No. 636,397. Patented Nov. 7, 1899.

# R. V. L., M. L. & J. J. DAY.

## BALING PRESS.

(Application filed June 8, 1899.)

(No Model.) 2 Sheets—Sheet 1.

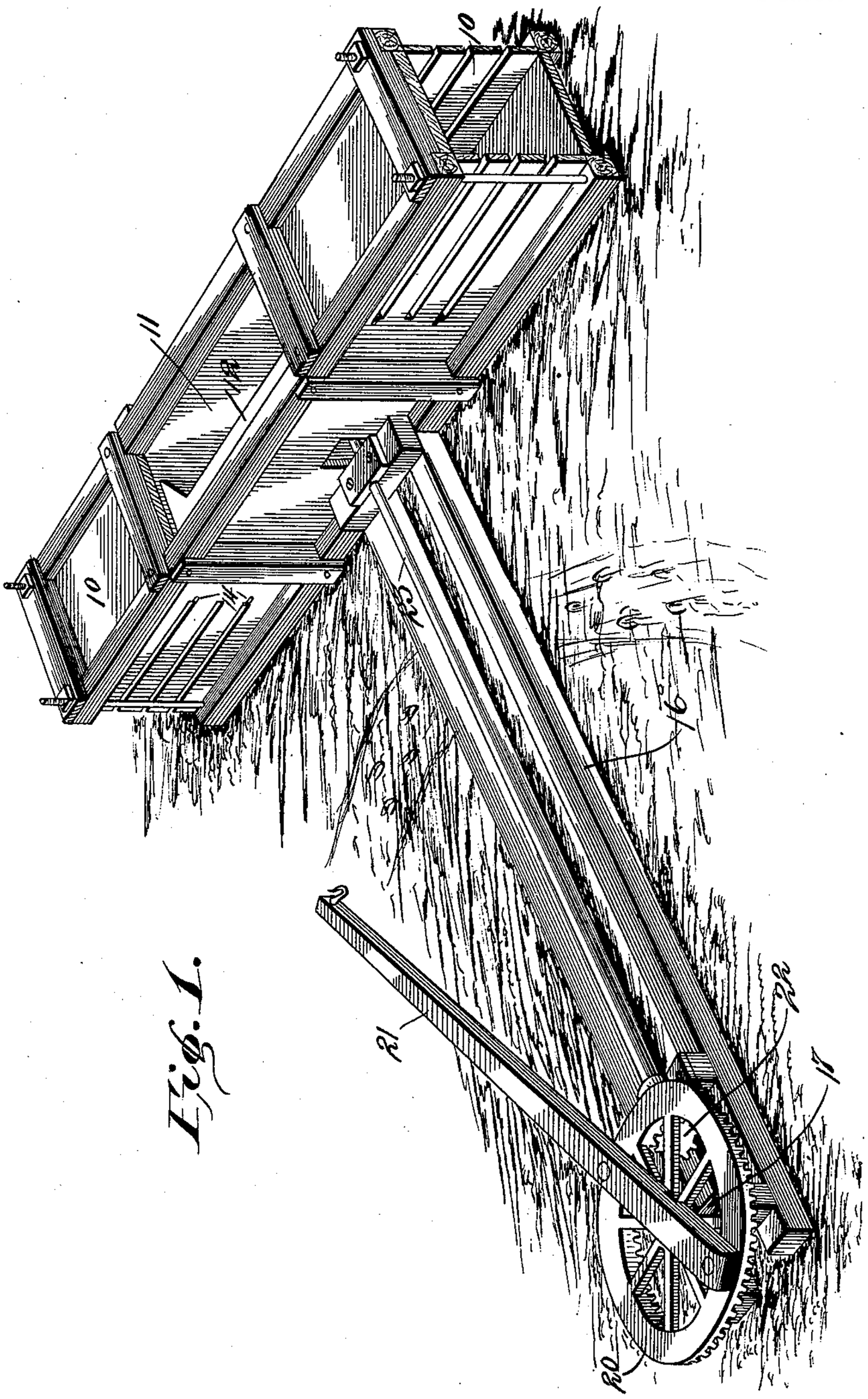


Fig. 1.

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Fig. 2.

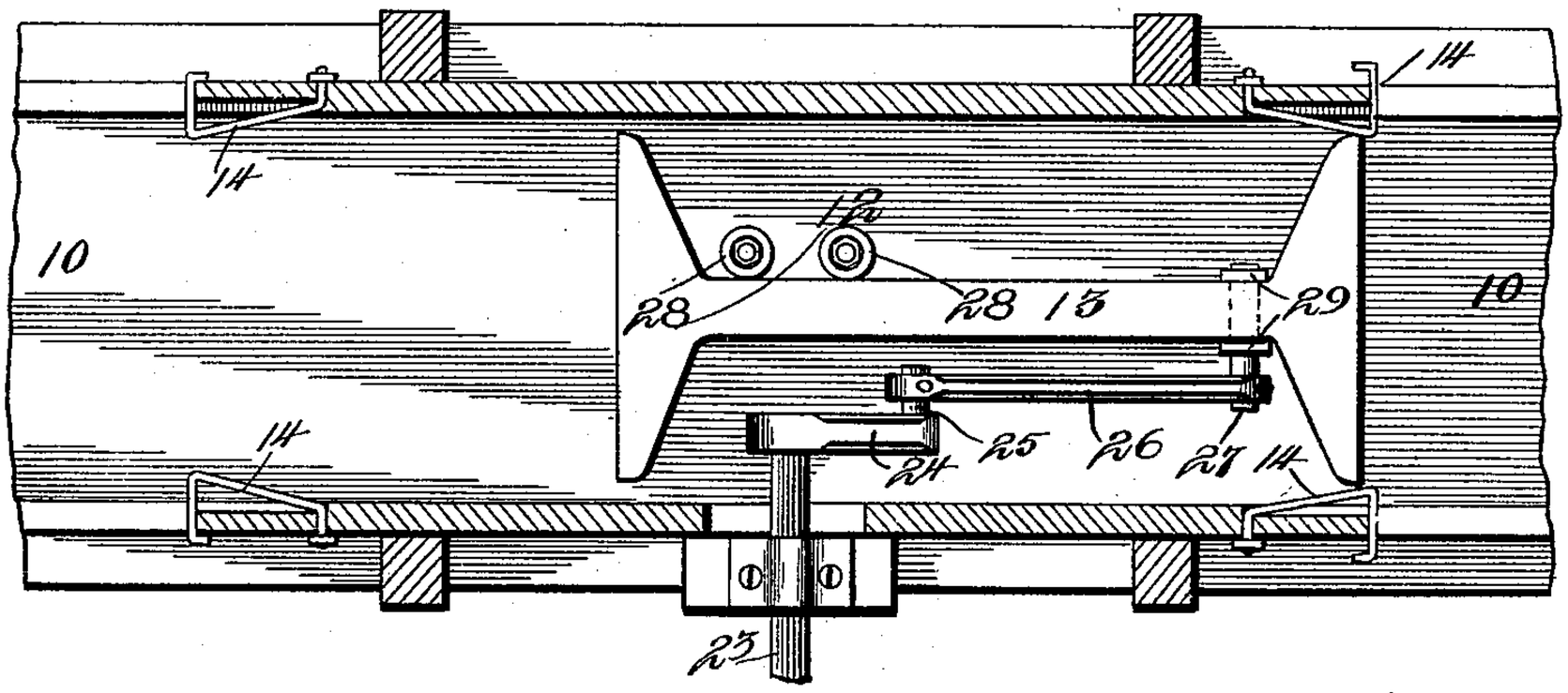
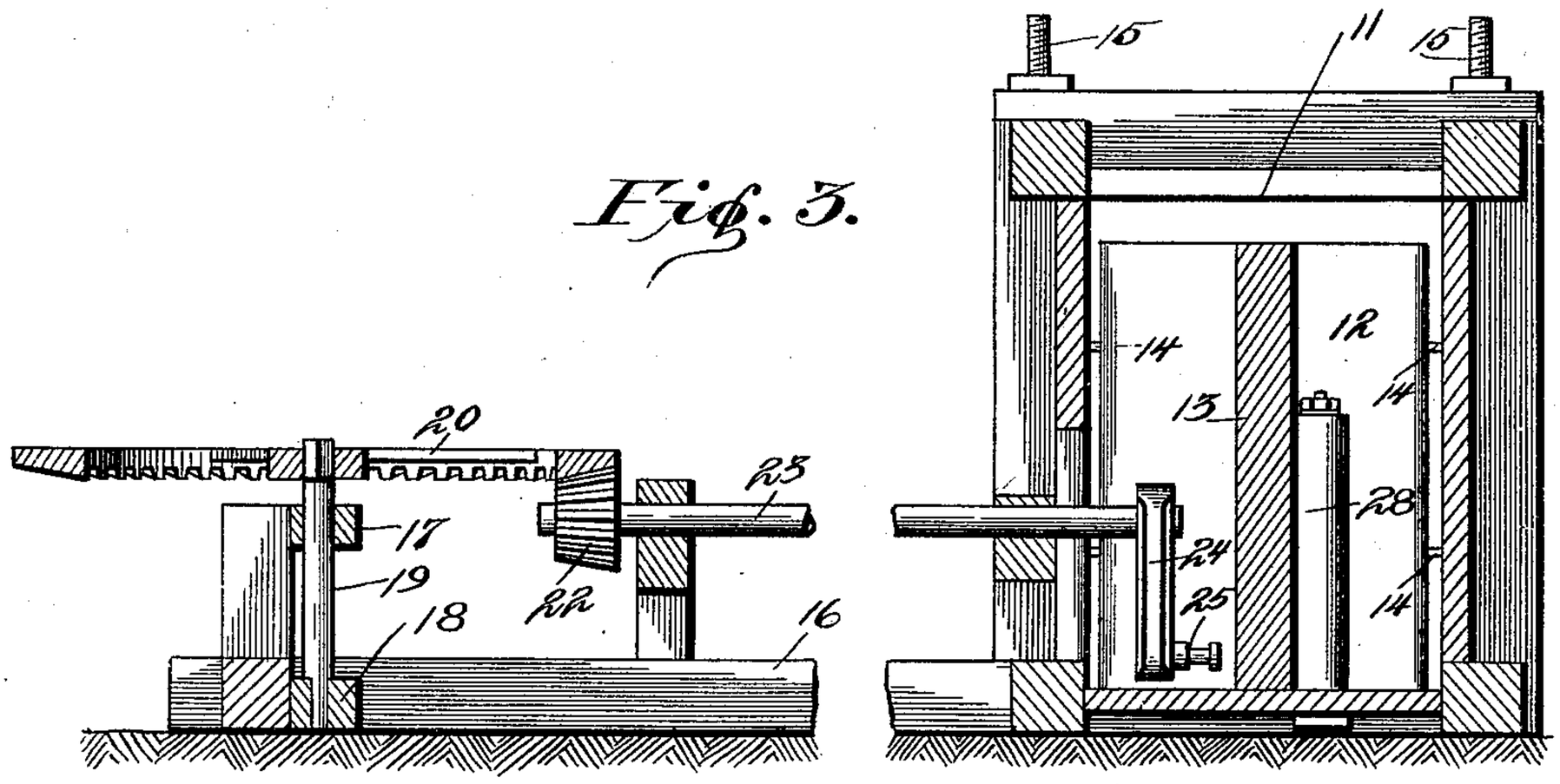



Fig. 3.

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# UNITED STATES PATENT OFFICE.

ROBERT V. L. DAY, MARTIN L. DAY, AND JAMES J. DAY, OF NASHVILLE, GEORGIA.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 636,397, dated November 7, 1899.

Application filed June 8, 1899. Serial No. 719,831. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT V. L. DAY, MARTIN L. DAY, and JAMES J. DAY, citizens of the United States, residing at Nashville, in the county of Berrien and State of Georgia, have invented a new and useful Baling-Press, of which the following is a specification.

Our invention relates to baling-presses, and particularly to a double-acting or double-chambered hay-press; and the object in view is to provide a simple, compact, and efficient construction and arrangement of plunger-operating mechanism whereby horse or other power may be utilized and whereby the operation may be rendered practically continuous.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim, it being understood that the improvement is susceptible of various changes in the form, proportion, size, and minor details of construction without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a baling-press constructed in accordance with our invention. Fig. 2 is a plan view of the operating mechanism. Fig. 3 is a transverse vertical section of the same.

Similar reference characters indicate corresponding parts in all the figures of the drawings.

In the drawings we have shown a preferred embodiment of our invention, wherein the baling-chambers 10 are arranged upon opposite sides of the feed-opening 11 and are adapted to receive hay or other material alternately as it is advanced in opposite directions by the reciprocatory movement of the plunger 12, said plunger being of the double-headed type, with an intermediate reduced web or body portion 13. Detents 14 are arranged in operative relation with the walls of the baling-chambers, as in the ordinary practice, and tension-rods 15 connect the upper and lower walls of the same for contracting or choking the chambers to retard to a greater or less extent the advance movement of the follower heads or boards.

Extending laterally from the main frame of the baling-chambers is a sill 16, at the outer end of which are arranged upper and lower bearings 17 and 18 for the vertical drive-shaft 19, to which is connected a drive-gear 20, carrying the sweep 21 or other means for communicating motion to the drive-shaft. Said drive-gear meshes with a pinion 22 on a horizontal driven spindle 23, which extends parallel with the sill and is provided within the press-box with a crank-arm 24. The wrist-pin 25 of this crank-arm is connected by a pitman 26 with a pivot-bolt 27 on the plunger, whereby as the driven spindle rotates to cause corresponding motion of its crank-arm the plunger is alternately moved in opposite directions to press hay from the feed-opening into the baling-chambers, where it is detained by the detents provided for that purpose. To prevent the pressure of the operating mechanism from forcing the plunger into contact with the outer side wall of the press-box, we preferably arrange antifriction bearing-rollers 28 in contact with the outer side of the body portion of the plunger, and in practice the bolt 27 is held in place by nuts 29, threaded thereon and arranged in contact with opposite side surfaces of the body portion of the plunger.

From the above description it will be seen that the device embodying our invention is simple in construction, the application of power being direct, and hence the loss by friction is reduced to the minimum. The arrangement of the drive-gear is at such an interval from the press-box as to allow the draft-animals to move continuously around the center thereof. Furthermore, it will be seen that the hay is packed in layers to form the bales, whereby the separation of a bale into sections or "feeds" is facilitated.

Having described our invention, what we claim is—

In a baling-press, the combination with a press-box having oppositely-located baling-presses and an intermediate feed-opening, of a reciprocatory plunger arranged in the press-box, said plunger consisting of two oppositely-disposed heads having a narrow connecting-web, a pivot-bolt carried by the narrowed

portion of the plunger adjacent one of the heads, a pitman connected with the pivot-pin and extending in the direction of the opposite head, a spindle projecting into the press-box and having a crank-arm connected with the pitman, the pivot-pin, the pitman, the inner end of the spindle, and the crank-arm lying in the space between the heads of the spindle, and bearing-rollers within the press-box and engaging the narrowed portion of the plunger intermediate the heads and on the opposite side from said pitman, said rollers lying at opposite sides of the line of the axis of the spindle.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ROBERT V. L. DAY.
MARTIN L. DAY.
JAMES J. DAY.

Witnesses:
P. H. ASKEW,
J. P. KNIGHT.