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PRE-CAST BUILDING UNITS

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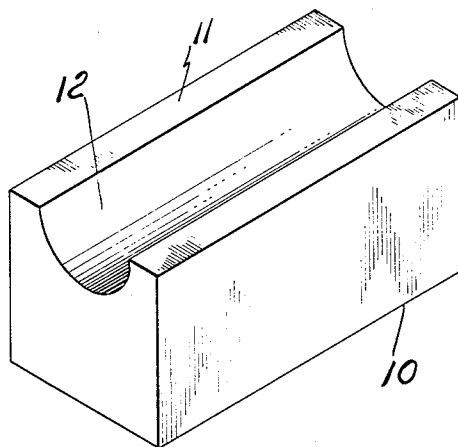


Fig. 1

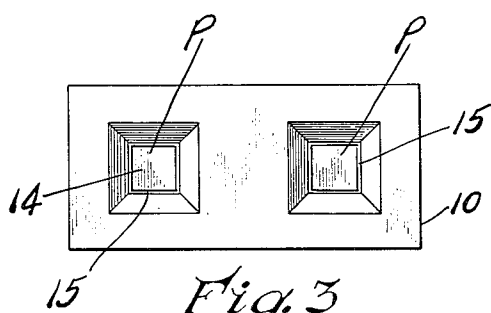


Fig. 3

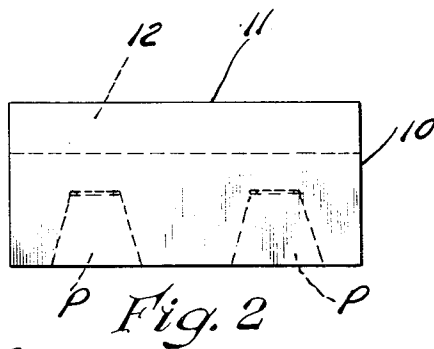


Fig. 2

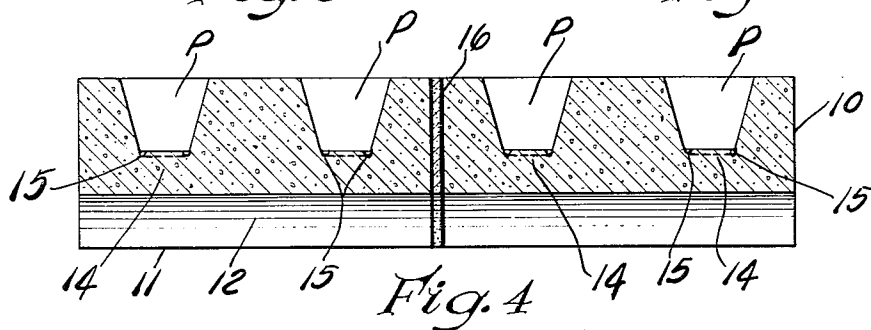


Fig. 4

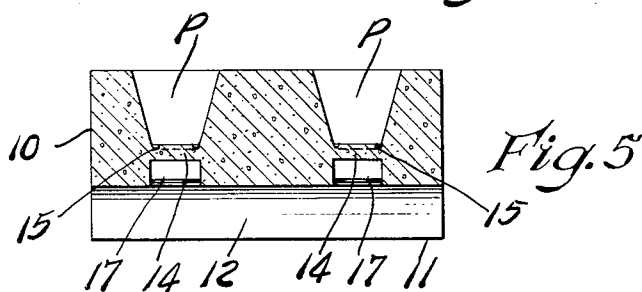


Fig. 5

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## PRE-CAST BUILDING UNITS

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This invention relates to pre-cast building units such as used in the construction of buildings in general, and which are designed for both utility and artistic appearance when laid up in a building.

One of the prime objects of the invention is to design a building unit which forms an organizable, selectable base coupler for modern sub-assemblies, which unit is so formed and shaped that when laid up in a wall, heat and/or ventilating conduits, water and soil pipes, electric wires, cables and similar equipment may be incorporated in and effectively concealed from view in said wall.

Another object of the invention is to design a multi-sided, pre-cast unit formed with spaced-apart recesses and channels therein, so that when laid in one position in a wall, the channel forms a continuous passage to accommodate outlets of all kinds, and in another position accommodates lighting effects and appliances, awning rollers, and similar equipment, as well as forming pleasing and well-defined patterns with artistic decorative effects.

Still a further object is to provide a multi-sided pre-cast block which can be laid on any one of its four sides or surfaces, the positioning depending on whether it is desired to secure architectural effect, provide recesses for lights or other decorative appliances; continuous passages for pipes or conduits, either horizontal or vertical; exposed recesses for indirect lighting, or merely to form a smooth supporting wall.

Still a further object is to design a multi-sided unit which forms a part of a well-regulated assembly and pattern which complements existing common, standard and special blocks and which when laid up in a wall, lends artistic effects to the sidewalls of a building, providing conduits for utilities, said blocks being designed for mass production in large quantities by manufacturers.

Still a further object is to provide a pre-cast block formed with sections so designed and constructed that they form a selectable base from which any number of different designs and architectural effects may be produced, said blocks being also provided with quick knock-out sections, providing openings to accommodate and conceal from view horizontally disposed conduits, pipes, wires, etc. which can be turned to run in any desired direction, this assembly providing for better insulation, reducing moisture, conserving space, and giving character and individuality to the building in general.

Other objects and advantages will be apparent during the course of the following description in which:

Fig. 1 is an isometric view showing my pre-cast block.

Fig. 2 is a side-elevational view thereof.

Fig. 3 is an inverted plan view thereof.

Fig. 4 is a transverse-sectional view showing two blocks laid in end-to-end relation with a mortar joint therebetween.

Fig. 5 is a view similar to Fig. 4 showing a slightly modified construction.

Referring now more specifically to the drawing in which I have shown the preferred embodiment of my invention, the numeral 10 indicates generally a multi-sided, pre-cast

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building unit formed of cement or other suitable plastic material.

This unit is of so-called standard concrete block dimensions, the upper face 11 being formed with a horizontally disposed channel 12 extending from end-to-end thereof to accommodate pipes, cables, etc. (not shown), or to provide for artistic appearance when the block is laid on its side with the channel 12 exposed to view, in which position it can also serve as a lighting recess, or for any other desired purpose.

Spaced-apart depressions or pockets P are formed in the face of the block opposite to the channel 12, these pockets being outwardly pitched so that the mold section (not shown) can be readily withdrawn, and the thin wall at the bottom of the pocket forming a knock-out section 14 defined by the marginal groove 15 so that it can be readily knocked out by the mason or builder using a hammer or other tool (not shown), so that conduits, pipes, wire, etc. can be installed when the units are laid up in end-to-end relation, and I wish to direct particular attention to the fact that utilities of any nature can be laid in any block course of the wall, because when the knock-out sections are removed, there is formed a continuous duct or channel from top to bottom, or to any intermediate point in the wall.

It will be noted that in order to provide an artistic arrangement and accurate vertical passages, the space between the two depressions or pockets in the one face of the block is greater than the spacing from the one edge of the pocket to the end of the block, and this is due to the fact that when the blocks are laid up in a course, a mortar joint 16 must be provided between the ends of the abutting blocks, so that the space between the two depressions or pockets P at the ends of the blocks when laid up, will be the same as the space between the adjacent edges of the pockets in each individual block.

To provide for clean, sharply defined edges when the knock-out section 14 is removed, the grooves 15 at the bottom of the cored section 14 are quite sharply defined, so that when this section is struck with a hammer (not shown) or the like, the section will break free and on substantially accurate, symmetrical lines, providing an opening so that pipes, etc. may be run vertically if desired, the spacing of the pockets being such as to insure alignment of the passages created when the knock-out sections are removed.

When the blocks are laid to expose the channel-shaped face, many architectural and ornamental effects and advantages are provided. Awning rollers etc. (not shown), can be housed therein, fluorescent lighting and shadow lights can be installed in the recess, and it can also be utilized in making up many new and modernistic designs around window and door openings and in the wall itself, and it can further be made up in miniature for use by children, and as a basis for teaching in educational institutions in general.

As noted the blocks are freely interchangeable, the four side walls which are rectangular in outline being of identical perimetral dimensions. Thus the length of each side wall surface of the block is identical to the length and width of the other side wall surfaces.

In Fig. 5 of the drawing I have shown a slightly modified construction; the pockets P are provided in exactly the same manner, but a depression or recess 17 is provided in the opposite face of the block and is open to and in alignment with the pocket P so that when the section is knocked out, the edges will be sharply defined as the cross section will be of uniform thickness.

From the foregoing description, it will be obvious that I have perfected a very simple, practical and ornamental pre-cast building unit which has excellent acoustical properties, which can be laid up in any desired manner to pro-

vide a multiplication of architectural effects, provide for concealed lighting, accommodate utilities of all kinds, and/or to provide a smooth faced wall if desired.

What I claim is:

1. An interchangeable, pre-cast block of generally rectangular cross-section, the four side walls of which are rectangular in outline and of identical perimetral dimensions to provide an interchangeable, multi-faced block, the length of each side wall surface and the width of each side wall surface being identical to the length and width of the other side wall surfaces respectively, one side wall being centrally channeled from end-to-end, the opposite side wall having longitudinally spaced-apart pockets provided therein centrally, the bottom of each pocket forming a knock-out section and being grooved along the wall outline to form a breakage line, said pockets being spaced a predetermined distance from the end walls less than the distance between them so that the distance between adjacent pockets in abutting blocks, when the blocks are laid in end-to-end relation with a thickness of mortar therebetween, is substantially equal to the distance between pockets in the same block, said remaining side walls of the block being flat and smooth.

2. The combination defined in claim 1 in which unconnected recesses are provided in the channeled surface of said block in alignment with the bottoms of said pockets.

3. The combination defined in claim 1 in which the marginal walls of said pockets converge toward one another from the face of said opposite side wall.

4. An interchangeable precast block of generally rectangular cross section, the four side walls of which are

rectangular in outline and of identical perimetral dimensions to provide an interchangeable, multi-faced block, the length of each side wall surface and the width of each side wall surface being identical to the length and width of the other side wall surfaces respectively, one side wall being centrally channeled from one end to the opposite end, the opposite side wall having longitudinally spaced apart pockets provided therein of a substantial depth relative to the channel so that a relatively thin knockout wall remains between the bottom of each pocket and the channeled surface, said pockets in a block being spaced a predetermined distance apart and spaced with regard to the ends of the block so that the distance between adjoining pockets in the row of pockets formed when a pair of the blocks are laid in end to end relation with a thickness of mortar between the abutting blocks is substantially equal.

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