Sept. 12, 1933. S. S. GIBNEY ET AL 1,926,093

BUILDING UNIT AND METHOD OF MANUFACTURING THE SAME

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Fig. 1

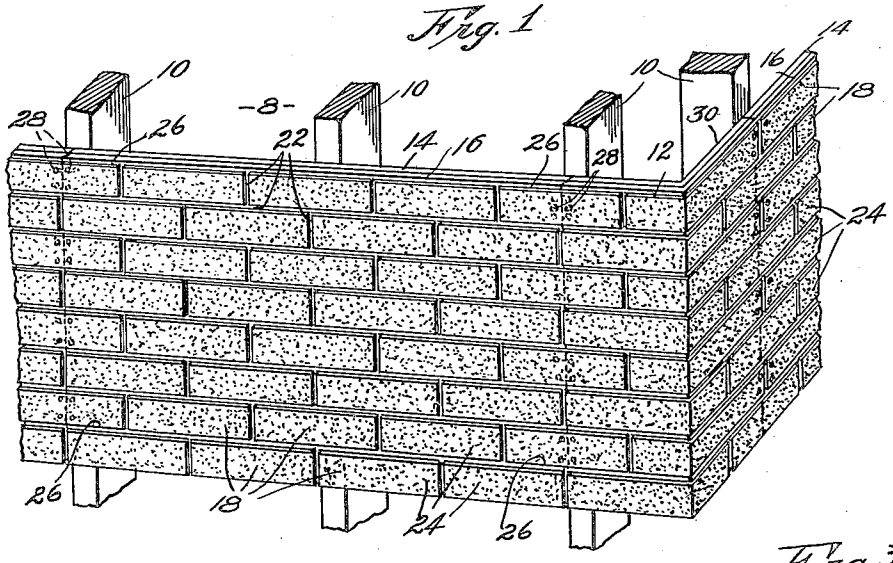


Fig. 2

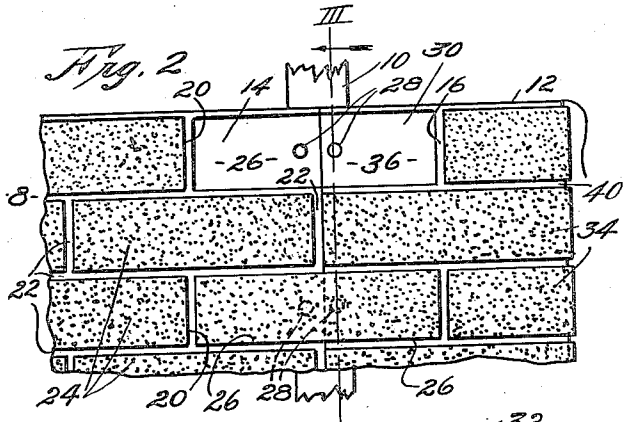
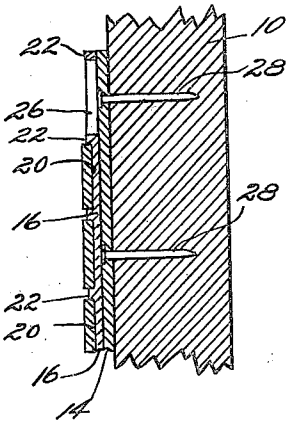


Fig. 3



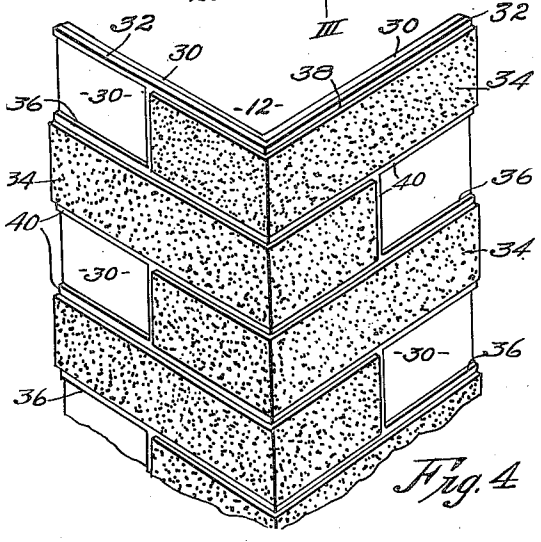


Fig. 4

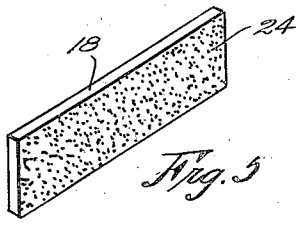


Fig. 5

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BUILDING UNIT AND METHOD OF MANUFACTURING THE SAME

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Serial No. 577,216

10 Claims. (Cl. 20—5)

This invention relates to building structures, the units comprising the same, and the method of manufacturing the unit.

The primary object of the invention is the contemplation of a novel building unit having a surface simulating brick, tile or other heavy material but formed in a unique manner to avoid using the actual heavy material in the ordinary manner.

One of the objects of the invention is to provide a substantially rectangular building unit in sheet form that may be attached directly to the studding of a new building frame or to the previously used siding of old structures.

Another object of the instant invention is the provision of a planar building unit having straight parallel sides and ends which abut the sides or ends of the adjoining unit in a manner to create the appearance of an uninterrupted line or course of brick or tile.

This invention further aims to provide a building unit of the above general character that is effective in creating the appearance of regular courses of brick, takes the place of brick, stucco or ordinary wood siding and thoroughly insulates the building with which it is associated.

A yet further object of this invention is to provide a building unit that is strong, durable and cheap to manufacture; that reduces the cost of applying a siding to any building; that eliminates the necessity of boxing and building paper; that weighs but little per square, and is lasting and as weatherproof and free from maintenance requirements as any wall of brick, stone and materials of similar nature.

Minor objects of the invention, including refinements of construction, method of manufacturing and applying the unit, and flexibility in handling will appear during the course of the following specification referring to the accompanying drawing wherein:

Figure 1 is a perspective view of a portion of a building wall embodying this invention.

Fig. 2 is a fragmentary face view of a pair of abutting building units.

Fig. 3 is a vertical, fragmentary section along line III—III of Fig. 2.

Fig. 4 is a perspective view of a fragment of a corner member, and,

Fig. 5 is a perspective view of one of the brick faces or blocks entirely removed from its place in the building unit.

Like reference characters are used herein to designate similar parts throughout the several views of the drawing, and the numeral 8 indicates a complete rectangular planar unit that abuts adjoining units and is affixed to the well-known studding 10 of a building being constructed in accordance with the instant invention.

The corner unit 12 is preferably pre-formed to present a right angled member suitable for use at the corners of the building. The component parts and broad idea of manufacturing this corner unit is much the same as planar unit 8 and will be fully set down hereinafter.

With specific regard to each unit 8 and its novel peculiarities, the same is made by employing a base 14 which should be a fibrous material strong enough to carry a cementitious coating 16 over one side and wherein is embedded a series of shallow bricks 18. One face of the bricks is exposed as illustrated and should have the approximate dimensions of a standard brick so far as length and width are concerned.

In the actual manufacture, the base 14 is cut to size and overlaid with a cementitious coating 16 in plastic state. A suitable template is next superimposed over the coating 16 which presents a guide for the placing of rectangular bricks 18. In pressing bricks 18 in place, a rectangular cavity 20 is formed for each one and the arrangement is in series and end to end relation like the well-known courses of brick. In forcing the shallow bricks 18 into cementitious coating 16 a ridge 22 is drawn up therebetween to present a "mortar joint" of a size and appearance to simulate such a joint between standard brick which have been set up in courses.

Bricks 18 that constitute a part of the unit assembly made in accordance with this invention may be molded of suitable materials and the faces 24 thereof sprinkled or otherwise provided with granular substance such as slate, glass, porcelain or metal. The brick 18 is colored as required and variations or shading effects produced through the substance thereon being selected for colors desired.

When placing bricks 18, the end ones of alternate or every other row must be thicker than the others and removed before the cementitious substance 16 has completely set. As a matter of fact, and an alternate method of forming these end cavities of alternate rows, the template used should carry a block at these locations to lie against the surface of base 14. Thus when this block and template are removed a cavity 26 is presented having a ridge 22 completely around three sides of the same and having a bottom formed by the base 14. This cavity 26 is at the end of alternate rows of cavities 20 and when the ends of units 8 are in abutting relation as shown

in the drawings, the two cavities 26 combine to form a cavity of equal length and width as the others of the units 8.

When units 8 are formed and ready for use, they are placed in abutting relation against the structure that is to support them and nails or other suitable fastening means 28 driven to position through base 14. If desired, holes may be formed from the bottom of cavities 26 to receive nails 28. After this securing operation takes place a brick 18 of suitable thickness is introduced into the long cavity formed by two cavities 26. The joint between the two units 8 is thus covered by the inserted brick and since the line of abutment is at the very end of the bricks between these cavities 26, no line here will show. Cement is used in fixing the inserted brick and an effective tie is established to further produce a unitary wall. Obviously all evidence of fastening means 28 is eliminated.

Corner units 12 are handled like the planar units 8 and include a backing of sheet material 30 having insulating qualities like the base 14. A cementitious coating 32 has a series of brick members 34 therein between which are formed cavities 36 for the reception of the tie bricks previously described. It is notable that all of these cavities are substantially one-half the length of the long side of brick 18 or 34 as the case may be. Cavities 38 receive the two-sided bricks 34 and ridges 40 are established between the bricks as hereinabove mentioned.

In practice it is desirable to partially impregnate base 14 and 30 with waterproofing to add still another advantage to the structure.

Manifestly, boxing, builder's paper, insulating material or any other similar parts of a building are not needed when making a structure in accordance with this invention. The side of the individual side or corner unit 8 and 12 respectively may be altered to suit requirements, and a multitude of effects are possible. Different sized units may be employed to cope with the location of openings for doors and windows. Breaks or imperfections in the joints between bricks 18 and 34 may be "pointed" in a manner like any wall and the lasting qualities of the structure embodying the invention are equal to walls using full-sized brick laid up in mortar in the established way.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A building unit comprising a base of sheet material; a cementitious coating overlying one side of said base and adhering thereto; a series of cavities formed in said cementitious material and a brick positioned in some of said cavities and projecting therefrom, each brick presenting an outstanding face in a plane spaced apart from the plane of said cementitious material surrounding said cavities.

2. A building unit comprising a base of sheet material; a cementitious coating overlying one side of said base and adhering thereto; a series of shallow cavities formed in the said cementitious material; a brick positioned in certain of said cavities; and fixtures continuing from the bottom of some of said cavities through the base, whereby to fasten said unit to supporting members.

3. A building unit comprising a base of sheet material; a cementitious coating overlying one side of said base; and a series of shallow rectangular cavities formed in the said cementitious material, said cavities arranged in straight rows and in end to end relation, alternate rows having their cavities offset and in overlapping relation to the cavities of adjacent rows.

4. A building unit comprising a base of sheet material having straight, continuous, parallel sides and straight continuous ends; a cementitious coating overlying one side of said base; and a series of cavities of uniform size arranged in rows parallel to the sides of said base and extending from end to end of the base, the end cavities of alternate rows of cavities being substantially one-half the length of the others.

5. A building unit comprising a base of sheet material having straight, continuous, parallel sides and straight continuous parallel ends; a cementitious coating overlying one side of said base; a series of cavities arranged in rows parallel to the sides of said base and extending from end to end of the base; and holes continuing from the end cavities of alternate rows and formed through said base.

6. As a new article of manufacture, a building unit comprising a substantially rectangular base; a series of cavities formed in said base and arranged in rows across the face of said base; and a brick in all of said cavities excepting the end cavities of alternate rows thereof.

7. A building unit comprising a planar base of insulating material; waterproofing impregnating said base; a cementitious coating overlying one side of said base and adhering thereto; a series of shallow cavities formed in said cementitious material; a brick positioned within each of said cavities; and holes formed through said base material, terminating at the bottom of certain of said cavities, said sides of said unit having straight parallel opposite sides, the said cavities and contained bricks being arranged to simulate courses of brick.

8. In a building structure, a number of spaced apart studding; and a plurality of building units secured to said studding, each unit being substantially rectangular and abutting the adjoining unit along a straight line, brick receiving cavities formed in each unit and arranged in horizontal rows, the end cavities of alternate rows of each unit cooperating with the end cavities of adjoining units to form cavities of a size equal to the remaining cavities.

9. In a building structure, a number of spaced apart vertical studding; and a plurality of building units secured to said studding, the vertical abutting edges of adjoining units being straight and continuous from side to side of said unit at the center of one of said studding, a series of cavities formed in said units and arranged in rows, end cavities of alternate rows each having a hole continuing therefrom through said unit whereby a fixture may be passed therethrough into the underlying studding.

10. In a building structure, sheeting for the walls thereof formed to simulate courses of brick and including a number of units having continuous sides abutting in a straight line throughout the length and breadth of said unit, said units each having rows of shallow cavities formed therein and a brick carried within each cavity.

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