Dec. 20, 1955 K. KURZ 2,727,382

HOLLOW FRANGIBLE BLOCK

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Fig. 1

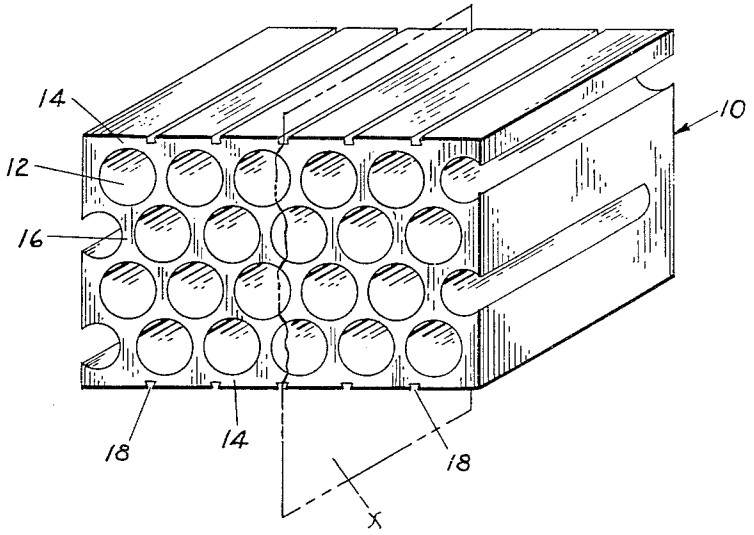


Fig. 2

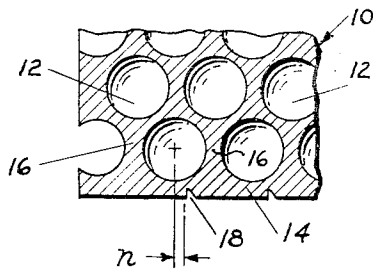
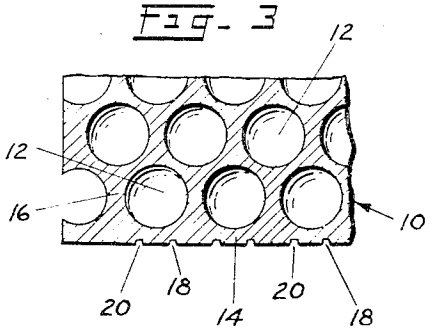


Fig. 3



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HOLLOW FRANGIBLE BLOCK

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1 Claim. (Cl. 72—41)

This invention relates to a frangible building block of the hollow tile type.

Score lines in the surfaces of building blocks are well known for forming weaker sections along which the block can be broken into small portions. Generally these score lines are placed in the thinnest portion of the tile wall to ensure a clean break at that point. Such placement of the score lines is not entirely satisfactory for blocks having a multiplicity of substantially cylindrical openings arranged in rows, with the openings in each row being staggered with respect to the openings in adjacent rows. The walls separating the cylindrical openings are not of uniform cross section, and a score line placed in the thinnest portion of the wall will not always cause a clean break through the entire block.

The object of this invention is to locate the score line with respect to an adjacent opening in the block, so that by fracturing the block along the score line, a clean break will be made through the block despite the fact that the openings in adjacent rows are staggered with respect to each other. In general, this is accomplished by locating the score line on the surface of the block and in the wall of an opening, the score line being laterally offset from the center of the opening a distance equal to at least one-half the thickness of the wall separating the opening from an adjacent opening. Thus, although the score line is not at the thinnest part of the wall it lies in, it is in the plane which comes nearest to passing through the thinnest wall points in the walls between the staggered openings in adjacent rows. A fracture started on the score line then continues through the block substantially in this plane to produce a clean break in the block.

The invention is described more fully with reference to the accompanying drawings, in which:

Figure 1 is a perspective view of the building block with the novel score line;

Figure 2 is a cross sectional view of a detail of the block; and

Figure 3 is a cross sectional view of a detail of a modified block.

The block **10** contains a multiplicity of cylindrical openings **12** arranged in rows, the openings in adjacent rows being staggered. Consequently, the wall **14** between the outer surface of the block and the outermost openings is not of uniform cross section, and the same

is true of the walls **16** between adjacent openings, the walls being thinnest at the nearest point to tangency between the openings and the outside surface on one hand, and between adjacent openings on the other hand. These walls **14** and **16** are formed so that the maximum thickness of each is less than the radius of each of the openings.

Score lines **18** are located in the surface of block **10** in wall **14** within the projected limits of hole **12**. As shown in Figure 2, these score lines are positioned a distance *n* laterally from a line extending through the center of opening **12**, this distance *n* being equal to at least one-half the thickness of the thinnest section of an adjacent wall **16**.

A plane *x* passing through score lines **18** on opposite faces of block **10** will then come closest to passing through the thinnest portions of the walls **16** between the holes in adjacent rows. When the block is fractured on line **18**, the fracture will continue through the block approximately in plane *x*, a substantially clean break being obtained.

In Figure 3, block **10** is provided with additional score lines **20** located on the opposite side of the hole centerlines from lines **18**, thus increasing the number of sizes into which block **10** can be broken.

The invention is applicable to all forms of blocks and hollow tile having staggered openings, and is especially adapted to sand lime blocks in which walls **16** have a minimum thickness ranging from 3 to 25 mm.

Having described the means by which the objects of the invention are obtained, I claim:

A hollow building block comprising a body having a plurality of parallel rows of equal size substantially cylindrical openings extending through said body with the openings of one row staggered and overlapped with respect to the openings in an adjacent row, said openings being uniformly spaced with the wall between two adjacent openings having a thin portion of less thickness than the radius of each opening, a score line forming a fracture line located in the external surface of the body above each of said openings adjacent said surface, and being laterally offset from a plane perpendicular to said surface and passing through the centerline of the adjacent opening a distance equal to at least one half the minimum thickness of said wall and the wall between said surface and the adjacent opening having having a thin portion of less thickness than the radius of said adjacent opening.

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