July 22, 1924. 1,502,046

O. F. MANN

BRICKLAYING DEVICE

Filed April 10, 1922

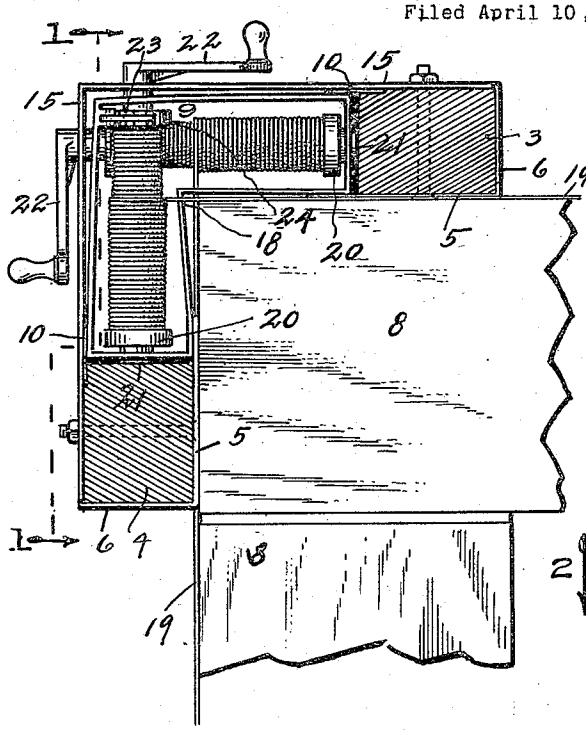


Fig. 2.

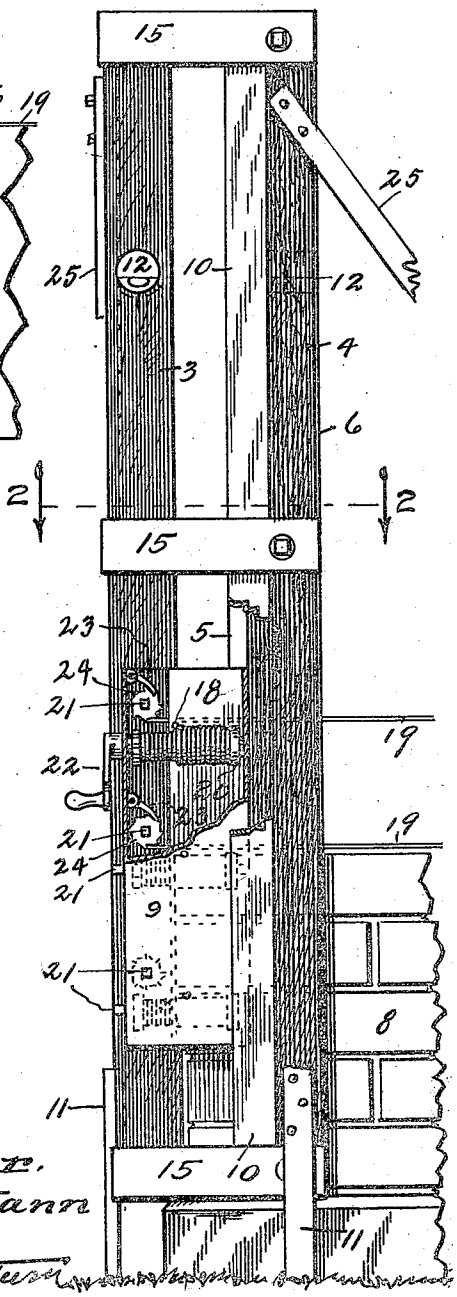


Fig. 1.

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UNITED STATES PATENT OFFICE.

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BRICKLAYING DEVICE.

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To all whom it may concern:

Be it known that I, OSCAR F. MANN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Brick Laying Devices, of which the following is a specification.

The object of this invention is to provide a simple guiding device for workman, to be used in laying brick in vertical walls with square corners and in true horizontal courses separated by uniform mortar-joints; for increasing the quantity of work done in a day, making it easy for an unskilled workman to do good work; reducing the cost of building construction, and relieving the housing problem with which our country is confronted.

I accomplish the above and other objects which will hereinafter appear, by the mechanism illustrated in the accompanying drawing, in which—

Fig. 1, is a view in side elevation and partial vertical section, on the line 1—1 of Fig. 2 of my invention in operative position at the corner of a proposed wall, and Fig. 2 is a horizontal section on the line 2—2 of Fig. 1.

The frame of my device comprises two, preferably wooden vertical members 3 and 4, which are held in planes at right angles to each other and respectively parallel with two walls cornering there, by metal straps 15, here shown as three in number, but the number of straps used will depend upon the lengths of the vertical members 3 and 4. Plates 5, preferably with a flange 6 at right angles, are secured to the members 3 and 4, with the plates on those sides of said members where they will contact the new walls 8, 8. The plates 5 are wide enough to extend beyond the wooden members toward the corner of the wall, as shown in Fig. 2, to act as inside guides for a movable corner gauge and line-carrier-box 9. Outside guides for the box 9 are formed by vertical metal strips 10 as shown.

The frame members, thus joined together as a unit, are plumbed where the corner wall of brick is to be laid, and is anchored at the bottom by nailing the frame-posts 3 and 4 to stakes 11 driven into the ground. The upper end of the plumbed frame is held by diagonal wooden braces 25 nailed to the tops of the wooden members 3 and 4, and it is to particularly facilitate the nailing in holding the frame in plumbed position that the members 3 and 4 are made of wood.

Spirit levels 12 are mounted in the respective frame members 3 and 4, as shown, to assist in plumbing the frame.

The corner-gauge box 9 is preferably made of sheet metal L-shape in cross section, the members of the L being hollow and having their ends seated against the respective members 3 and 4, with a sliding fit between metal guides 5 and 10. The inner walls of the box 9 serve as guides for laying the corner bricks, and to avoid direct interference and obstruction in placing the bricks, the walls are made oblique, inwardly of the box, as shown in Fig. 2. The outside walls of the box are purposely made inwardly oblique of the box, as shown, to insure clearance of the box within the angles of the strips 15.

Openings 18 are formed in the inner walls of box 9 for the passage of lines 19 which are placed and stretched as guides to the workman in laying the brick in courses. The ends of the lines remote from the box 9 are made fast to a nail or the like in the usual manner, or to another corner box and the other end is secured to a spool 20 upon which the surplus line is wound to tighten the outside portion of the line. The shaft 21 of spool 20 is journaled in the walls of the box 9 and has a square projecting end to receive a hand-crank 22 for rotating the shaft and spool for tightening the line. A pawl 23 and ratchet 24 serve to hold the tension.

I have here shown this line-winding mechanism in triplicate whereby three course of brick may be laid at one setting of the box, but this number may be more or less, as desired. The cranks are removable and the projecting ends of the shafts 21 are short enough to pass the straps 15 in setting the box.

In the operation of my invention the frame is set and plumbed for each corner of the wall to be laid, and a box 9 is moved in its guides to the right elevated position so the lines 19, running in two directions at right angles and clear around the building will locate the brick courses. The lines 19 are then set and the wall is laid a course at a time until the top line is passed. Then the box is raised to the next higher position where the lines are set and the wall carried

up as before. If the tautness of the lines does not hold the box securely enough in place it may be positively retained in the given position by driving a nail under it into one of the wooden frame members.

While I have here shown the best form of my invention now known to me, it is capable of modification in details of construction and I do not desire to be limited to the exact form shown or any more than is required by the appended claims; and what I claim is:

1. In a device for laying brick, a pair of vertical frame members spaced apart on opposite sides of a corner of a wall, metal straps securing the members together, and an angular gauge-box slidingly supported by hand between said frame members.

2. In a device for laying brick, a plurality of vertically spaced apart frame members, having vertical guides in adjacent sides, a plurality of metal straps uniting said vertical members, a gauge-box slidingly supported in the guides by said frame members, work lines entering the box and means in the box for making the lines taut.

3. In a device for laying brick, a pair of vertical frame members spaced apart on the opposite sides of a corner of a wall, and having guides in their adjacent sides, straps connecting the frame members together, an angular gauge-box sliding vertically in the guides and supported by the frame members, lines carried by the box for marking courses of brick in the wall and means carried by the box for making the lines taut.

4. In a device for laying brick, a pair of vertical frame members spaced apart on opposite sides of a corner of a wall, and having guides in their adjacent sides, straps connecting the frame members together, an angular gauge-box sliding vertically in the guides and supported by the frame members, lines carried by the box and extending in planes diverging from each other for marking courses of brick in the wall, and means for drawing the lines taut at the box.

Signed at Indianapolis, Indiana, this 1st day of March, 1922.

OSCAR F. MANN.