Apr. 17, 1923.

1,452,432

V. J. MILLER

MATERIAL BUILDING UNIT

Filed April 5, 1921

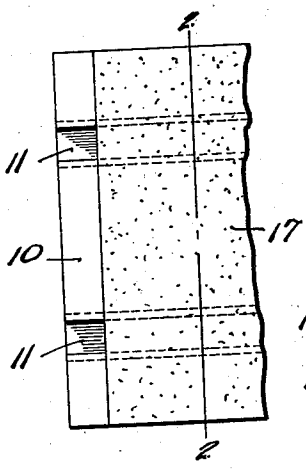


FIG. 1.

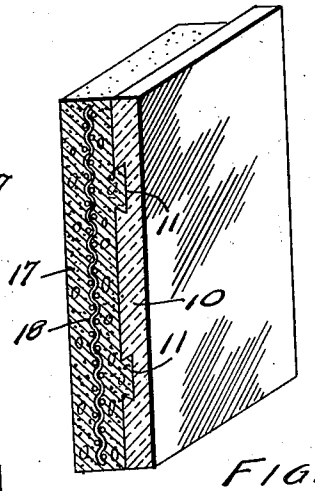


FIG. 2.

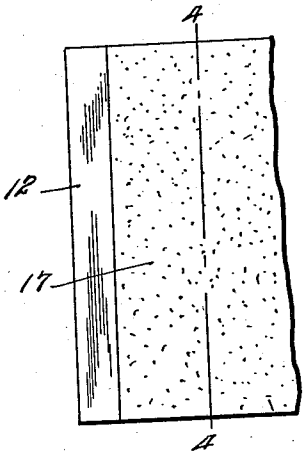


FIG. 3.

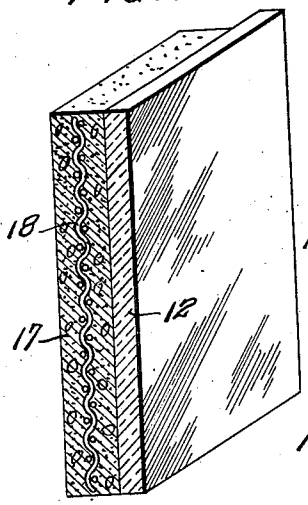


FIG. 4.

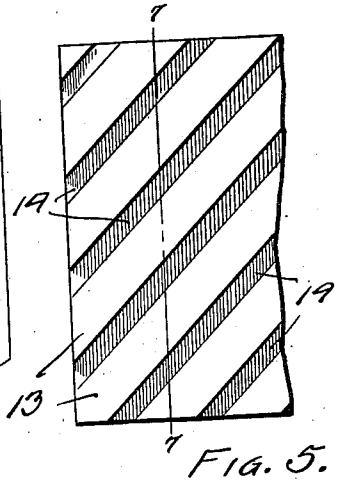


FIG. 5.

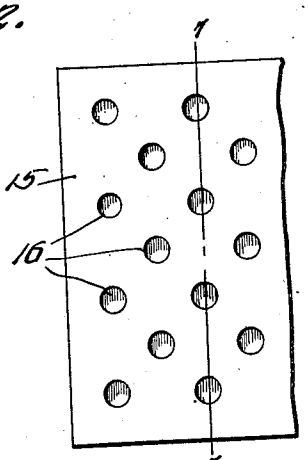


FIG. 6.

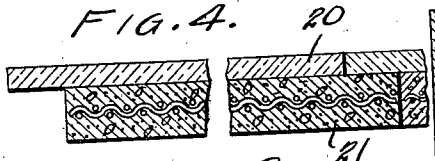


FIG. 8.

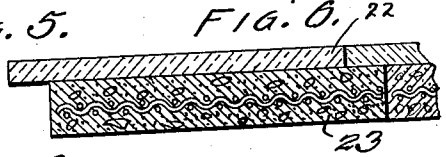


FIG. 9.

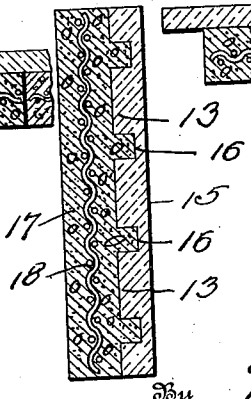


FIG. 7.

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UNITED STATES PATENT OFFICE.

VERNON J. MILLER, OF EAST ORANGE, NEW JERSEY.

MATERIAL BUILDING UNIT.

Application filed April 5, 1921. Serial No. 458,661.

To all whom it may concern:

Be it known that I, VERNON J. MILLER, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Material Building Units; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to building materials, and has for an object to provide an article of the general shape and form of a board for various and general uses, and comprising an impervious face of comparatively thin material backed up and reinforced by a backing of comparatively cheap material.

A further object of the invention is to provide an article for general uses and purposes, having a face plate of ornamental or attractive design, comparatively thin, backed up by a reinforced backing of cheaper but stress-resisting material.

With these and other objects in view, the invention comprises certain novel features, elements, units, parts, combinations and arrangements, as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a fragmentary view of the device seen in rear elevation.

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1.

Figure 3 is a rear elevation of a slightly different modification of the invention.

Figure 4 is a transverse sectional view taken on line 4—4 of Figure 3.

Figure 5 is a view in rear elevation of the impervious plate, showing one type of formation.

Figure 6 is a view in rear elevation of the impervious face plate, showing a different type of formation.

Figure 7 is a transverse sectional view taken on line 7—7 of Figures 5 and 6, and showing means of attaching to the reinforced backing.

Figure 8 is a longitudinal sectional view through one of the devices, showing one means of providing the ends with interlocking extremities.

Figure 9 is a transverse sectional view, showing means for interlocking the units along the longitudinal edges when the device is used, for instance, for facing a building, and in substitutes for clap boards.

Like characters of reference indicate the corresponding parts throughout the several views.

The present invention, in its broadest sense, comprises an impervious face plate, which may or may not be of ornamental or attractive design, and may be of such material as glass, marble, tile, terra cotta, stone or the like.

This face plate is made comparatively thin for purposes of economy, and in such condition would not present much strength for supporting the strain to which it would be subjected.

The invention, therefore, comprises providing this face plate with a backing of stress-resisting material, which preferably would be some cementitious material, such as Portland cement or the like, although the invention is not limited to this particular material; also reinforcing this cementitious material, although the invention is not limited to such reinforcement.

Preferably, also, the reinforcing will be by some metallic means such as wire fabric, metal lathing or the like, comprehending the use of any usual and ordinary material for the purpose, and is not limited either to the metal lathing or to the wire fabric, but includes all forms of reinforcement as now practiced, or as may hereinafter be practiced.

In the drawings, at Figures 1 and 2 the face plate 10 is shown as provided with grooves 11 of dovetailed formation. The use of such grooves is not essential to the present invention, for at Figures 3 and 4 the face plate 12 is shown as substantially plain at the back. At Figure 5 a face plate 13 is shown with a plurality of grooves 14 inclined to the longiutde of the article.

When grooves are employed the relation of the grooves to the article is immaterial, and showing them in inclined position as at Figure 5 is intended as no limitation upon the invention.

The face plate 15 shown at Figure 6 is provided with a plurality of holes or recesses 16, and the showing thereof in staggered relation is not in any way a limitation of the arrangement of such perforations or indentations as may be employed.

At Figure 7 the face plate has similarly been numbered 15 and the indentations 16

indicated, but this is also and fully as much a section of the face plate 13 shown at Figure 5 and the recesses shown at 16 in Figure 7 are the equivalent of grooves 14 shown at Figure 5.

In any of the forms, a backing is provided which is preferably made up of cementitious material 17 as indicated at Figures 1 to 7 inclusive, and also preferably a reinforcing is imbedded in, or employed in conjunction with this cementitious backing.

As shown at 18, this reinforcing indicates woven fabric, but as hereinbefore stated, the reinforcing by means of such fabric is no limitation upon the present invention and the showing of the reinforcing as such is intended only as illustrative and not in any way as a limitation.

When the device is used with one of the members formed as a longitudinal continuation of another, an arrangement such as shown at Figure 8 is desirable, wherein the face plate 20 overlaps the backing 21 at one end, while the backing 21 overlaps the face plate 20 at opposite end, so that the next one employed may fit into this joint in the well-known means of halving joints.

When the device is to be used with the units engaging laterally, as for instance in clap board construction, the face plate 22 as shown at 9 will overlap the backing 23 at one longitudinal edge, while the backing will overlap the face plate at the opposite longitudinal edge, the provision of halved joints being the same as described in regard to Figure 8, except that this halving is available at longitudinal edges instead of at the end. It is also obvious that both of these may be combined so that the joints may be halved both at the ends and at the sides, and Figures 8 and 9 are intended to convey this combination of joints.

The structure as an entirety will resemble a board or plank, and will be used in many cases where boards or planks are ordinarily employed, and by reason of the impervious face plate made thin and therefore cheaply with the reinforcing, may be economically employed, and will present a weather-proof or water-proof surface wherever so employed.

The term "cementitious" as used in the foregoing specification is intended to broadly cover any material which may be used as the backing for the face plate applied thereto in a semi-liquid or plastic condition to harden in adhesion in any manner, as by drying, crystallizing or being fired.

I claim:

A material building unit, including an impervious face-plate having a reinforced rigidified plastic backing secured thereto and and having indentations therein filled with the plastic material of said backing plate, being substantially parallel to those of the facing plate, the walls of said backing plate being substantially parallel to those of the face-plate, the members interlocking along their longitudinal edges and ends by means of offset-portions which project along one side and edge and inset from the opposite side and edge.

In testimony whereof, I affix my signature.

VERNON J. MILLER.

Witnesses:
MARY L. MOORE,
C. O'DONOGHUE.