

No. 764,634.

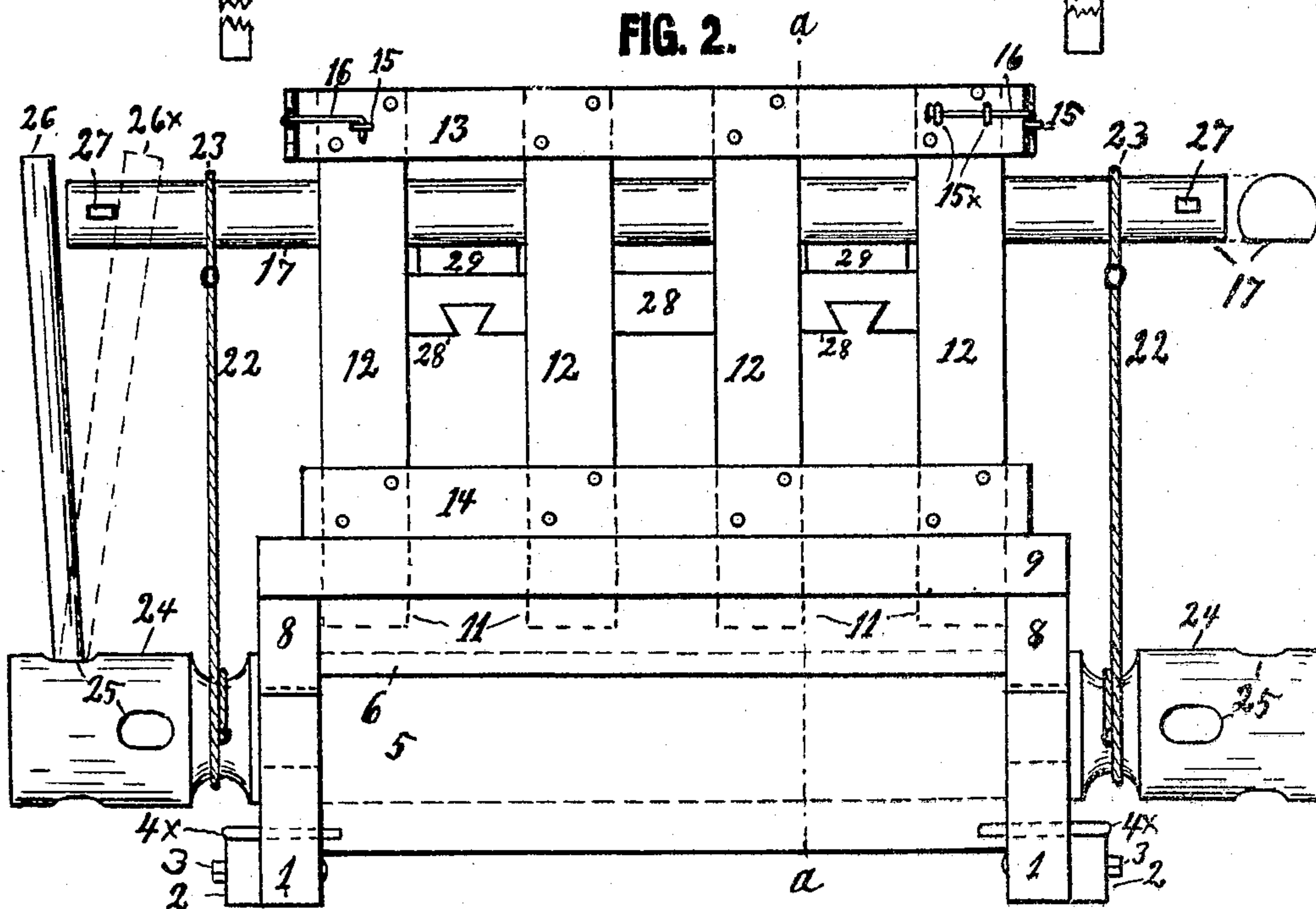
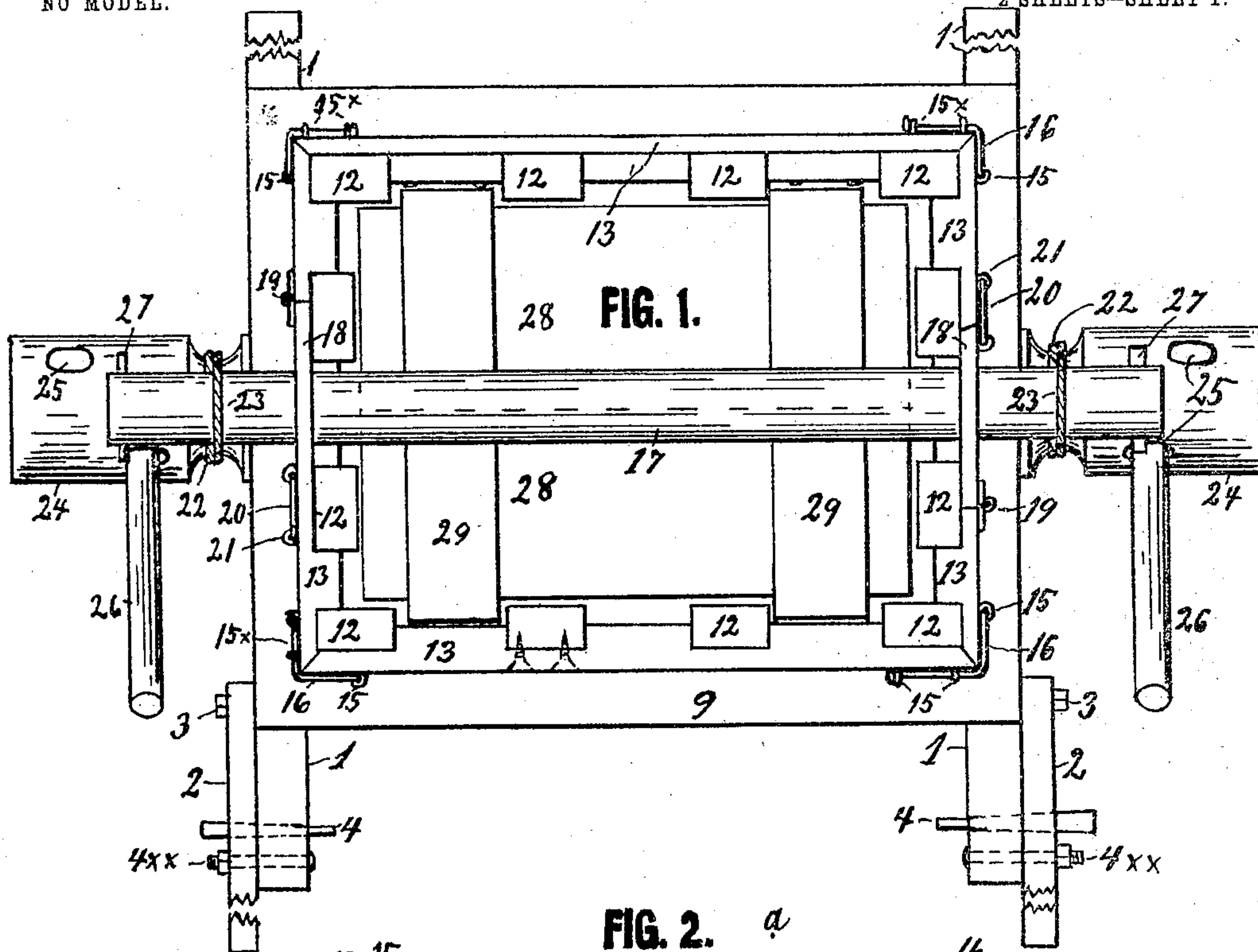
PATENTED JULY 12, 1904.

C. J. RYAN.
BALING PRESS.

APPLICATION FILED MAY 7, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

D. E. Carlson
E. C. Carlson

INVENTOR.

Christopher J. Ryan
BY his ATTORNEY:
A. M. Carlson

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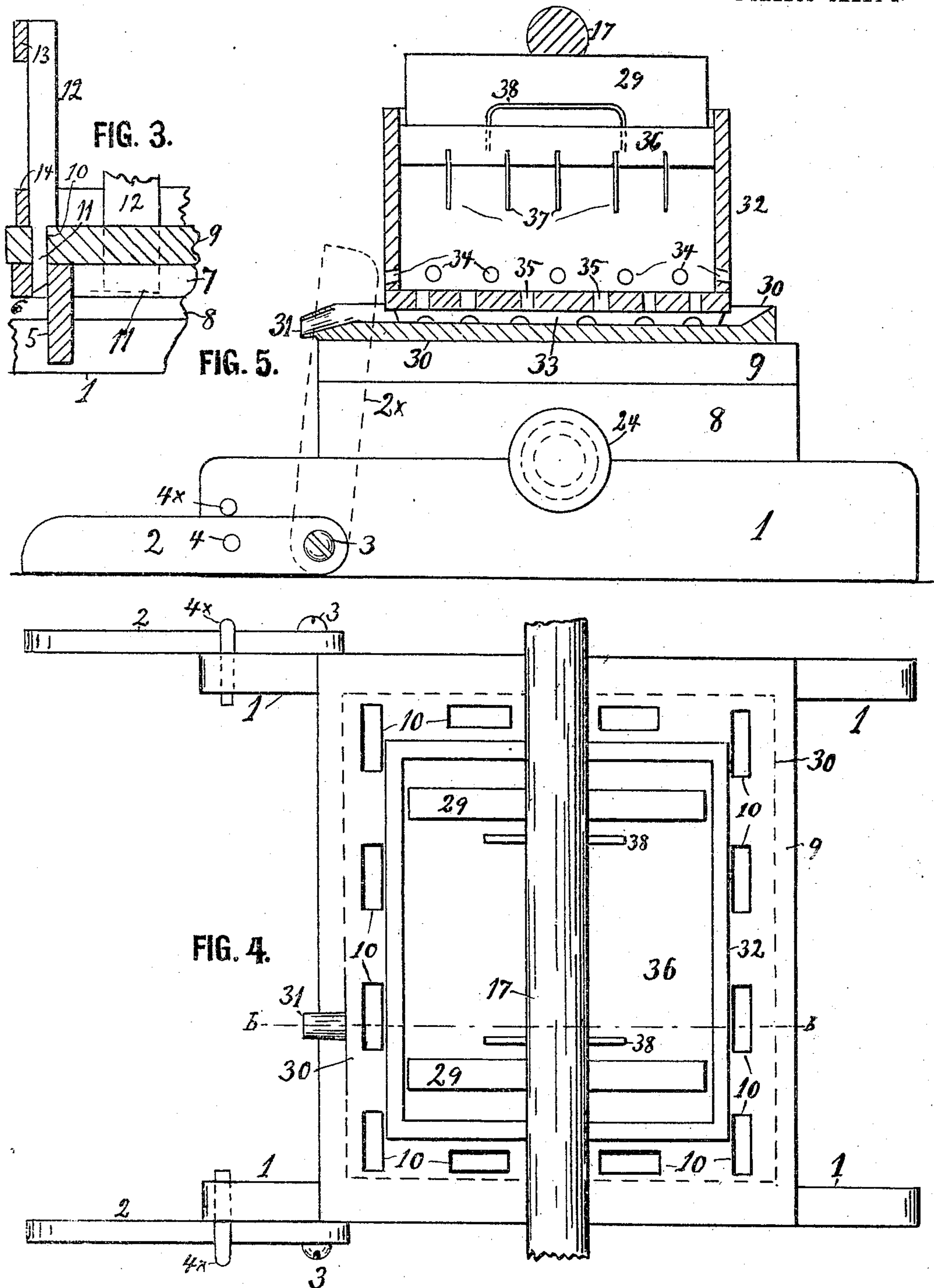
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UNITED STATES PATENT OFFICE.

CHRISTOPHER J. RYAN, OF ST. PAUL, MINNESOTA.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 764,634, dated July 12, 1904.

Application filed May 7, 1903. Serial No. 156,003. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER J. RYAN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Baling-Presses; and I do 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in hand-power presses for pressing hay and like substances into bales and for various other purposes, as will hereinafter be more fully described; and the main object of the invention is to provide a cheap but strong press of said class. This object I attain by the novel construction and arrangement of parts illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of my improved press as it appears when in use for baling hay or similar substances. Fig. 2 is a front side elevation of Fig. 1. Fig. 3 is a vertical sectional view through one side of the press on the line *a a* in Fig. 2 looking from right to left. Fig. 4 is a top view of the body of the press with the hay-baling chamber removed and in its place is shown in dotted outline a tray upon the platform of the press and in the tray a box in which juice may be pressed out of berries, sugar-beets, apples, lemons, and many other kinds of fruit. Fig. 5 is an end view of Fig. 4 with the tray in full lines, but intersected, like all parts above it, on the line *b b* in Fig. 4.

Referring to the drawings by reference-numerals, the frame and base of the press consist of the two parallel base-timbers 1, having each an extension-piece 2, pivoted at 3, and may be folded upward, as in the dotted lines 2^x in Fig. 5, during transportation of the press; but when the press is in use said extensions are held in line with the main timbers 1 by a pin 4, inserted through the timber and the extension, as at 4, or in the timber above the extension, as at 4^x, or in-

stead of such pin a bolt may be used, as at 4^{xx} in Fig. 1. Said base-timbers are secured together by the longitudinal frame-timbers 5 6 and the cross-timbers 7 and 8. (See Figs. 2 and 3.) Upon the frame thus formed is secured a platform 9, provided with apertures 10, (best shown in Fig. 4,) in which are placed the legs or tenons 11 of the posts or uprights 12 of the baling-chamber, which is formed of said posts and of the horizontal strips 13 14 and is separable into two side sections and two end sections, which are secured together near their upper corners or ends by a staple 15 and on angular hooks 16, extending over the corner from a pair of other staples 15^x, in which it rolls, like a rock-shaft, so as to always readily bring the hook proper into the staple 15. The tenons 11 extend below the platform 9, where they find further side support between the side timbers 5 and 6 of the frame and likewise between the end timbers 7 and 8.

In each end section of the baling chamber or rack is a notch or gap for the presser-bar 17 to pass up and down through. In order to strengthen the section at the gap and to prevent hay from falling too much out into the gap, I close the gap with a gate-piece 18, hinged at 19 and having its free end secured by a hook 20, taking in the staple 21. The presser-bar 17 is forced downward by the wire ropes 22, having each a loop 23, placed upon the bar, and by a windlass 24, journaled in the frame below the platform and having the lower ends of the ropes wound upon it. Said windlass is provided with elongated apertures 25, in which are placed loosely the levers 26, by which it is turned.

27 are pegs transversely through the presser-bar to prevent accidental disengagement of the loops 23 from the bar and also to prevent the levers 26 from slipping beyond the end of the bar when they are to be held in a locked position against the bar 17, as in dotted lines 26^x in Fig. 2, while a bale is being tied.

The slotted shape of the holes 25 in the windlass is to permit the bringing of the levers into said locked position. Thus said slots 25

and pegs 27 become cheap substitutes for ratchet wheels and pawls usually employed in windlasses.

5 In operating the press for baling hay or the like the baling-wires are placed upon the platform 9, the hay is thrown into the rack or chamber and stamped down, the follower-boards 28, which are of common construction, are placed on the top of the hay, the bars 29
10 are placed across them and the presser-bar 17 on the top of the bars 29, and then the windlass is applied to press the bale sufficiently hard and the lever 26 or one of them brought against the bar 17 to hold the windlass while
15 the bale is being tied. Thereafter the windlass is released, the bar 17 and one end section and one side section of the chamber removed while the bale is being pushed off from the platform. The sections are then replaced
20 and a new bale formed in the manner already described.

In applying the press to fruits and berries, &c., the baling-chamber 12 13 is removed and a tray 30, having a spout 31, is placed upon
25 the platform of the press. In the tray is set a box 32, having under its bottom notched cleats 33 and in its sides and bottom perforations 34 35, so that the juice may pass freely out of the box, gather in the tray, and run
30 out at its spout 31. A presser-board or internal cover 36 is placed upon the grapes or berries, the blocks or bars 29 are placed edge-wise upon the presser-board, and the presser-bar 17 is applied on the top thereof and forced
35 down by the windlass.

37 represents vertical plates secured in the bottom side of the presser-board to help prevent spreading of the contents when the pressure is applied.

40 38 represents handholds in the top of the presser-board for lifting and handling the board. The extensions 2 are to give extra support to the press at the side toward which the levers 26 are pulled.

The forms of the receptacles which may be 45 used upon the platform to contain the article to be pressed may of course be much varied without diverging from the spirit of the invention.

Having thus described my invention, what 50 I claim, and desire to secure by Letters Patent, is—

1. In a press of the class described, the combination with a suitable frame and platform 55 secured thereon, of a baling-chamber mounted on the platform and having a central gap in each of its end sections, presser-boards or follower-boards in the chamber, a presser-bar in the gaps imparting pressure on the follower-boards toward the platform, and suitable 60 means for pulling the bar toward the platform; said gaps in the baling-chamber having gate-pieces hinged at one side of the gap and being securable to the other side of the gap, substantially as and for the purpose 65 set forth.

2. In a press of the class described, the combination with a suitable frame and platform 70 secured thereon, of a baling-chamber mounted on the platform and having a central gap in each of its end sections. presser-boards or follower-boards in the chamber, a presser-bar in the gaps imparting pressure on the follower-boards toward the platform, and suitable 75 means for pulling the bar toward the platform; said gaps in the baling-chamber having gate-pieces hinged at one side of the gap and being securable to the other side of the gap, and cross-bars interposed between the follower board or boards and the presser- 80 bar.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTOPHER J. RYAN.

Witnesses:

A. M. CARLSEN,
D. E. CARLSEN.