No. 799,225. PATENTED SEPT. 12, 1905.

M. L. DEAN.

BALING PRESS.

APPLICATION FILED OCT. 16, 1903.

Fig. 1.

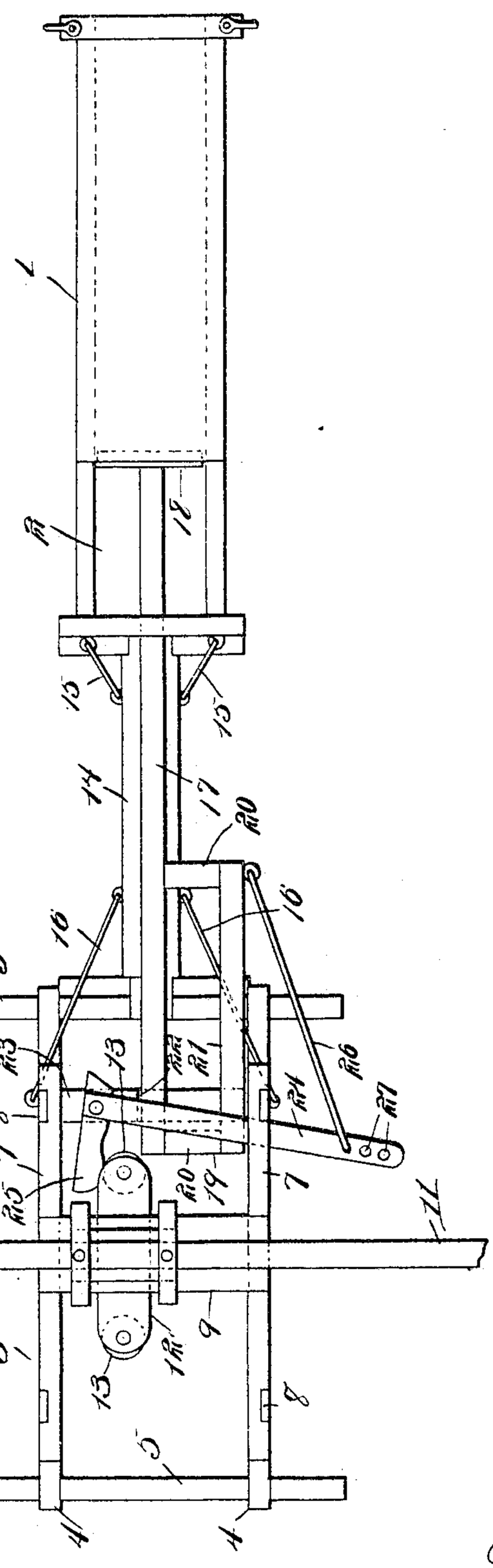
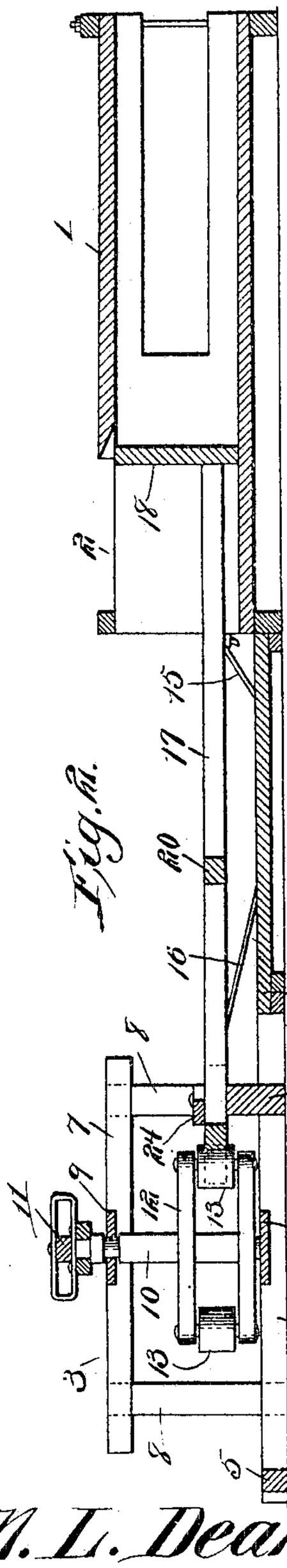


Fig. 2.



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UNITED STATES PATENT OFFICE.

MARK LYAL DEAN, OF CENTERVILLE, TENNESSEE.

BALING-PRESS.

No. 799,225. Specification of Letters Patent. Patented Sept. 12, 1905.

Application filed October 16, 1903. Serial No. 177,326.

To all whom it may concern:

Be it known that I, MARK LYAL DEAN, a citizen of the United States, residing at Centerville, in the county of Hickman and State of Tennessee, have invented a new and useful Baling-Press, of which the following is a specification.

My invention relates to baling-presses, and has for its objects to produce a comparatively simple device of this character in which the plunger will be subjected to the greatest pressure at the completion of its baling stroke, one in which the employment of springs in the operation of the plunger is entirely dispensed with, and one in which the draft-lever will have a steady uniform motion, thus obviating the same being thrown into contact with the draft-animals.

With these and other objects in view the invention comprises the novel details of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a top plan view of a press embodying my invention. Fig. 2 is a longitudinal sectional elevation of the same.

Referring to the drawings, 1 designates the baling box or chamber, of the usual or any preferred construction, having its top provided at its forward end with an opening 2, through which the material is fed to the chamber.

3 indicates a suitable framework for sustaining the power mechanism, but consisting, preferably, of a pair of parallel base-beams 4, connected by transverse end beams 5 and a central bearing plate or member 6, and a pair of upper parallel frame-beams 7, supported above the beams 4 by vertical standards 8 and in turn supporting a transverse bearing-plate 9, alined vertically above the bearing-plate 6.

Journaled for rotation in the bearing-plates 6 9 is a vertical shaft 10, carrying at its upper end a power-lever 11, to which the draft-animals are hitched, as usual, and at its lower end an actuating member comprising a pair of elongated plates spaced vertically one above the other and having pivoted between them upon vertical axes a pair of rotary bearing-rollers 13, disposed one adjacent to each end of the frame, which latter and the lever are both fixed for rotation with the shaft.

Extending between the baling-box 1 and frame 3 is a coupling or connecting plate 14, having its ends reduced to form tongues which engage suitable sockets formed in the said parts, said plate being provided adjacent to one end with a pair of pivoted hooks or analogous attaching members 15, designed for engagement with suitable eyes carried by the baling-box 1, and at its opposite end with similar attaching hooks or devices 16, adapted to engage eyes carried by the rear vertical standards 8 of the frame.

17 is a horizontal longitudinally-reciprocatory plunger beam or shaft carrying at its rear end a plunger 18, designed in practice to work back and forth in and longitudinally of the chamber 1 and provided at its forward end with a lateral horizontally-extending bearing-frame 19, consisting, preferably, of a pair of transverse end bars or members 20 and a longitudinal bar or member 21, arranged parallel with and spaced from the shaft by the end bars. This beam and its bearing-frame work at its forward end in a suitable guide 22, formed in the upper face of a transverse bearing-beam 23, secured within the frame 3.

The beam is reciprocated in one direction for carrying the plunger to baling position owing to the rollers 13 contacting with the forward end of the beam and its bearing-frame 19 during the rotation of drive-shaft 10, said rollers being adapted while thus actuating the plunger-beam to travel upon the outer face of the forward end member 20. For moving the plunger-beam in the opposite direction to complete its reciprocation and carry the plunger to non-baling position I employ an operating-lever 24, pivoted to bearing-beam 23 and provided at its pivotal point with a right-angularly-disposed actuating arm or finger 25, projecting forwardly into the path or circle of rotation of the rollers 13. The outer end of the lever 24 is connected with the plunger-beam by a link 26, pivotally attached to the bearing-frame 19 at its rear end and engaged at its forward end with one of a series of perforations 27, whereby the link may be adjusted for varying the throw of the lever, and consequently the forward stroke of the plunger. By this arrangement it is apparent that as the rollers 13 pass from the forward end of the bearing-frame they will immediately contact with the actuating-arm 25 and operate the same for swinging the lever forwardly on its pivot and imparting a movement in the same direction to the plunger-beam.

From the foregoing it will be seen that I produce a device of simple construction which is admirably adapted for the attainment of

the ends in view; but in attaining these ends it is to be understood that I do not limit myself to the precise details herein set forth, inasmuch as minor changes may be made therein without departing from the spirit or scope of the invention.

Having thus described my invention, what I claim is—

In a baling-press, the combination with a supporting-frame, of a vertical shaft mounted for rotation thereon, an elongated frame carried by the shaft and comprising a pair of vertically-spaced parallel plates, a baling box or chamber, a plunger disposed for reciprocation therein, a plunger-operating beam provided at its forward end with a rectangular frame consisting of a longitudinal bar spaced from the operating-beam by transverse end bars, bearing-rollers journaled between the plates adjacent the ends of the elongated frame and acting on the end of the rectangular frame, a pivoted lever, the long arm of which is provided with a series of openings and the short arm thereof with a curved terminal face adapted to engage the rollers of the elongated frame, and a link pivotally connected to the rear of the rectangular frame and adapted to engage one of the series of openings in the long arm of the pivoted lever for varying the throw of the plunger-operating beam.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MARK LYAL DEAN.

Witnesses:
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