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(54) Improved brick for construction

(57) IMPROVED BRICK FOR CONSTRUCTION, of the type used in construction work for the building of different kinds of walls and partition walls, presenting a series of hollows, making it lighter, and a tongue and grooved outline allowing it to slot into other similar bricks. The brick is essentially distinguished by its preferably parallelopipedic form and in the tongue and grooved outlines presenting one or more lengthways channels in the form of a round arch, which correspond with similar grooves in the adjacent element, forming a series of vertical and horizontal channels between both bricks, suitable for the installation of electrical wiring, water, gas, central heating or other pipes, without the need to cut into or make recesses or other holes in the wall. The said channels being sufficiently wide to allow for the said installations, which are bordered by areas not affected by the channel, allowing adjacent bricks to be firmly joined together by means of a cement or plaster grout, glue or any other joining material. The channel existing around the brick may be single or multiple and parallel, suitable for the constitution of parallel and independent installations.

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Description

OBJECT OF THE INVENTION

[0001] The object of the present invention is to register an improved brick for construction, incorporating notable advances and advantages in relation to present bricks and construction systems for walls and partitions walls in buildings.

[0002] The invention specifically presents a brick which, having been assembled with other identical bricks in the construction of a wall, forms a series of horizontal and vertical channels which are suitable for running cables and pipes.

STATE OF THE ART

[0003] At the present time, in the building of walls and partition walls during the construction of all kinds of buildings, it is common practice to use both solid and hollow bricks. The walls, in turn, will usually contain built in installations, it being habitually the case that in order to fit such installations it is necessary to cut into or make recesses in the walls and partition walls in which to lodge piping or wiring, such being subsequently covered over with plaster or cement. This system for the emplacement of piping and wiring, after the partition wall has been built by means of cutting, to a greater or lesser depth, into the surface thereof, leads to the weakening of the wall and also compromises it in aesthetic terms.

DESCRIPTION OF THE INVENTION

[0004] The improved brick for construction, the object of this present registration, is characterised because it allows for the construction of walls and partition walls with the channels already incorporated, thus avoiding any need for cutting or making recesses in the wall in order to install gas, water or central heating piping and electrical wiring, with a consequent saving in labour and material costs, as well as cutting back subsequent maintenance time. In effect the brick presents a tongue and groove joint on the sides where it is joined to the other bricks that make up the partition wall, thus allowing it to be firmly held in place. The said tongue and groove runs around four sides of the brick, presenting in the centre a semicircular rabbet, in the form of a lengthways round arch, also on four sides. Thus when two bricks are lined up the tongue and groove forms a lengthways channel in which piping or cables can be housed. After assembling various bricks to make up the wall the channels can then be lengthened by each pair of adjacent bricks, making up either horizontal or vertical channels for such installations. Given that such installation work is usually carried out at the same time as the construction work, this can then be done simultaneously with the building of the partition walls. In this way it is no longer necessary to carry out subsequent operations, cutting into the partition walls or the walls, leading to economies in terms of time and labour, as well as improving the finishing work. The said channels can also be used after the partition wall has been built, given that the tongue and groove system allows the bricks to be joined together without the need for the channels to be filled or obstructed.

[0005] The brick may completely consist of conventional construction materials or others, and also includes a series of internal hollows, increasing lightness, and thermal and acoustic insulation. Although the main advantage is in the construction of partition walls the brick may also be presented in forms that are suitable for the construction of party walls, between spaces, such walls presenting a double set of parallel channels, each of which corresponds to the space on either side of the wall.

[0006] The partition wall also allows for a greater saving in construction materials, given that the joint between the bricks can be achieved by a simple process of slotting or with a thin grout of cement, plaster or even glue between the two surfaces in contact, with the use of additional masonry only being required in areas of contact between the partition wall and floors, ceilings or other walls, columns or partitions, in the corners at either end of the wall, or alongside doors, frames or windows, to ensure complete firmness.

[0007] Should it be the case that any type of joining material be used between the newly invented bricks, the channel will be left free, to avoid obstructions, and it will only be used on the adjacent contact surfaces, formed by the tongue and groove joint of these surfaces, thus forming a reinforcing base for the construction of the partition wall, and allowing for rapid, clean and economic manufacturing. The plumbing and central heating specialists can do the installation work before the wall is built, leaving it suspended in air, and then the bricklayers can build round it with bricks as the partition wall is built up.

[0008] The bricks can be manufactured with various channel diameters, thus allowing for a choice to be made, depending on the gauge of the installation to be fitted.

[0009] As a complement to the following description, and in order to help with a better understanding of its characteristics, the present descriptive report is accompanied by a set of drawings in which the figures, in an illustrative but not a restrictive sense, illustrate the most significant details of the invention.

BRIEF DESCRIPTION OF THE DESIGNS

[0010]

Figure 1:- Shows an elevation view of the brick

Figure 2:- Shows a side view of the brick, partly in section

Figure 3:- Shows a plan view of the brick

Figure 4:- Shows a detail of the assembly of the bricks, with the fitting of cables or other piping.

DESCRIPTION OF A PREFERRED EMBODIMENT

[0011] On viewing the above mentioned figures, and in accordance with the numeration adopted, we can observe a preferred embodiment of the invention, although it is not limited thereto, which consists of a body (1), preferably of a parallelopipedic form, which presents a tongue and groove joint system (3,4) on four sides, by which it is attached to adjacent bodies. In the centre of each tongue and grooved side (3,4) there is a lengthways channel (2), preferably in the form of a barrel vault, defining a space on each side that is sufficient for the tongue and grooved (3,4) stepped joint. The brick also presents, on the inside, a series of hollows (5) that limit its weight.

Claims

1. IMPROVED BRICK FOR CONSTRUCTION, of the type used in building work for the construction of partition walls and walls, presenting a series of hollows (5), making it lighter, and a series of tongue and groove joints allowing it to slot into other similar bricks. Distinguished because it consists of a body (1), of a preferably parallelopipedic form, presenting on four consecutive sides a tongue and grooved joint system with other adjacent bodies, presenting on two sides (3) a joint consisting of a stepped lateral recess the length of the two edges of both sides (3), and presenting another two sides (4) with a joint consisting of a lengthways mortise in the centre of the of the two sides, the different sides (3,4) slotting into each other, because the shaped spine of the sides (3), affected by the stepping, there is a lengthways groove (2), with a preferably circular section, the width of which does not affect the said spine as a whole, between the two rabbets; because at the end of the sides (4) affected by the mortis there is a lengthways groove (2), with a preferably circular section; and because when two tongue and grooved bricks are brought together the corresponding slots (3,4) of the respective grooves (2) form a lengthways channel suitable for fitting electrical wiring or piping (6) for water, gas, central heating, or of any other kind.

2. IMPROVED BRICK FOR CONSTRUCTION, according to claim 1, distinguished because the joining of the bricks to make up a wall or partition wall in turn defines a plurality of horizontal and vertical channels (2), determined by the joint between the tongue and grooved sides (3,4) of the said bricks, the said channels (2) being linked to house installations (6); because the surface of the tongue and grooved sides (3,4) of the brick present a surface that is not affected by the groove (2) and which is sufficient to ensure a firm union through the addition of a grout: of cement, plaster, glue or any other joining material; and because, in an alternative embodiment the brick can present two or more parallel grooves (2) on the tongue and grooved sides (3,4), in order to constitute parallel and independent installations.

FIG 1.

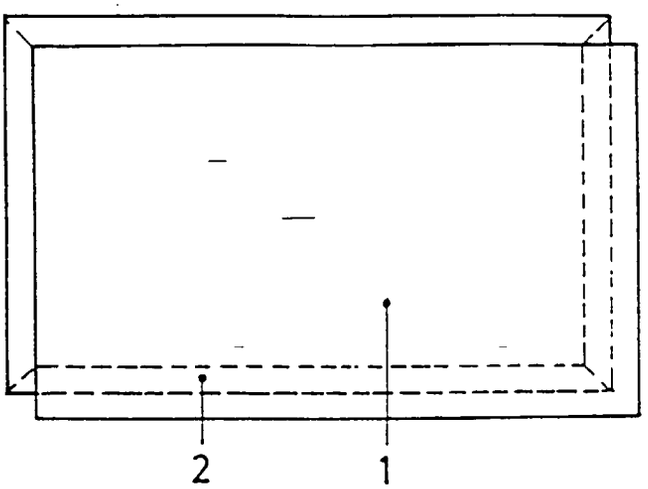

FIG 2.

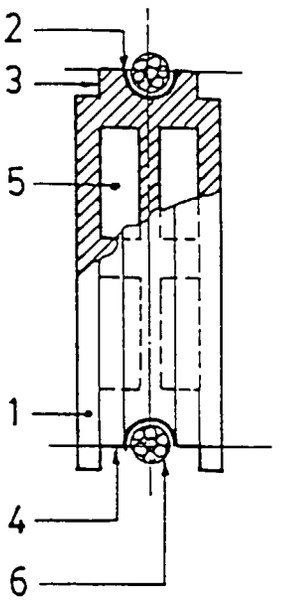

FIG 3.

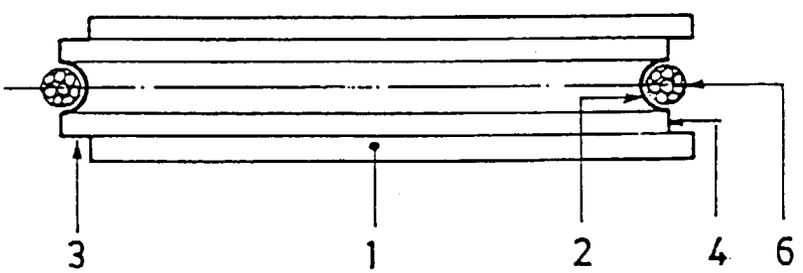

FIG 4.