No. 786,598. PATENTED APR. 4, 1905.

W. PORTEN.

BUILDING BLOCK WALL CONSTRUCTION.

APPLICATION FILED FEB. 18, 1904.

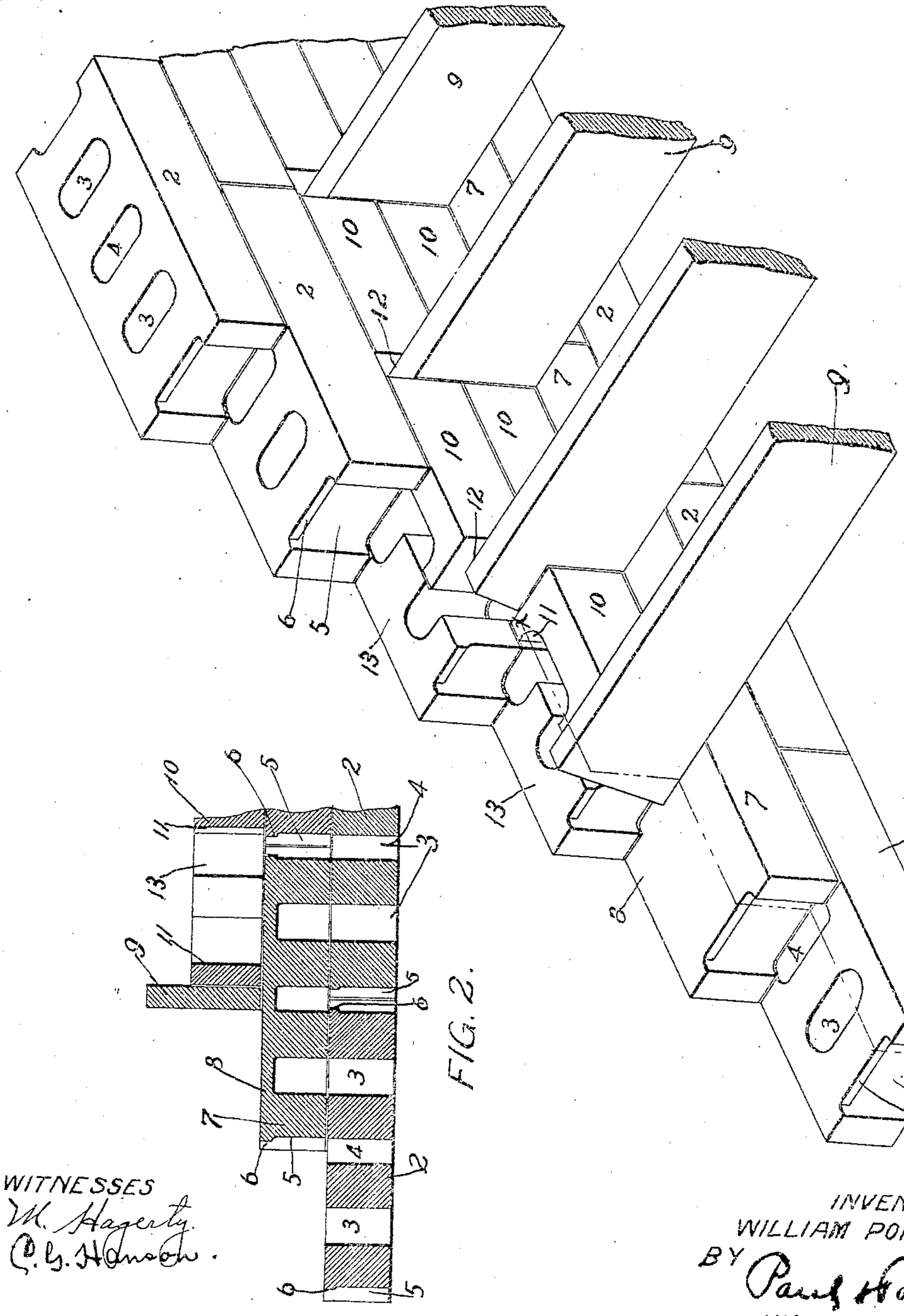

FIG. 1.

FIG. 2.

WITNESSES
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No. 786,598. Patented April 4, 1905.

UNITED STATES PATENT OFFICE.

WILLIAM PORTEN, OF ST. PAUL, MINNESOTA.

BUILDING-BLOCK WALL CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 786,598, dated April 4, 1905.

Application filed February 18, 1904. Serial No. 194,157.

To all whom it may concern:

Be it known that I, WILLIAM PORTEN, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Building-Block Wall Constructions, of which the following is a specification.

My invention relates to exterior or interior walls composed of building-blocks; and the object of the invention is to provide means whereby the floor-joists will be securely supported in the wall and will present a neat finished appearance therewith.

The invention consists generally in various constructions and combinations, all as hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of a section of a wall embodying my invention. Fig. 2 is a section on the line *x x* of Fig. 1.

In the drawings, 2 represents a building-block having the vertical core-holes 3 and 4 arranged, respectively, near the ends and the middle of the block. Each block is provided in its ends with vertical recesses 5 and ledges 6 for convenience in handling the blocks. The wall is begun at the foundation with courses made up of these blocks and carried up to a point within one course of the floor-joists, where I provide a block 7 similar to the one described, except that the core-holes therein are closed at the top by a wall 8, which renders the top of the block imperforate and provides a flat substantial surface for the lower edges of the floor-joists 9, whose ends are placed upon and extend to a point near the middle of the block 7. By closing the upper ends of the core-holes and making a solid upper surface for the blocks 7 I am able to provide a solid bearing-surface for the ends of the floor-joists and insure the equal distribution of the floor-load over the full width of the wall. Beam filling-blocks 10, having their inner faces flush with the inner surface of the wall and outer concave faces 11, are provided between the ends of the floor-joists. These blocks are usually about six inches in depth, and with two-by-twelve joists there will be two courses of the blocks from the lower to the upper edges of the joists. In the drawings I have shown two-by-ten joists, and consequently the upper course of filling-blocks will extend a little above the upper edge of the joists, leaving an opening 12, which is filled with cement.

Upon the surface of the block 7 I provide a course of split blocks 13, having their outer surface flush with the outer surface of the wall and corresponding substantially to a section of the block 2 formed by dividing it longitudinally through the center. The core-holes in the block 13 are opposite the concave face of the block 10 and form therewith an air-space in the wall. This air-space in the different courses of the blocks prevents the moisture from passing through from the outside to the inside of the wall and acts as a very efficient safeguard against frost. Above the courses composed of the beam filling and split blocks I provide additional courses of the blocks 2 and continue the same until another series of floor-joists is reached, when the construction described is repeated.

I claim as my invention—

1. A wall composed of blocks laid in courses one above another and having vertical core-holes, the holes in one course registering with the holes in the contiguous courses, a course of blocks laid upon said first-named course opposite the floor-joists and having vertical core-holes that are closed at the top to form a substantial support for the ends of the joists and insure the equal distribution of the load, and beam filling-blocks provided between the ends of the joists.

2. In a wall, a series of building-blocks having imperforate tops, a series of joists having their ends resting upon said blocks and extending to a point near the middle thereof, a series of beam filling-blocks provided between the ends of said joists and having their inner faces flush substantially with the inner surface of the wall and their outer faces near the middle of said first-named blocks, substantially as described.

3. In a wall composed of building-blocks, a series of blocks having vertical core-holes closed at their upper ends, a series of floor-joists supported at their ends upon said blocks,

beam filling-blocks provided between the ends of said joists and having flat inner faces flush substantially with the inner surface of the wall and outer concave faces, and split course-blocks having core-recesses in their inner faces and flat outer faces located between the ends of said joists and the outer surface of the wall.

4. A wall composed of blocks having vertical core-holes and laid in courses one above another, the holes in one course registering with those in the contiguous courses, blocks having core-holes provided with open lower ends and closed upper ends and registering with the holes in said first-named blocks, floor-joists having their ends resting upon said last-named blocks and extending to a point near the middle thereof, beam filling-blocks provided between the ends of said joists, and split course-blocks arranged between the ends of said joists and the outer surface of the wall, substantially as described.

5. A wall composed of building-blocks arranged in courses one above another and having core-holes, those in one course coinciding with the holes in the contiguous courses and the blocks opposite and below the ends of the floor-joists having the upper ends of their core-holes closed, beam filling and split blocks provided between and opposite the ends of the floor-joists and having suitable core-holes that are adapted to register with the holes in blocks similar to said first-named blocks laid above them.

6. A wall composed of blocks 2 laid in courses one above another and having vertical core-holes, a course of blocks 7 laid in the wall between the courses of blocks 2 and also having vertical core-holes and closed upper surfaces whereon the ends of the floor-joists are supported, and courses of split blocks 13 laid opposite the ends of the floor-joists between the courses of blocks 7 and 2, substantially as described.

In witness whereof I have hereunto set my hand this 13th day of February, 1904.

WILLIAM PORTEN.

In presence of—
RICHARD PAUL,
M. HAGERTY.