

No. 725,958.

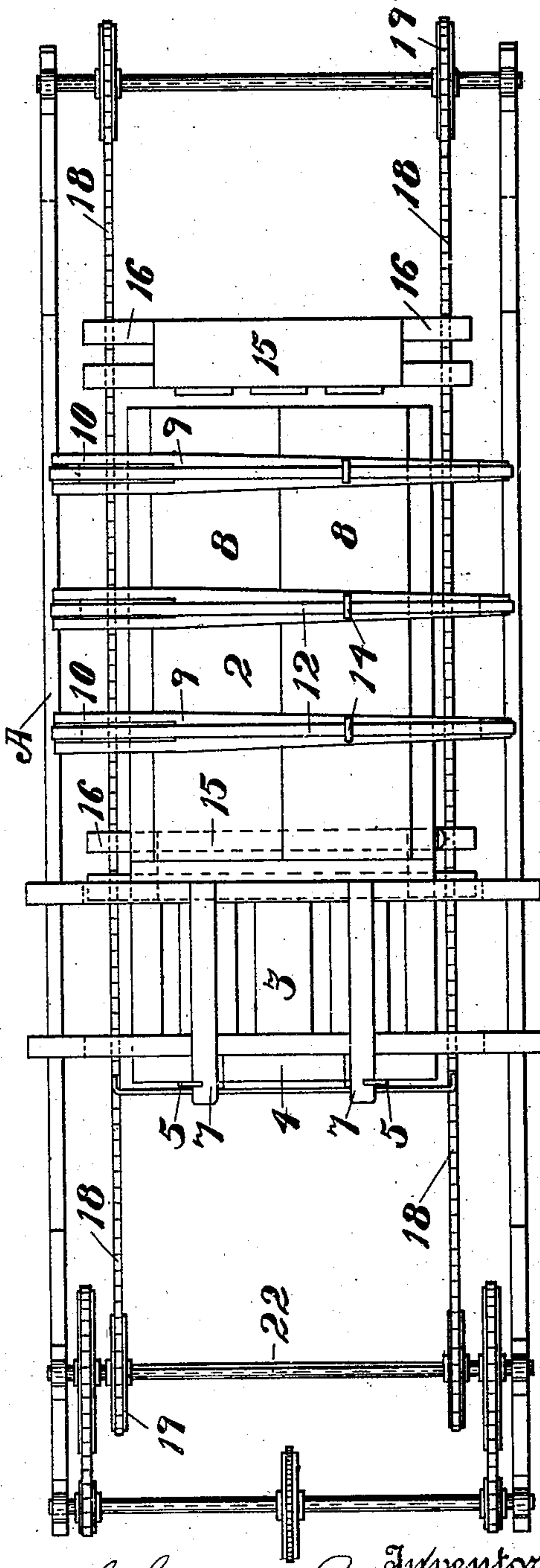
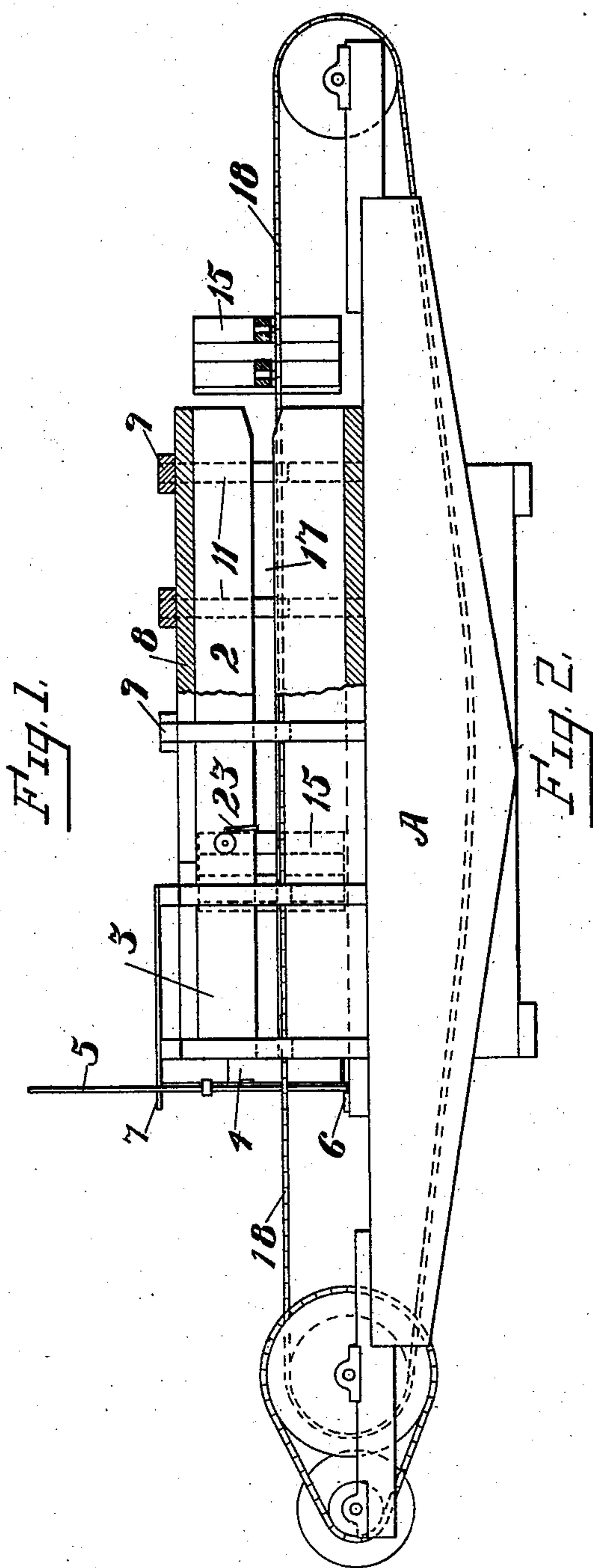
PATENTED APR. 21, 1903.

C. E. HARDIE.
BALING PRESS.

APPLICATION FILED NOV. 28, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses,
J. H. Sorce
Dudley Moss.

Inventor,
Charles E. Hardie
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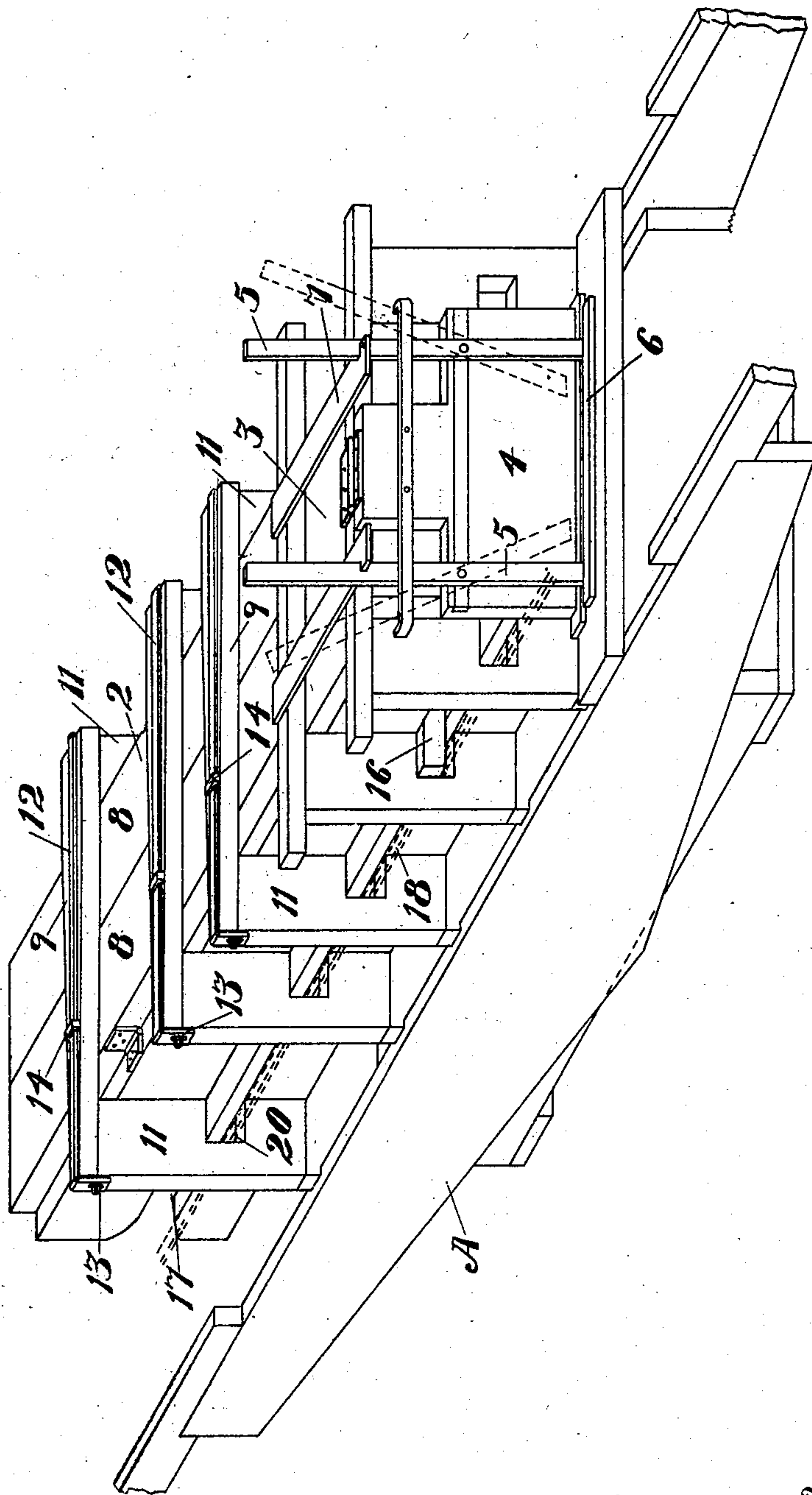
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2 SHEETS—SHEET 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES E. HARDIE, OF CHICO, CALIFORNIA.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 725,958, dated April 21, 1903.

Application filed November 28, 1902. Serial No. 132,997. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. HARDIE, a citizen of the United States, residing at Chico, county of Butte, State of California, have invented an Improvement in Baling-Presses; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in baling-presses of the continuous type employing a plurality of followers operating successively by an endless carrier.

It consists of the parts and the construction and combination of parts, as hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation, in partial section, of my invention. Fig. 2 is a top plan view of same. Fig. 3 is a perspective view of same.

A represents a suitable framework upon which the horizontal press-box 2 is mounted.

3 is the baling-chamber, located at one end of the box, adapted to be closed by the door 4. The opposite end of the box is open. Door 4 is hinged at the top and is locked when closed by means of the pivoted bars 5, carried by the door and having their lower ends beveled and adapted to engage a keeper 6 on the frame A and their upper ends to engage the notched keepers 7 on the press-box.

Material is fed into the top of the box through an opening rearward of chamber 3 and extending the greater portion of the length of the box. This opening is closable by the oppositely-opening doors 8, hinged to the sides of the box.

The feed-opening is large enough to admit a charge direct from the derrick-fork sufficient to form a bale.

The doors 8 are held closed by the following means: One of the doors carries a series of cross-bars 9, which have their rear ends slotted to form guides 10, engaging the vertical standards or braces 11 on one side of the press-box. The other ends of the cross-bars are adapted to extend over the opposite door and to rest on top of the braces 11 on the other side of the box. A strap 12 is hinged to the first-mentioned braces and is locked to those on the opposite side by suitable means, as a hasp and hook 13. The straps are slid-

able in stirrups or guides 14 on the back of the cross-pieces. When the doors are closed and the straps 12 are locked across each cross-piece from standard to standard, all strain on the door-hinges is removed and the doors are able to withstand the pressure exerted by the followers 15. The latter, of which there may be one or more, according to the size of the press, are provided with bifurcated end extensions 16, which project through and are guided in slots 17 in the sides of the press-box. The extensions 16 are secured to the chains 18, which pass over sprockets 19, disposed at each end of the press. The braces 11 are notched, as at 20, to form suitable passage-ways and guides for the chains and the protruding ends 16. The latter have suitable perforations to receive the sprocket-teeth and accommodate the followers where they pass around either of the sprockets.

In operation a charge is dropped by the derrick-fork into the press-box and the doors 8 and 4 closed and locked. Power from any suitable source, as a horse-power, engine, or motor, is transmitted through suitable connections to sprocket-shaft 22 to drive the chains in unison and operate the followers. The latter enter successively the rear end of the press and traverse the inclosed space and compress the charge within chamber 3. The completed compression of the bale may be indicated by a suitable signal device, as a bell operated by a lever 23 extending into the path of the followers. The follower is then stopped while the bale is being tied. Meanwhile doors 8 are opened and a fresh charge of material delivered into the box in readiness for a succeeding follower. As soon as the bale is tied door 4 is unlocked, the follower-carrier started, the bale ejected, and the follower returned to the rear end of the press beneath the box.

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

1. The combination with a press-box, of a follower normally located exterior thereto and means for moving the follower into and through the press-box thereby compressing and ejecting the bale.

2. The combination with a press-box having an open end, of a follower normally in

line with said end and exterior thereto, and means for causing the follower to enter said end and traverse the press-box from end to end and to emerge from the discharge end.

5 3. The combination with a press-box having a normally open end, of a follower exterior to the box in line with said end, a carrier connected with the follower and propelling the latter from end to end of the box
10 and returning it beneath said box to normal position, and means for operating the carrier.

4. The combination with a press-box, of a follower normally exterior to one end of the box, an endless carrier connected with the
15 follower and moving the same through the box from end to end and returning said follower to normal position along the outside of the box, and means for operating the carrier.

5. The combination in a baling-press, of a
20 press-box and followers supported upon endless carriers, traversing the press-box and returning exterior to said box, and means for operating the carriers.

6. The combination in a baling-press of a
25 horizontally-disposed press-box having a feed-opening, a compression-chamber, a closure therefor and followers normally exterior to the box and operable through said press-box from end to end successively and always in
30 the same direction, and means for operating the followers.

7. The combination in a baling-press, of a press-box, followers movable therethrough, the ends of said followers protruding through
35 the sides of the box, endless carriers to which said protruding ends are secured and by which the followers are carried through and returned beneath the box, and means for operating the carriers.

40 8. The combination in a baling-press of a horizontally-disposed press-box open at one

end and having a baling-chamber at the other, a closure for said chamber, said box having a feed-opening at the top, a closure therefor, a follower normally exterior to and in line
45 with said open end and movable through said box from end to end, and means including an endless carrier for operating said follower.

9. The combination in a baling-press, of a horizontally-disposed press-box having a bal-
50 ing-chamber, a feed-opening and a discharge-opening, closures for said openings, the closure for said discharge-opening comprising a door hinged at the top and carrying vertically-
55 disposed pivoted levers, and rigid keepers upon the press-box frame engaging the ends of said levers to lock the door, followers operating through said box, endless connections for the same and means for imparting movement
60 to said connections.

10. The combination in a baling-press, of a horizontal press-box having a compression-
chamber at one end and a feed-chamber at the other, a follower operable therein, means
65 for operating the follower, a closure for said compression-chamber, said feed-chamber having a feed-opening at the top, a closure for said opening, said closure comprising two oppositely-disposed doors, cross-bars secured to
70 one of said doors, said cross-bars having one end slotted to engage fixed vertical guides on the press-frame and the other end extending across the top of the other door, and means including the hinged straps
75 12 to lock said doors.

In witness whereof I have hereunto set my hand.

CHARLES E. HARDIE.

Witnesses:

H. SILBERSTEIN,
A. F. FISHER.