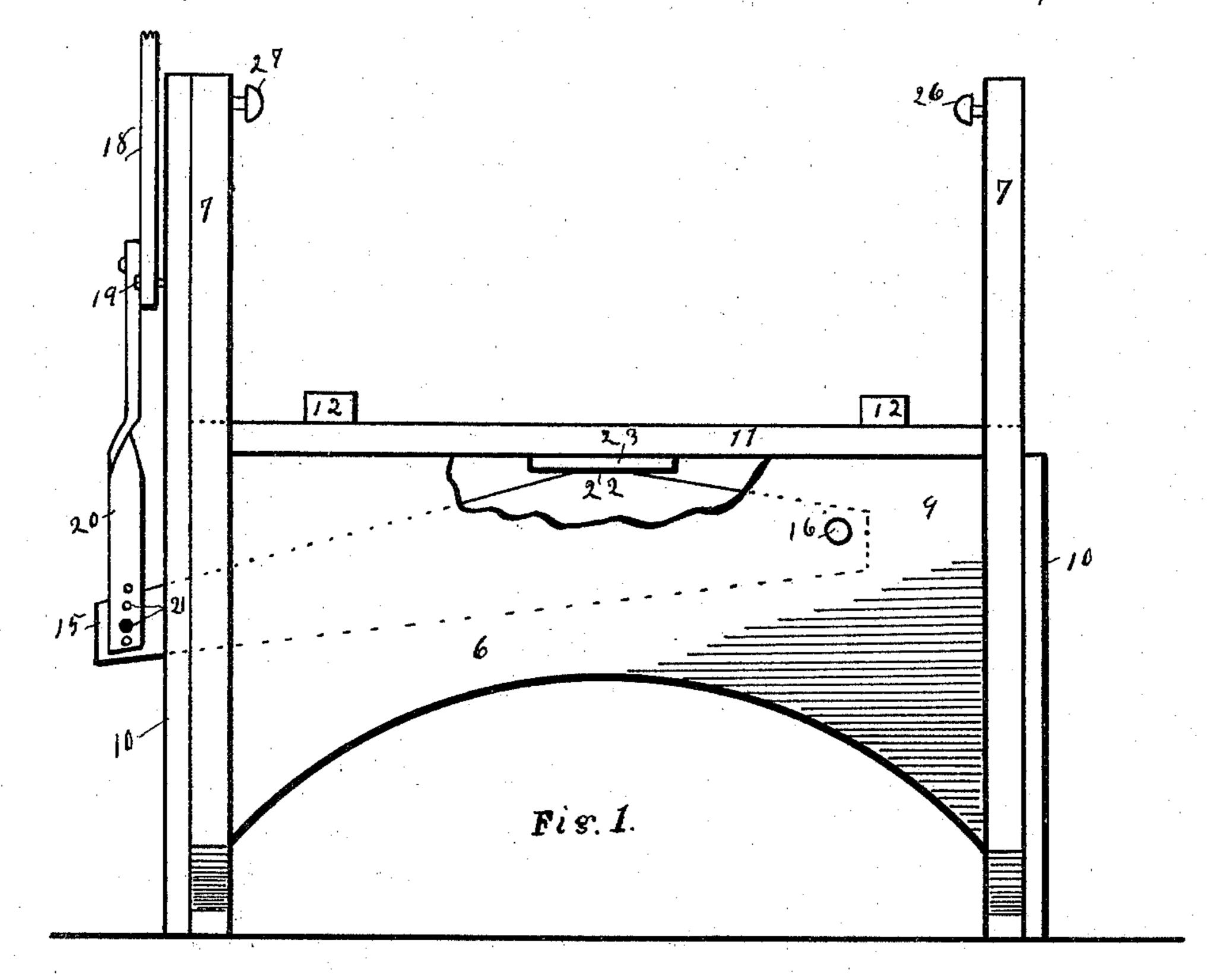
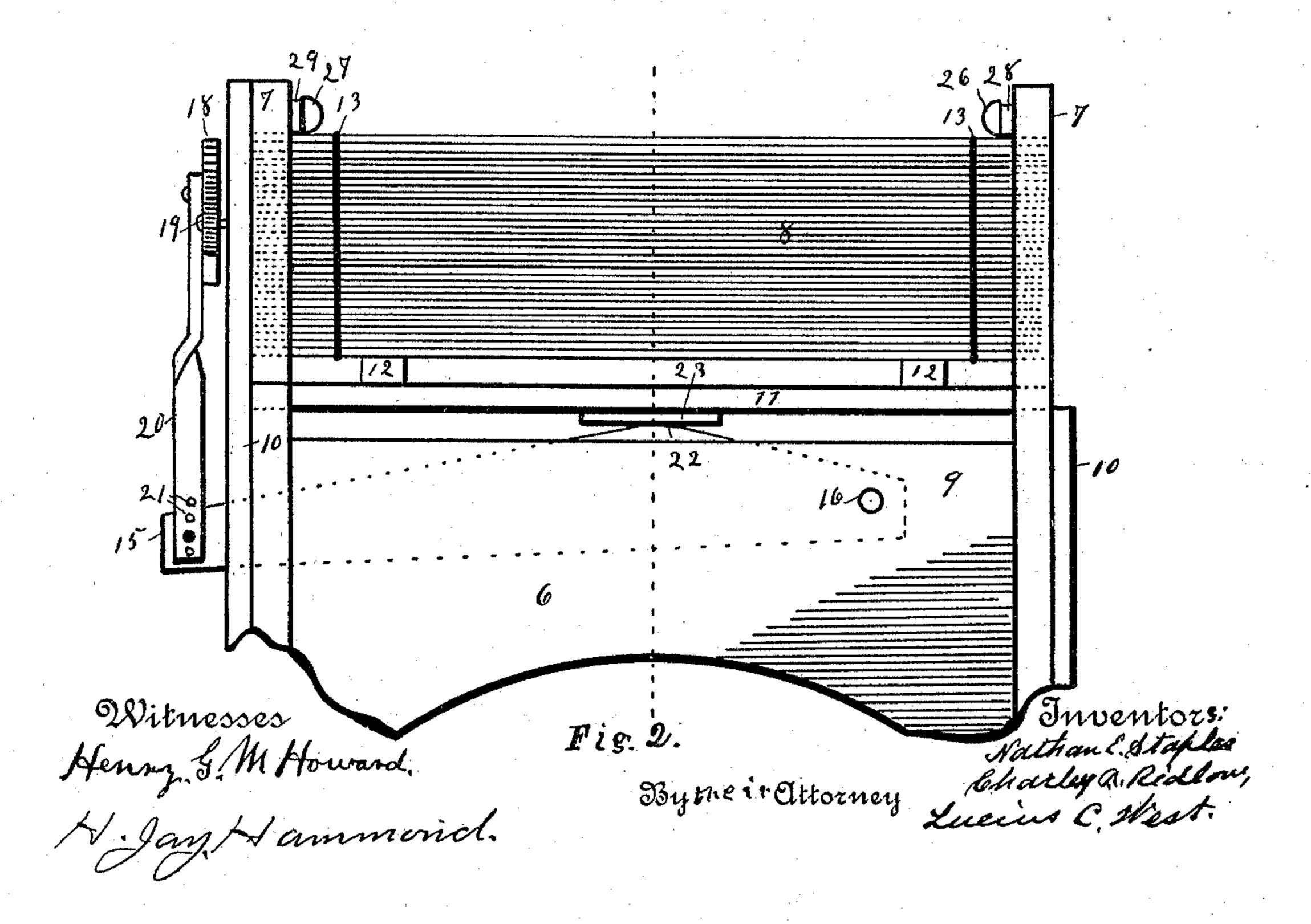
N. E. STAPLES & C. A. RIDLON. STAVE PRESS.

No. 584,608.

Patented June 15, 1897.

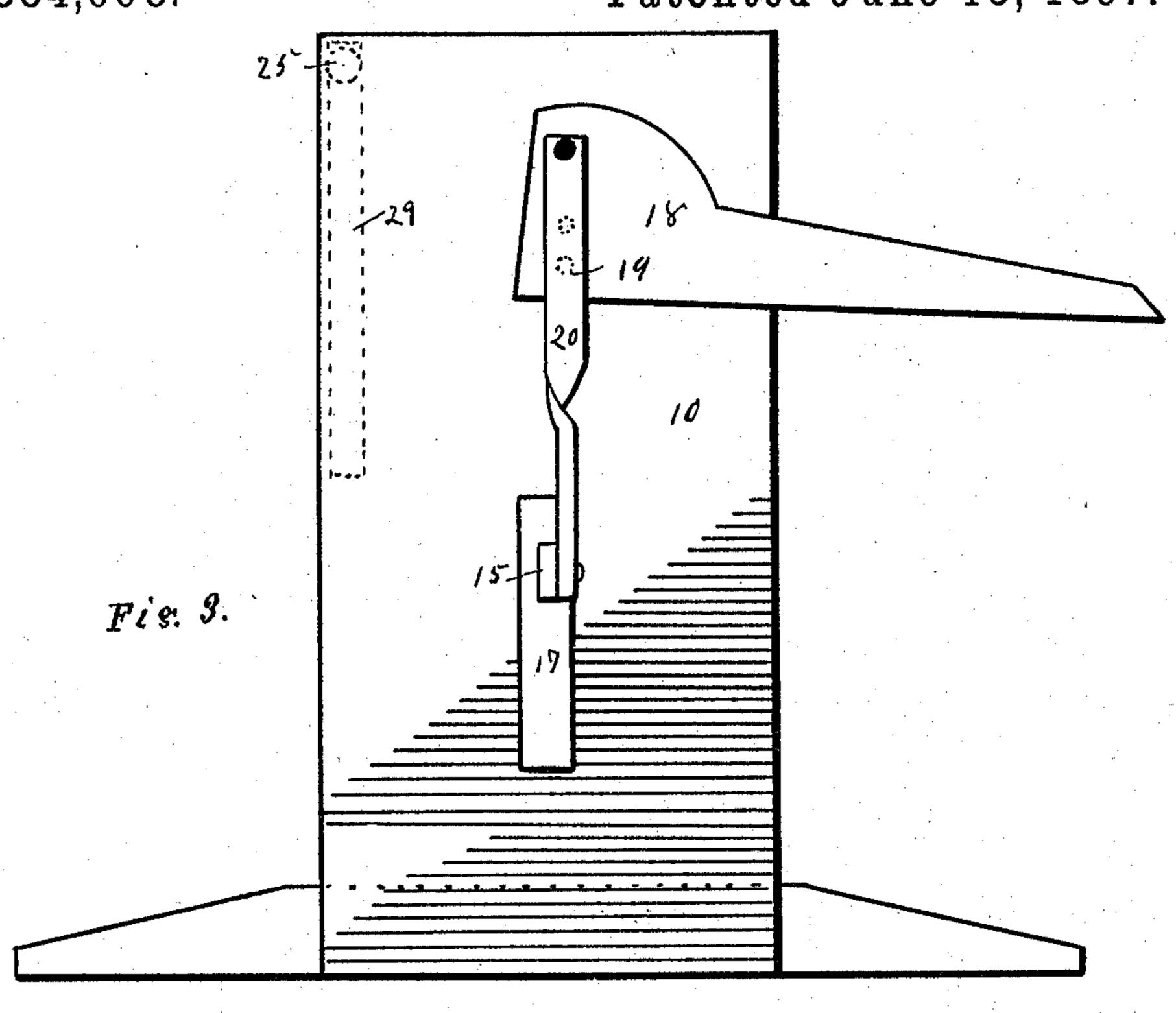


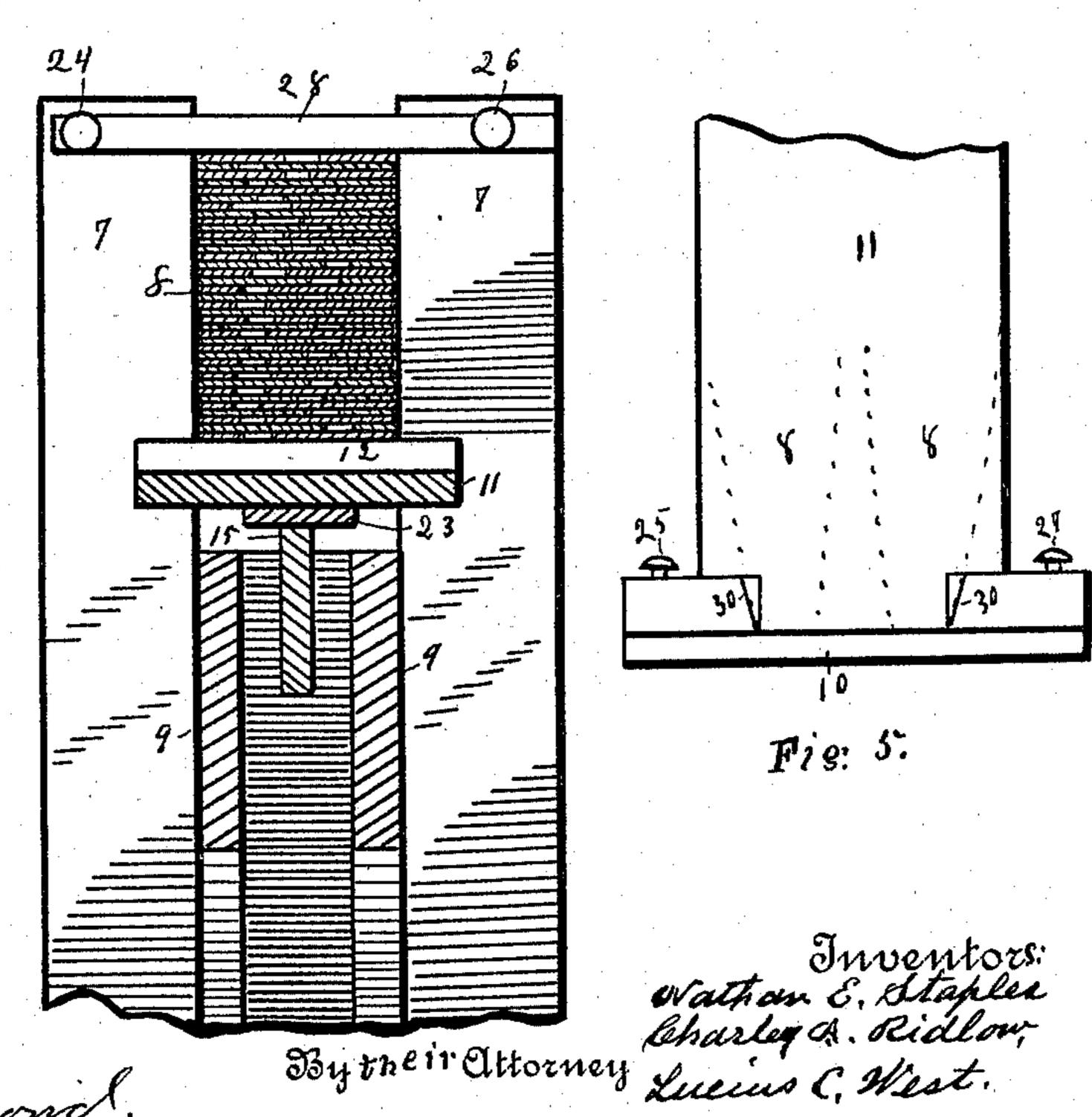


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Fis. 4.

Witnesses Henry G.M. Howard. W. Jay Hammond.

## United States Patent Office.

NATHAN E. STAPLES AND CHARLEY A. RIDLON, OF CADILLAC, MICHIGAN.

## STAVE-PRESS.

SPECIFICATION forming part of Letters Patent No. 584,608, dated June 15, 1897.

Application filed April 11, 1896. Serial No. 587,134. (No model.)

To all whom it may concern:

Be it known that we, NATHAN E. STAPLES and CHARLEY A. RIDLON, citizens of the United States, and residents of Cadillac, in the county of Wexford, State of Michigan, have invented a new and useful Stave-Press, of which the following is a specification.

This invention relates to stave-presses having a rack portion in which to pack the staves on an upwardly-movable platform at the bottom of said rack portion and means for moving said platform upward in the operation of pressing the staves in a bundle.

The object of this invention consists in the changes of construction, all as more particularly described and claimed below.

Of course it is well understood what the object of pressing and tying the staves into a bundle is at the place of manufacture, and our invention only has to do with the means we employ for this purpose.

In the drawings forming a part of this specification, Figure 1 is a side elevation of the press, parts being broken away; Fig. 2, same, showing a bundle of staves in the press and illustrating the operation; Fig. 3, an end elevation of Fig. 2, looking from a point at the left; Fig. 4, a section on line a a in Fig. 2, looking from a point at the left; and Fig. 5 is a plan of the right-hand end of Fig. 1.

Referring to the parts of the drawings pointed out by numerals, 6 is the body of the press, having a post 7 at each four corners projecting above said body and constituting 35 the rack portion of the press. The staves 8 are packed between these posts, as in Figs. 2 and 4. The body portion consists of the side pieces, 9 and end closures 10, one of which the left-hand one in Figs. 1 and 2—extends up 40 to the top of the posts 7 to form a stop or heading against which one end of the staves 8 are placed, so as to make them even at the ends in the bundle. On the body in the bottom of the rack is a platform 11. It fits loosely 45 between the posts 7 and is notched in at the corners, as in Fig. 5, to fit on two sides of the posts. It is provided with a bolster at each end at 12 upon which the staves rest, leaving a space between the rack and the platform, as 50 in Fig. 2, so that the bands or cords 13 can be passed beneath when fastening them around the bundle of staves 8 after they are pressed.

On the under side of the platform in the center is a wearing-plate with which the lever 15 comes in contact, Figs. 1 and 2. The lever 15 55 is pivoted at one end to the body or side pieces 9 at 16 and is between the two side pieces, as in Fig. 4. One end extends through a vertical elongated slot 17, through the end board of the body, Fig. 3.

An eccentric lever 18 is pivoted at 19 to the end board or closure of the rack, and this eccentric lever is connected to the lever 15 by a connecting - rod 20, pivotally attached at each end to said parts, as in Figs. 1, 2, and 3. 65 The lower end of said rod 20 has a series of adjusting-holes 21, so that the proper adjustment of the levers 15 and 18 can be had. It will be observed that the upper side of the lever 15, near the longitudinal center, is provided with a hump or projection 22, which comes in contact with the wearing-plate 23 of the platform 11.

The inner edges of the posts 7 are preferably slanted outward in a direction toward each 75 other, as at 30, Fig. 5. The object of this is to accommodate the shape of the staves, which are smaller at the ends than in the center, as the dotted stave in said Fig. 5 will show.

To one of the two posts 7, at each end of the 80 press, is pivoted at 24 and 25 a binding-bar 28 and 29, which catches at its other end beneath the catches 26 and 27. One of these binding-bars 29 is shown dotted in Fig. 3.

In the operation the staves 8 are placed in 85 the rack, as stated, between the end posts 7. The binding-bars are then placed on them and caught under the catches, as in Figs. 2 and 4, and then the lever 18 is swung from its up position in Fig. 1 to the position in Fig. 3, 90 which raises lever 15 and hence raises on the platform 11 and by this means compresses the staves 8, when they are tied by bands or cords 13 in their pressed condition, and they then constitute a bundle of staves ready for ship- 95 ping.

Having thus described our invention what we claim as new, and desire to secure by Letters Patent of the United States, is—

In a stave-press, the combination of the vertically-movable platform beneath the stave-bundle, the lifting-lever having a central projection for contact with the under side of the platform, said lever being pivoted at one end,

the other end extending through a verticallyelongated slot in the end of the body, an eccentric lever pivotally attached to the end of the rack, a connecting-rod pivotally attached 5 at each end to the lifting-lever and to the eccentric lever, and the lower end of the connecting-rod being provided with a series of adjusting-holes, substantially as set forth.

In testimony of the foregoing we have hereunto set our hands in the presence of two wit- ro nesses.

NATHAN E. STAPLES. CHARLEY A. RIDLON.

Witnesses:
C. E. Russell,
CHAS. J. RUDINE.