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INTERLOCKING BUILDING UNIT AND HOLLOW WALL CONSTRUCTION

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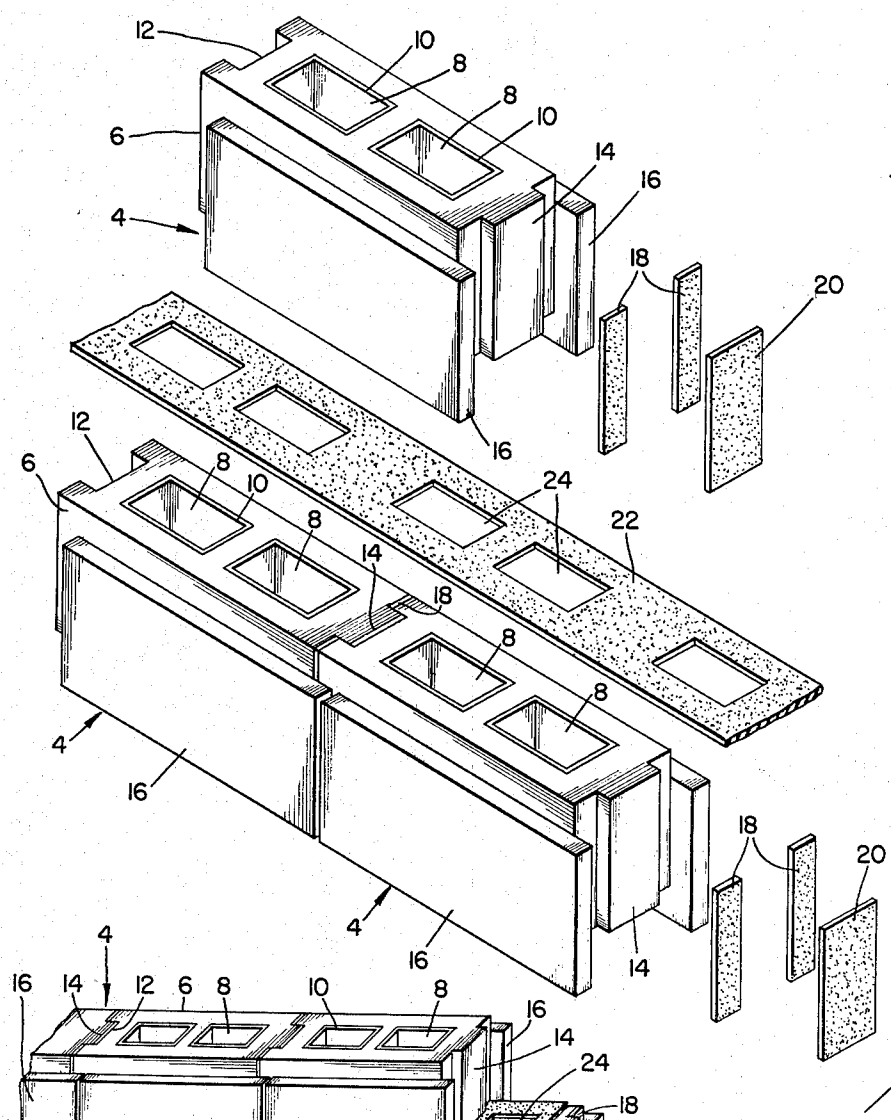


FIG. 1

FIG. 2

INVENTOR.
SAMUEL BLANC
BY F. J. Fisarra
ATTORNEY.

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INTERLOCKING BUILDING UNIT AND HOLLOW WALL CONSTRUCTION

Samuel Blanc, Cliffside Park, N. J.

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2 Claims. (Cl. 72—41)

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This invention relates to wall units having improved structural features and to building walls constructed from such units.

It is a primary object of the invention to provide wall units of improved construction and design that may be readily employed in the fabrication of building walls and the like.

Another object of the invention is to provide a building wall made up of units adapted to be readily laid in a series of superposed courses and in interlocking engagement with immediately adjacent units in the same course and in courses directly thereabove or therebelow.

Another object of the invention is to provide a wall unit that may be readily used with like units in the fabrication of a building wall, the units being so configured as to permit of proper and accurate alignment in the course of constructing the wall by relatively unskilled labor.

Another object of the invention is to provide a wall construction made up of individual units adapted to be assembled and maintained in interlocking relation without the aid of mortar or the like.

The invention has for another object the provision of building walls constructed of individual units having aligned vertical through openings for containing heating and ventilating ducts, electrical cables, water conduits, gas piping and the like. The openings are preferably lined with a suitable moisture-impervious insulating material.

A further object of the invention is to provide a building wall construction of the character indicated having adhesive gaskets between successive units in each course and a strip gasket interposed between the top surfaces of units in one course and the bottom surfaces of units in the course directly thereabove, the strip gasket having openings that align with vertical through openings in the units.

A still further object of the invention is to provide building wall units that are reasonable in manufacturing cost and that are adapted to be readily and quickly disposed in interlocking relation to obtain an inexpensive, sturdy and durable wall.

To the end that the foregoing objects may be readily attained, a wall unit constructed in accordance with this invention may be made of any suitable material, such as cement, asbestos, wood, synthetic plastics, or the like. The unit preferably comprises an upstanding, generally rectangular body having a plurality of vertical through openings formed therein. Each opening is provided with a liner of a suitable insulating material. The body is also provided with a vertical groove at its rear end and an integral vertical tongue that projects forwardly of its front end. A pair of parallel facing members is preferably formed integral with the body and is disposed to opposite sides thereof. Each facing member is positioned below the upper end and forwardly of the rear end of the body and projects beyond the front end and below the lower end of the body in spaced relation to the tongue.

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A plurality of the units are adapted to be arranged in a series of superposed courses in the course of forming a building wall therewith. When the units are so arranged, the tongue of each unit in one course registers with the groove of the next forwardly adjacent unit in the same course; the rear end portion of each unit in one course is positioned between the forwardly projecting portions of the members of the next rearwardly adjacent unit in the same course; and parts of the upper portions of units in one course are positioned between the lower end portions of facing members of units in a course directly thereabove. At the time of assembly, adhesive gaskets are positioned between ends of units in the same course. Also, an adhesive gasket strip is interposed between bodies of units in successive courses. This strip has openings that align with corresponding openings in the units.

The enumerated objects, as well as other objects, together with the advantages obtainable by the practice of this invention, will be readily understood by persons skilled in the art upon reference to the detailed description that follows, taken in conjunction with the annexed drawing, which respectively describe and illustrate a recommended form of wall unit constructed in accordance with the invention and a building wall made up at least in part by the use of a plurality of such units.

In the drawing:

Figure 1 is an exploded isometric view of a portion of a building wall embodying the invention; and

Figure 2 is an isometric view of a portion of a wall constructed with the wall units of this invention.

Referring now to the drawing wherein like reference numerals denote corresponding parts throughout the several views, a preferred form of building unit, generally indicated by numeral 4, comprises an upstanding, generally rectangular body 6 having a pair of vertical through openings 8. Each opening 8 is lined with a suit-

able insulating material 10. Body 6 is provided at its rear end with a vertical groove or keyway 12 and at its front end with a forwardly projecting vertical tongue or key 14. As is indicated in the lower portion of Figure 1 and in the upper portion of Figure 2, tongues 14 are adapted to register with grooves 12.

Integral with body 6 is a pair of rectangular facing members 16. These members are parallel to each other and are disposed to opposite sides of body 6. Each member 16 is positioned below the upper end and forwardly of the rear end of the body and projects beyond the front end and below the lower end of the body, as best shown in Figure 1.

Units 4 are adapted to be arranged in interlocking relation in superposed courses, as shown in Figure 2. When so arranged, tongues 14 register with grooves 12 of units in the same course. The portions of the units above members 16 in one course register with openings defined by the downwardly projecting portions of members 16 in the course directly thereabove. Adhesive gaskets 18 and 20 are positioned between the front end surfaces of each unit and the rear end surfaces of the next rearwardly adjacent unit in the same course at the time of assembly. Gaskets 18 and 20 may be made of any moisture-impervious material suitable for the purposes of this invention. Interposed between courses is an adhesive gasket strip 22, made of a suitable material and having openings 24 that align with openings 8 in corresponding units.

If desired, either or both exposed surfaces of members 16 of each unit 4 may be smooth. Thus, by making the surfaces of members 16 that constitute the inner face of the wall smooth, the need for plastering or otherwise finishing that surface is eliminated. Further, the units may be pigmented to obtain any desired color effect for decorative purposes.

Thus it will be seen that the construction herein shown and described is well adapted to accomplish the objects of the present invention. It will be understood, however, that the invention may be embodied otherwise than here shown, and that in the form illustrated certain obvious changes in construction may be made. Therefore, I do not wish to be limited precisely to the construction herein shown except as may be required by the appended claims considered with reference to the prior art.

I claim:

1. In a wall unit of the character described, a body having parallel upper and lower surfaces and parallel side surfaces, each of said surfaces lying in a corresponding single plane, said body having a groove in its rear end and an integral tongue that projects forwardly of its front end, the transverse width of the tongue being substantially the same as the width of the groove, and a pair of facing members disposed directly on opposite sides of the body, each member being positioned below the upper surface and forwardly of the rear end of the body and projecting beyond the front end and below the lower surface of the body, said members being spaced from and extending forwardly beyond the tongue and being spaced from and terminating forwardly of the groove.

2. A wall construction that is made up at least in part of a plurality of superposed horizontal courses of wall units, each unit comprising a body having parallel upper and lower surfaces and parallel side surfaces, each of said surfaces lying in a corresponding single plane, said body having at least one vertical through opening, said body also having a groove in its rear end and an integral tongue that projects forwardly of its front end, the transverse width of the tongue being substantially the same as the width of the groove, and a pair of facing members disposed directly on opposite sides of the body, each member being positioned below the upper surface and forwardly of the rear end of the body and projecting beyond the front end and below the lower surface of the body, said members being spaced from and extending forwardly beyond the tongue and being spaced from and terminating forwardly of the groove, the upper portion of the body of a wall unit in a lower course being positioned between the lower portions of the members of a unit in a course directly thereabove, the rear portion of the body of said wall unit being positioned between the forwardly projecting portions of the members of the next rearwardly adjacent unit in the same course, the tongue of said rearwardly adjacent unit extending into the groove of said wall unit, a gasket intermediate the bodies of units in successive courses, said gasket having openings aligned with the through openings in the units in courses thereabove and therebelow, and a gasket element disposed between the forward end surface of each tongue and the groove-defining surface opposite thereto of the next forwardly adjacent unit in the same course.

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