Sept. 10, 1929. R. G. BONE 1,727,362

THREE-WALLED BUILDING BLOCK

Original Filed Nov. 7, 1927

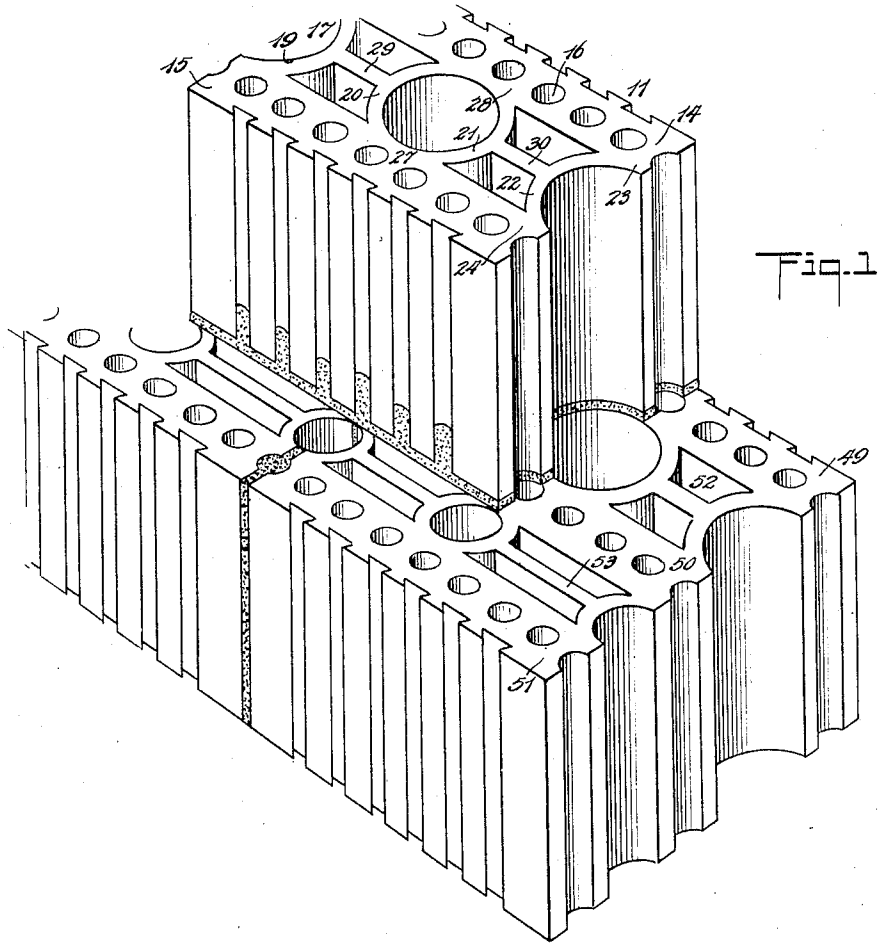


Fig. 1.

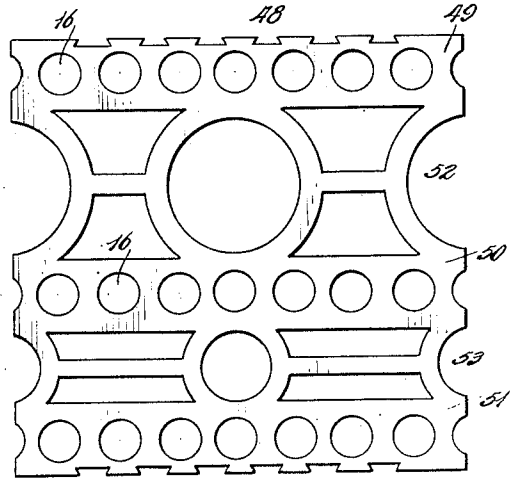


Fig. 2.

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THREE-WALLED BUILDING BLOCK.

Original application filed November 7, 1927, Serial No. 231,762. Divided and this application filed April 10, 1928. Serial No. 269,010.

The invention relates in general to a hollow block building wall construction and specifically relates to a form of hollow building block used in forming the foundation of a wall construction, and the present application constitutes a division of my co-pending application Serial No. 231,762 filed November 7, 1927.

The primary object of the invention disclosed in the present application, as was also true of the invention in the above identified application, is to provide a form of hollow tile building block which will result in economy in labor cost of building walls therefrom and which, while economizing in the amount of material used, will at the same time provide equal, if not improved structural strength over walls formed of similar forms of hollow blocks.

In the above identified application there was particularly featured a form of building block generally known as a double wall block characterized by two parallel load sustaining walls connected by a cellular construction comprising curved webs and which block was particularly intended for use in forming the major portion of the wall above the foundation courses. The present disclosure features a similar form of three wall block available for use in forming a complete wall, but particularly designed, due to its abnormal width, to constitute part of a footing or foundation course.

Among the other objects of the wall feature of the invention is to provide a standardized form of foundation constructed from blocks resembling the blocks forming the major portion of the wall and on whch foundation may be positioned selectively, either one of two different widths of standardized wall forming blocks; which will provide for continuous cellular openings vertically disposed throughout the entire dimensions of the wall so formed and thus provide a wall structure which will facilitate the installation of pipes, conduits and the like, and the forming of block interlocking columns in selected sets of aligned cellular openings.

This object of the invention is attained by providing a duplex form of foundation block designed to provide a broad base or footing to the wall, and with the cells of either one of two different sizes of superposed blocks aligned with the corresponding cells of the foundation blocks.

Still another object of the invention is to provide a form of building block and walls therefrom which can be easily broken away in situ or preformed at the time of its manufacture to provide joints with partitions, floor supports and the like, and at the same time maintain all of the internal cellular reinforcement to strengthen the portion of the block weakened by the breaking away or omission of part of its outer face to form the requisite space in forming the joint or additional part.

Various other objects and advantages of the invention will be in part obvious from an inspection of the accompanying drawings and in part will be more fully set forth in the following particular description of one form of mechanism embodying my invention, and the invention also consists in certain new and novel features of construction and combination of parts hereinafter set forth and claimed.

In the accompanying drawings:

Figure 1 is a perspective view of a portion of a wall formed of foundation blocks of the three walled type featured in this application and superposed which is a two wall block featured in the above identified application; and

Figure 2 is a plan view looking down upon the foundation block shown in Fig. 1;

Considering the wall portion as a whole, it is made up of superposed tiers of rectangular building blocks 10, disposed in any conventional arrangement as by staggering the blocks of superposed courses as shown in Fig. 1. Referring to one of the superposed blocks 11, it is noted that it is formed primarily of three parts, an outer wall 14, an inner wall 15, preferably of equal width disposed parallel to each other and each wall containing a line of elongated cells 16 which in the instant case extend vertically. The cells are connected by a cellular construction

17 including four longitudinally spaced apart, relatively thin, transversely extending, curved webs 19, 20, 21 and 22. These webs are each substantially semi-circular in plan with their ends merging into the walls and forming the walls with somewhat thickened portions as indicated at 23, 24. The two central semi-circular webs 20, 21 coact to provide a preformed, central circular web, the diametrical opposite sides 27, 28 of which merge respectively into the walls 14 and 15 adjacent their midlengths. Differently defined, it is noted that the side walls 14 and 15 are connected by transversely extending webs which form two H-shaped structures. Each of the curved legs 19 and 20 of one of the H-structures, and 21 and 22 of the other H-structure are connected respectively by thin, longitudinally extending webs 29 and 30 which form the crotch portion of their respective H-forms.

In the particular form of the block 11 illustrated in Fig. 1, each of the walls 14 and 15 is two inches wide, the cellular structure is four inches wide, making a total width of eight inches and accordingly this block will be referred to hereinafter as an eight inch block.

Referring to the foundation block shown in plan in Fig. 2, there is illustrated a three wall foundation block 48 designed to constitute a footing of a superposed wall formed of courses of the two-wall blocks hereinbefore described. The block 48 is formed of three parallel transversely spaced apart walls 49, 50 and 51 with a cellular construction 52 between the walls 49 and 50 and a cellular construction 53 between the walls 50 and 51. Considering the part of the structure formed of the walls 49 and 50 together with the connecting cellular structure 52 it will be noted that this structure is identical with the eight inch blocks described in connection with Fig. 1. Considering the walls 50 and 51 of this foundation block together with the cellular structure 53 therebetween it will be noted that this structure forms a block similar to the block described in connection with the eight inch block of Fig. 1 except that the cellular structure 53 is of less width than the cellular structure 52.

In the illustrated form of the invention, the cellular construction 53 has the same width as the adjacent walls, that is two inches. Assuming therefore that the walls have a width corresponding to some unit length of measurement, then the four portions including the three walls 49, 50, 51 and the cellular structure 53 are of unit width while the cellular structure 52 is twice such unit width. By means of a single size of foundation blocks, such as is illustrated in Fig. 2, it is possible to superpose thereon two different widths of wall, that is an eight inch wall overlapping the block walls 49 and 50, or a six inch wall overlapping the block walls 50 and 51. In either suggested form of superstructure the cells of the foundation block may be disposed in vertical alignment with the corresponding cells of the superposed blocks as hereinbefore suggested for the superposed part of the wall.

By means of the use of a three wall foundation block such as is herein disclosed, it is possible to construct two standardized forms of walls from three standardized size blocks utilizing the three wall block as a foundation block to accommodate either one of the two different size blocks forming the superstructure of the wall. In either case there will be formed a wall with an L-footing and there will be retained the requisite alignment of the cores to accommodate pipes, conduits, mortar keys and the like from top to bottom of the fabricated wall.

It will be noted from the showing in Fig. 1 that the portion of the foundation block which projects beyond the superposed block presents a cored, relatively massive outer wall 51 and the adjacent cellular construction 53, both of which parts have the upper ends of their cores exposed to receive foundation fillings, floor keys and other parts usually engaging or supported from a wall footing.

I claim:

1. A hollow building block comprising three hollow parallel spaced apart walls of equal width, a pair of cellular constructions between the central wall and each of the two outer walls, each cellular construction including thin curved webs merging into the adjacent walls and integrally connecting the same, the width of the walls and each cellular construction being multiples of a common unit of measurement, and said cellular constructions having different widths.

2. A hollow building block comprising three relatively wide load carrying walls disposed in spaced apart parallel relation and each provided with a line of cells, an intermediate cellular construction integrally connecting the middle wall with each of the outer walls, each of said intermediate cellular constructions including relatively thin curved webs merging at opposite ends at acute angles into the adjacent wide load carrying walls, said cellular constructions being of similar design and with a part of one construction disposed transversely opposite the corresponding part of the other construction.

3. A hollow building block adapted to form a foundation block upon which one of two different widths of blocks of similar design may be superposed, said block comprising three relatively wide load carrying walls of equal width, and an intermediate cellular construction including curved relatively thin webs integrally connecting the middle wall

with the outer walls, the inner sides of the walls being substantially tangent to the adjacent ends of the concaved sides of the webs, one of said outer walls being spaced a greater distance from the middle wall than the spacing of the other outer wall whereby the central wall and either of the outer walls may be utilized selectively to support a superposed block.

4. A hollow building block provided with more than two, relatively wide load carrying parallel webs, each provided with cores, and a cellular construction integrally connecting adjacent walls, said cellular constructions each including relatively thin curved webs, each of said webs merging at opposite ends at acute angles into the adjacent load carrying walls and coacting therewith to provide a thickened portion to the wall and the ends of said curved webs in one construction being transversely opposed to the adjacent end of the similar web in the contiguous construction whereby an interior wall is reinforced on opposite sides by said opposing webs.

Signed at Milledgeville in the county of Baldwin and State of Georgia this 10th day of March A. D. 1928.

RUSSELL GLENN BONE.