No. 704,727. Patented July 15, 1902.

C. WORTH.

TILE.

(Application filed Apr. 3, 1902.)

(No Model.) 2 Sheets—Sheet 1.

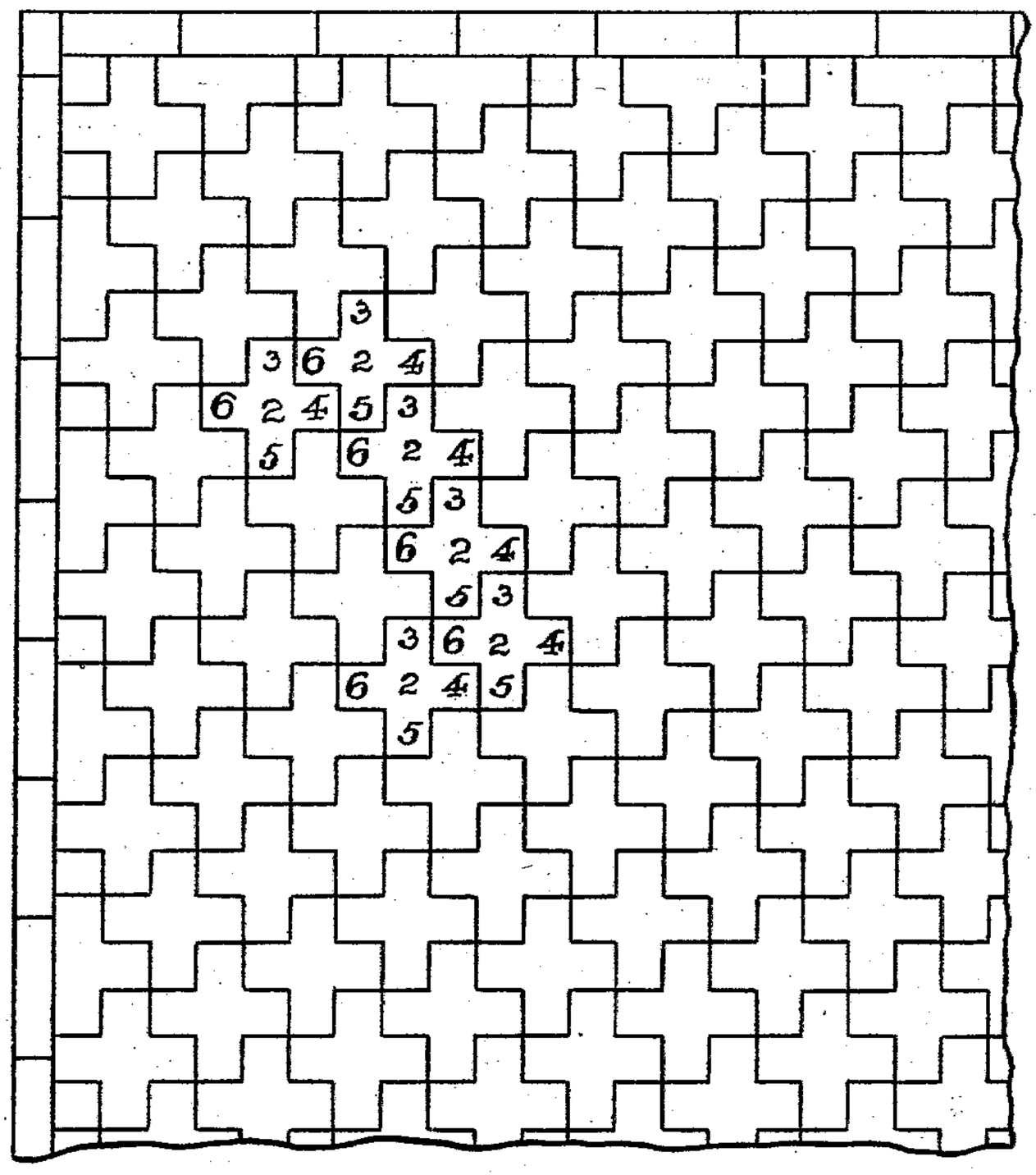

FIG. 1

WITNESSES:

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H. B. Fraentzel

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(No Model.) 2 Sheets—Sheet 2.

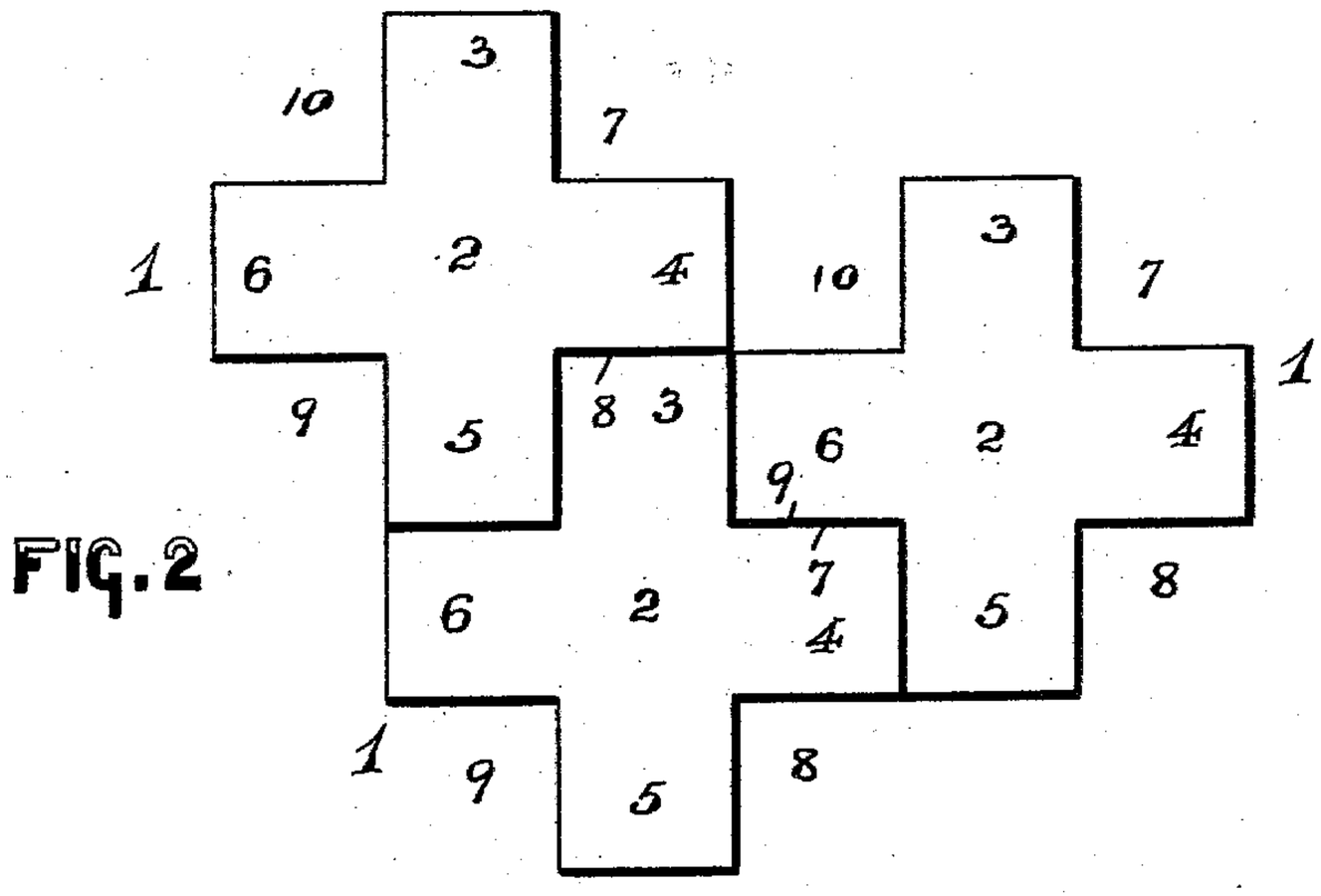

FIG. 2

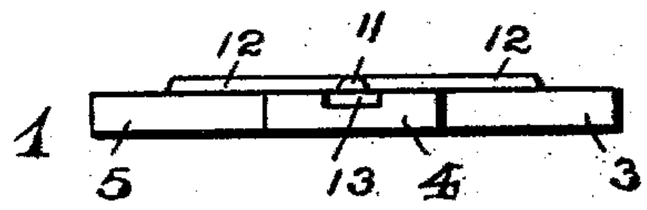

FIG. 4

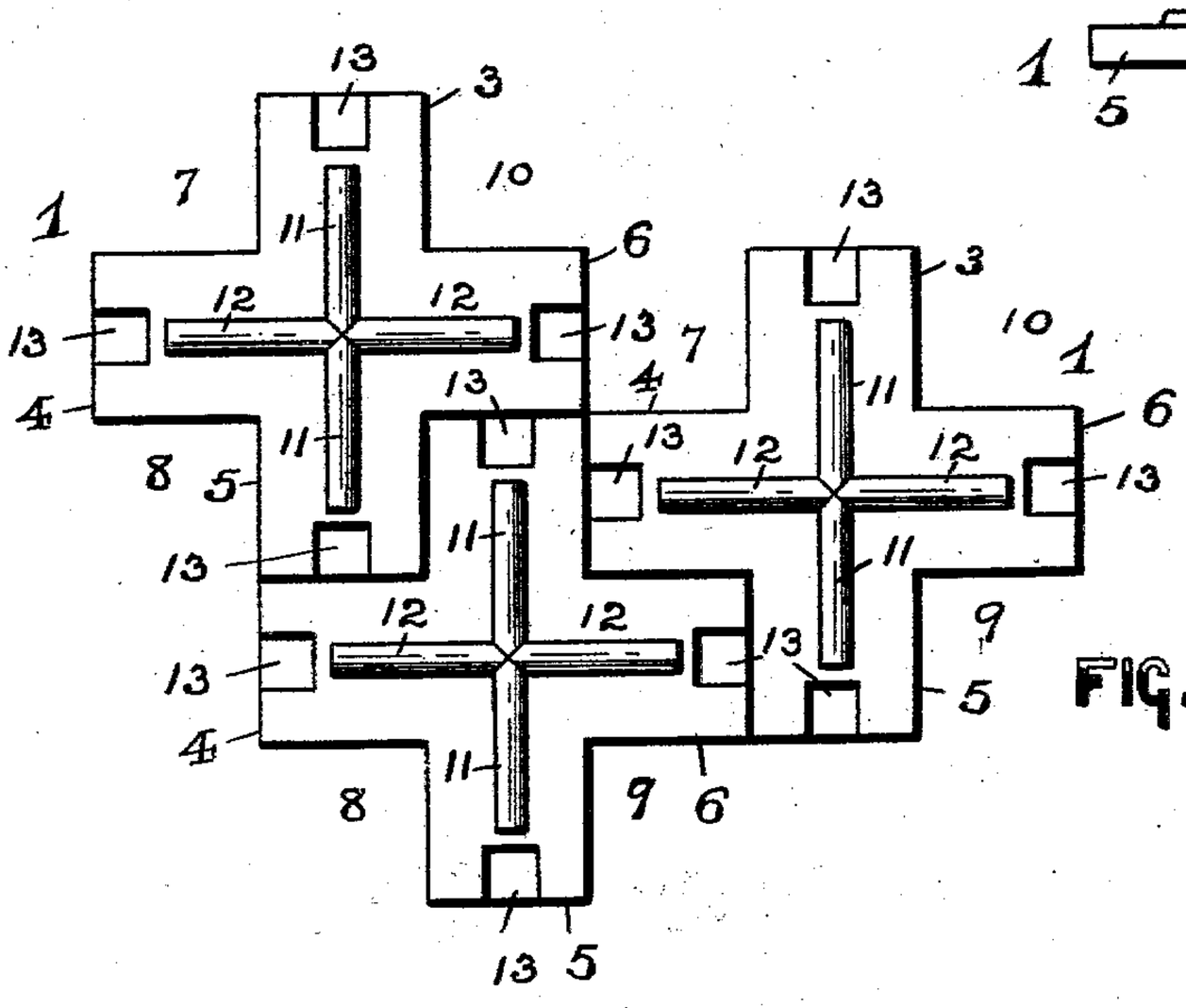

FIG. 3

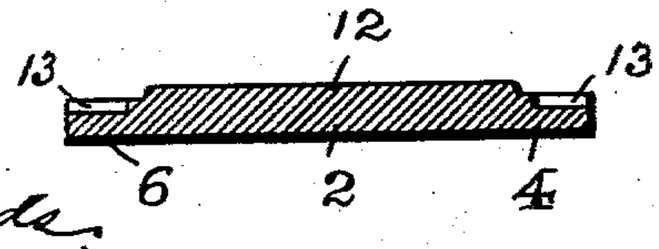

FIG. 5

WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

CHARLES WORTH, OF NEWARK, NEW JERSEY.

TILE.

SPECIFICATION forming part of Letters Patent No. 704,727, dated July 15, 1902.

Application filed April 3, 1902. Serial No. 101,173. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WORTH, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Tiles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The present invention has reference to improvements in tiling, and the invention relates more particularly to improvements in that class of tiling where a number of tiles are arranged against the face of a sheet of paper, the said sheet of paper being cemented upon the faces of a number of assembled tiles, so as to enable the workman to lay a large number of such assembled tiles at one time and then after the tiles have been laid and are set in a cement or suitable foundation washing away the said sheet of paper to produce a finished and tiled surface. In the present art these assembled tiles have all been of a square or rectangular configuration, and the serious objection has been, owing to the faces of the individual tiles being covered by the sheet of paper, that the workman has great difficulty in laying the tiles in such a manner after the paper has been removed that the joints of the contiguous tiles will form perfectly-straight lines. It has been found in practice that this arrangement of assembled tiles in laying or setting them in the cement foundation often becomes distorted, whereby the finished tiling has an unsightly and unfinished appearance.

The objects of the present invention are to overcome these serious objections and to produce a number of assembled tiles, all of which when laid produce zigzag joints, thereby overcoming the difficulty of producing joints in contiguous straight lines.

Other objects of the present invention are to produce tiles of a peculiar configuration which may be assembled upon paper in the manner heretofore in use by tile-makers, but which when laid and when the paper has been removed will produce a perfect and finished surface, and, furthermore, to provide a simple construction and arrangement of assembled tiles which will enable the workman to lay the same with greater rapidity than is now ordinarily the case.

A further object of the present invention is to provide a novel construction of tile which is more readily laid in the cement foundation and is also securely held in place against any "side slip" or sliding motion in the soft cement while placing the tile or tiles in position.

The invention therefore consists in the novel construction of tile hereinafter more fully described and also in the novel arrangement and combination of assembled tiles, all of which will be set forth in detail in accompanying specification and then finally embodied in the various clauses of the claim, which form an inseparable part of the present specification.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a portion of a surface laid with tiles made according to the principles of the present invention. Fig. 2 is a face view of a number of such assembled tiles, and Fig. 3 is a rear view of the same. Fig. 4 is an edge view of one of the tiles embodying the novel features of my invention, and Fig. 5 is a vertical cross-section of one of said tiles.

Similar characters of reference are employed in all of the said hereinabove-described views to indicate corresponding parts.

In the said drawings the reference character 1 indicates one of the complete tiles. Each tile consists, essentially, of a main or central body portion 2, provided with radiating members 3, 4, 5, and 6, substantially as illustrated. In the present construction each tile is made cross-shaped, the said four members 3, 4, 5, and 6 being arranged at right angles to one another and the surface area of each individual member 3, 4, 5, or 6 being equal to the surface area of the said main body 2 and, furthermore, the surface area of each individual member 3, 4, 5, or 6 being equal to the surface area of the angular space at each corner portion 7, 8, 9, or 10, formed, respectively, by each pair of members 3 and 4, 4 and 5, 5 and 6, and 6 and 3, as will be clearly understood from an inspection of Fig. 2 of the drawings.

Although the form and configuration of tile represented in the accompanying drawings is the preferred form, still it will be clearly understood that I do not intend to limit my present invention to the exact shape and arrangement of the members 3, 4, 5, and 6 with the body portion 2, as herein shown, for I am fully aware that the said arrangement and shape of the members 3, 4, 5, and 6 may be changed without departing from the scope of my present invention.

Each tile is also made upon the back with a pair of reinforcing ribs or projections 11 and 12, which cross each other, preferably, in the manner illustrated in Fig. 3 of the drawings, and each member 3, 4, 5, and 6 is also made with a suitable depression or recess 13 for arranging therein some of the cement of the foundation in which the tiles are laid to prevent any side slip or side motion of the tiles and for more securely retaining each individual tile in its position after the cement has hardened and the usual paper covering over the faces of the tiles has been removed. The usual way of filling these depressions or recesses 13 with the cement is to flow the cement in a thin and fluid condition directly into the crevices or spaces forming the joints between any two tiles, whereby the said cement also flows into the said recesses 13 and fills the same. When the cement hardens, it produces a firm lock which securely holds each tile in its proper position against accidental displacement.

From an inspection more especially of Fig. 1 of the drawings it will be seen that when the tiles have been laid down there will be no joints in continuous straight lines, but that the joints run in diagonal and zigzag lines, which provides an ornamental appearance and overcomes the unfinished appearance of a tiled surface the tiles of which are laid so as to form continuous joints in long and unbroken lines, unless the tiles are most carefully laid to avoid an uneven line, which is an utter impossibility with tiles laid in series and having their faces covered over by sheets of paper.

Having thus described my invention, what I claim is—

1. A tile, comprising, a central and main body portion, and a set of members radiating in different directions from said main body, the surface area of each individual radiating member being equal to the surface area of said main body portion, the tile being of an approximately cross-shaped configuration, providing open spaces between each pair of adjacent radiating members, for the reception of a radiating member of another tile when laid in the cement of a flooring, substantially as and for the purpose set forth.

2. A tile, comprising, a central and main body portion, and a set of members radiating in different directions from said main body, the tile being of an approximately cross-shaped configuration, providing open spaces between each pair of adjacent radiating members, for the reception of a radiating member of another tile when laid in the cement of a flooring, each radiating member being provided in its rear surface with a cement-receiving depression or recess, substantially as and for the purpose set forth.

3. A tile, comprising, a central and main body portion and a set of members radiating in different directions from said main body, the tile being of an approximately cross-shaped configuration, providing open spaces between each pair of adjacent radiating members, for the reception of a radiating member of another tile when laid in the cement of a flooring, each radiating member being provided in its rear surface with a cement-receiving depression or recess, and the surface area of each individual radiating member being equal to the surface area of said main body portion, substantially as and for the purpose set forth.

4. A tile, comprising, a central and main body portion, and a set of members radiating in different directions from said main body, a reinforcing rib or projection connecting the rear of the said main body with the said radiating members, and each radiating member being provided in its rear with a cement-receiving depression or recess, substantially as and for the purpose set forth.

5. A tile, comprising, a central and main body portion, and a set of members radiating in different directions from said main body, a reinforcing rib or projection connecting the rear of the said main body with the said radiating members, and each radiating member being provided in its rear with a cement-receiving depression or recess, and the surface area of each individual radiating member being equal to the surface area of said main body portion, substantially as and for the purpose set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 29th day of March, 1902.

CHARLES WORTH.

Witnesses:
FREDK. C. FRAENTZEL,
GEO. D. RICHARDS.