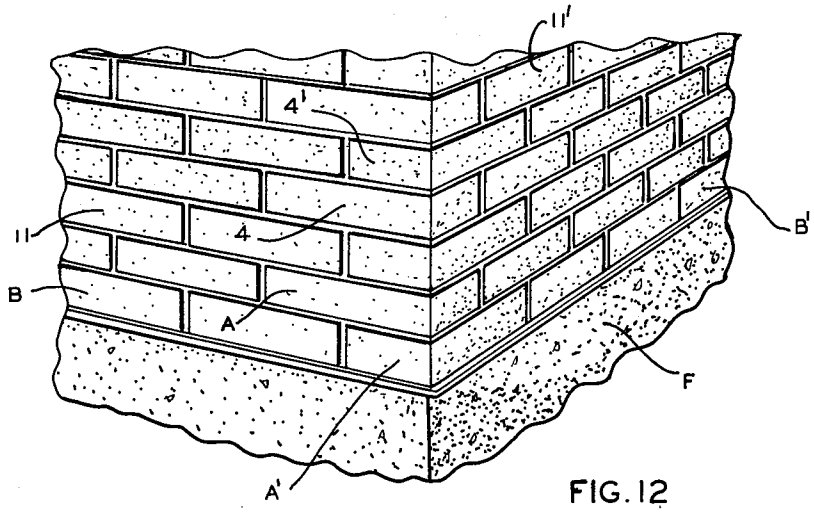


FIG. 12

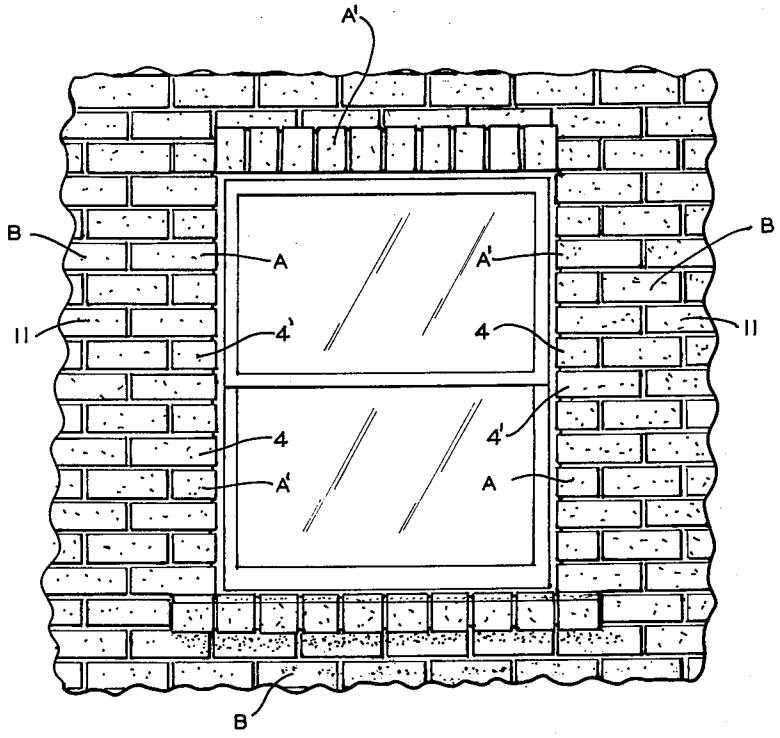


FIG. 13

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3,067,545

ARTIFICIAL SIDING FOR FRAME BUILDINGS

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Filed Dec. 12, 1957, Ser. No. 702,379
4 Claims. (Cl. 50—182)

This invention relates in general to certain new and useful improvements in artificial siding for frame buildings and the like.

At the present time, frame buildings, concrete-block buildings, and similar structures are modernized or repaired by applying shingles of asbestos or asphalt. Various processes and techniques have also been developed for applying to such structures plastic finishes, as, for instance, wet mixtures of cement and sand which are applied like plaster or stucco and tooled to achieve a desired exterior surface. Another form of siding used for modernizing frame buildings consists of a series of panels, the exterior surface of which has imprinted thereon a simulated brick design, but this type of siding does not afford any significant amount of structural reinforcement or weather tightness to the building. All of these various procedures, however, are time-consuming and comparatively costly. Furthermore, such procedures usually weaken rather than reinforce the structure by adding dead-load weight without contributing to the load-carrying elements of the building. Consequently, the improvement becomes a rather short-lived beneficiation of the facade or outward appearance.

It is, therefore, one of the objects of the present invention to provide an artificial siding for frame buildings and the like which is efficient and economical to apply to the exterior of the building surface, and which will give a simulated appearance of a brick or masonry wall.

It is also an object of the present invention to provide an artificial siding of the type stated which seals the building against drafts, cold, dampness and the like, and also structurally reinforces the building.

It is a further object of the present invention to provide an artificial siding of the type stated which can be efficiently mass-produced in prefabricated sections and conveniently shipped to the construction site.

It is an additional object of the present invention to provide an artificial siding of the type stated which permits a modernized masonry-simulative veneer for the exterior of buildings.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawings:

FIG. 1 is a side elevational view of a so-called "righthand" corner section of siding constructed in accordance with and embodying the present invention;

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1;

FIG. 3 is a side elevational view of a so-called "righthand" wall section of siding forming part of the present invention;

FIG. 4 is a sectional view taken along line 4—4 of FIG. 3;

FIG. 5 is an end elevational view of the so-called "lefthand" corner section of siding forming part of the present invention;

FIG. 6 is a sectional view taken along line 6—6 of FIG. 5;

FIG. 7 is a side elevational view of a so-called "lefthand" wall section of siding forming part of the present invention;

FIG. 8 is a sectional view taken along line 8—8 of FIG. 7;

FIGS. 9 and 10 are fragmentary perspective views showing the manner of applying the siding to the exterior surface of a frame building;

FIG. 11 is a fragmentary sectional view taken along line 11—11 of FIG. 9;

FIG. 12 is a fragmentary perspective view showing a portion of a completely finished wall; and

FIG. 13 is a fragmentary elevational view showing the siding applied to a window frame.

Referring now in more detail and by reference characters to the drawings, which illustrate a preferred embodiment of the present invention, A designates a so-called "righthand" corner section of siding comprising an L shaped piece of metal lath 1 which is preferably formed of expanded metal and having a long rectangular leg 2 and a short rectangular leg 3. Molded around and extending outwardly from one face of the metal lath 1 and being substantially flush with the other face thereof is an L shaped brick-like concrete block 4 having a long arm 5 and a short arm 6 which are positioned so as to define upper longitudinal margins 7, 8 on the legs 2, 3 respectively, and a transverse margin 9 on the short leg 3, the margins 7, 8, 9 preferably all being equal in width and also slightly wider than a common mortar joint. The length of the arm 6 is preferably about half that of arm 5, which, in turn, has a length and width approximately the same as that of a standard construction brick. The brick-like block 4 is molded of a standard concrete block mixture which may, if desired, include coloring pigments and waterproofing agents, and may also be molded to give either a roughened or smooth external texture.

Provided for cooperation with the corner section A, is a so-called "righthand" wall section B, as shown in FIGS. 3 and 4, which comprises a flat rectangular piece of metal lath 10 and a rectilinear concrete block 11, preferably similar in composition to the concrete block 4, previously described. The block 11 is molded around the metal lath 10 substantially flush with one face and, furthermore, extends outwardly from the other face thereof so as to define longitudinal and transverse margins 12, 13, which are slightly larger than a common mortar joint and are therefore equal in width to the margins 7, 8, 9 previously described. The block 11 is, furthermore, of a length and width substantially the same as that of a standard construction brick.

Cooperating with the corner section A and wall section B is a so-called "lefthand" corner section A', as shown in FIGS. 5 and 6, which comprises a piece of metal lath 1' having leg portion 2', 3', a concrete block 4', provided with arms 5', 6', and margins 7', 8', 9', all similar to the corresponding elements in the corner section A, previously described. However, the corner section A' differs from the corner section A in that the margins 7', 8' are opposite to that of margins 7, 8, so that in effect the corner section A' is a mirror image of the corner section A. Similarly, a so-called "lefthand" wall section B' is provided with a flat rectangular piece of metal lath 10', a rectilinear concrete block 11', molded therewith so as to provide margins 12', 13', all similar to the corresponding elements in the wall section B previously described, except that the wall section B is a mirror image of the wall section B.

The sections of siding A, A', B, B' are applied to the walls 14, 15 of a frame structure F in the manner shown in FIGS. 9–13. The exterior surface of the walls 14, 15 are conventionally covered with wooden sheathing 16 over which may be laid a covering of felt paper 17. The walls 14, 15 are conventionally built up from a foundation F which may be of brick, poured concrete, stone or the like. Before applying the sections A, A', B, B' to the walls 14, 15, level chalk lines *a—a*, *b—b* are marked on the walls 14, 15 at a distance upwardly from the foundation F equal

to the width of the block 11 plus that of the margin 12. A corner section A' is then placed at the intersection of the walls 14, 15 in the manner shown in FIG. 9 and secured thereto by means of nails 18, which are hammered through the metal lath 1 and into the walls 14, 15, making sure that the upper margin of the block 4 is aligned with the chalk lines *a—a*, *b—b*. Next a wall section B' is nailed to the wall 15 so that the transverse edge of the metal lath 10' is flush against the transverse margin of the arm 5' of the concrete block 4' while at the same time aligning the upper edge of the block 11' with the level chalk line *b—b*. The lath 10 will overlie a portion of the leg 2', but the arm 5 will be spaced from the block 11' by the margin 13'. Thereafter, the first course of siding is completed by successively nailing to the wall 15 the required number of wall sections B' that are necessary to fill up the wall 15.

The first course of siding on the wall 14 is formed by nailing righthand wall sections B thereto in much the same manner as the sections B' are nailed to the wall 15. The concrete block 11 on the first wall section B is nailed to the wall 14 so that the lath 10 overlies the leg 2' and its transverse edge is flush against the arm 6'. The lath 10 is, furthermore, vertically positioned so that the upper edge of the block 11 is aligned with the chalk line *a—a*. The block 11 will be spaced from the leg 6' by the margin 13, and successive blocks 11 will also be spaced from each other by an amount equal to the margin 13.

After completing the first course on the wall 14, a second course of siding is started by nailing to the walls 14, 15 at the intersection thereof a righthand corner section A as shown in FIG. 10 so that the longitudinal margins of the lath 1 overlie the lath 1' and abut the block 4' thereby separating the blocks 4, 4' by the margins 7, 8. Thereafter, a wall section B is secured to the wall 15 by nailing so that one transverse edge of the lath 10 contacts the arm 6 of the block 4 and one longitudinal margin contacts the block 11. Thus the block 11 is separated from the arm 6 by the margin 13 and is separated from the adjacent blocks 11 in the first course by the margin 12. The sections B' are then nailed to the wall 14 so that the first block 11' is separated from the arm 5' by the margin 13' and the blocks 11' are separated from each other by the margins 12'. The third course of siding is then nailed to the walls 14, 15 starting first with another corner section A' and is thereafter built up in the same manner as that of the first course. The walls 14, 15 are filled up using as many courses of siding as is required.

The corner sections A, A' may also be used around window frames as shown in FIG. 13. The window may be a weighted sash, double hung or other type, and depending upon the construction of the window, it may be necessary to cut off or trim a small amount of the metal lath so as to provide a proper fit therearound at the sill, jamb or head. Since the metal lath may be easily cut with ordinary tin shears, any trimming thereof necessary for window frame work can be readily accomplished.

Upon completion of all courses necessary to fully cover the exterior of the building structure S, the space or joints between the several blocks 4, 4' 11, 11' are tuckpointed to insure a fully sealed and permanent job, and also to give the appearance of a brick wall.

In connection with the present invention, it should be noted that since the wall sections B, B' are manufactured in a standard size, it frequently happens that a measured number of wall sections B, B' will not be precisely sized to evenly fill walls of certain length and height. However, prior to installing the sections B, B', the number necessary for a particular length and height of wall may be calculated, and if the width of the margins 12, 12', 13, 13' is such that a measured number of sections B, B' will not precisely fill the wall, the margins 12, 12', 13, 13' can be adjusted by merely cutting off a small amount of metal from the lath pieces 10, 10'. Thus, by adjusting the size of the margins 12, 12', 13, 13', a measured number of flat wall sections B, B' can be installed on the walls 14, 15 and have mortar joints of approximately equal width between the blocks 11, 11' thereon.

It will be apparent that siding of the foregoing type may be readily manufactured in standard sizes and conveniently handled, shipped and installed on the exterior surface of the building S. The completed installation provides an excellent seal against drafts, dampness and the like, and the overlapping sections of metal laths 1, 1', 10, 10', significantly reinforce the walls of the building S.

It should be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the artificial siding for frame buildings and the like and in the methods of using the same may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. For use on frame buildings and the like, a discrete unit of siding comprising a substantially rectangular section of self-supporting foraminous material having a rear face and front face, and a rectangular masonry block molded into the interstices of said section flush on one side with the rear face of the section and projecting outwardly on the other side to a substantial distance above the front face of the section, said masonry block being substantially smaller than said section of foraminous material and having four side faces which are spaced inwardly from the respective edges of said section so that said block is surrounded by an extended portion of the section of foraminous material thereby forming four endwise connected flat flanges which respectively project outwardly beyond the side faces, said block further being located on said section so that two flanges extend outwardly from two adjacent mutually perpendicular side faces of the block by substantially the same distances, each of said distances being substantially equal to the width of the desired masonry joint which is simulated when two such units are laid in adjacent relationship, said two flanges being substantially narrower than the other two flanges extending outwardly from the other two mutually perpendicular side faces of the block so that when two such units are mounted in adjacent relation, a narrow flange of one unit will overlie a wide flange of the adjacent unit to afford overlapping engagement between adjacent units when the same are fastened down and, moreover, the edge of such narrow flange of said one unit will abut a side face of the masonry block on the adjacent unit to establish spacing between the units in simulation of a masonry joint.

2. A discrete unit of siding for frame buildings and the like according to claim 1 further characterized by the fact that both the section of foraminous material and masonry block are unitarily formed in an L-shaped cross-section about a common corner line.

3. For use on frame buildings and the like, a discrete unit of siding comprising a substantially rectangular section of foraminous metal lath having a rear face and a front face, and a rectangular masonry block molded into the interstices of said section flush on one side with the rear face of the section and projecting outwardly on the other side to a substantial distance above the front face of the section, said masonry block being substantially smaller in overall area than said section and having four perimetral side faces spaced inwardly from and parallel to the perimetral edges of the section so that said block is surrounded on all sides by extending portions of

the section thereby forming four endwise connected flat flanges, said block further being located in non-symmetrical relationship upon said section so that two flanges which extend outwardly from two mutually adjacent perpendicular side faces of the block are of substantially equal width, the other two flanges which extend outwardly from the other two adjacent mutually perpendicular side faces of the block being of substantially equal width and being substantially wider than the first-named two flanges, said narrow flanges furthermore having a width substantially equal to the width of the masonry joint which is simulated when two such units are laid in adjacent relationship, said flanges all being coplanar so that when two such units are mounted in adjacent relation, a narrow flange of one unit will overlie a wide flange of the adjacent unit to afford overlapping engagement by the adjacent units when the same are fastened down and, moreover, the edge of said narrow flange portion of said one unit will abut a lateral face of the masonry block on the adjacent unit to establish

spacing between the units in simulation of a masonry joint.

4. A discrete unit of siding for frame buildings and the like according to claim 3 further characterized by the fact that both the section of foraminous metal and masonry block are unitarily formed in an L-shaped cross-section about a common corner line.

References Cited in the file of this patent

UNITED STATES PATENTS

787,023	Buell	Apr. 11, 1905
1,592,591	Amele	July 13, 1926
1,853,824	Krauss	Apr. 12, 1932
1,894,584	Fort	Jan. 17, 1933
1,976,947	Krauss	Oct. 16, 1934
1,994,644	Harshberger	Mar. 19, 1935
2,006,635	Farr	July 2, 1935

FOREIGN PATENTS

191,780	Switzerland	Sept. 16, 1937