

(No Model.)

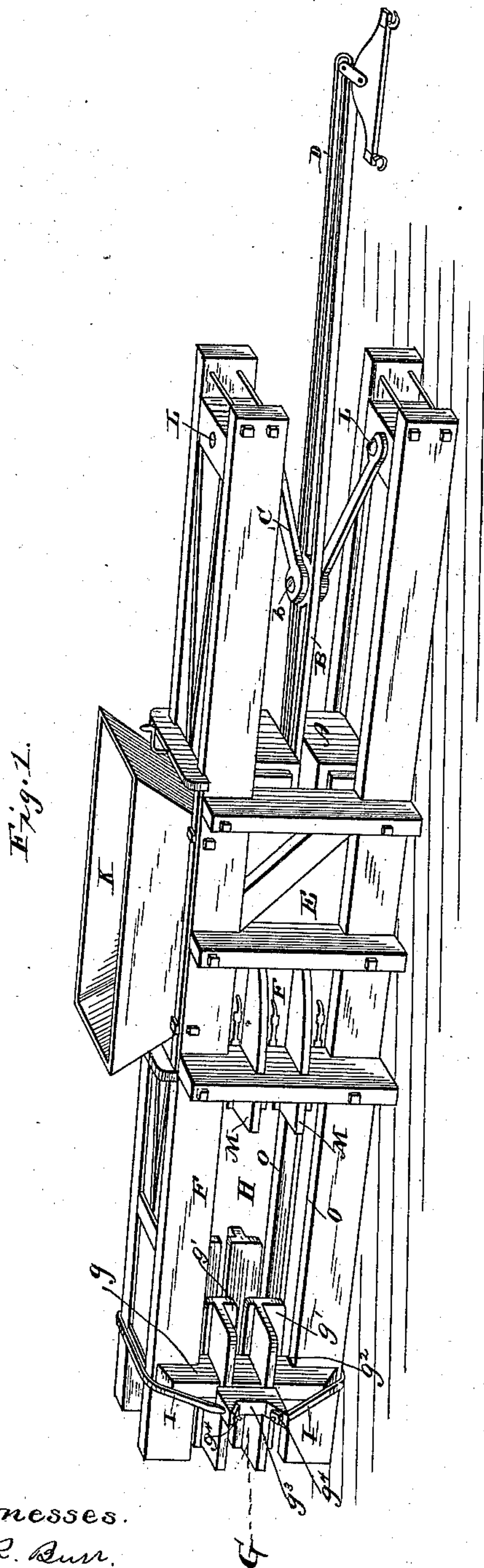
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P. K. DEDERICK.

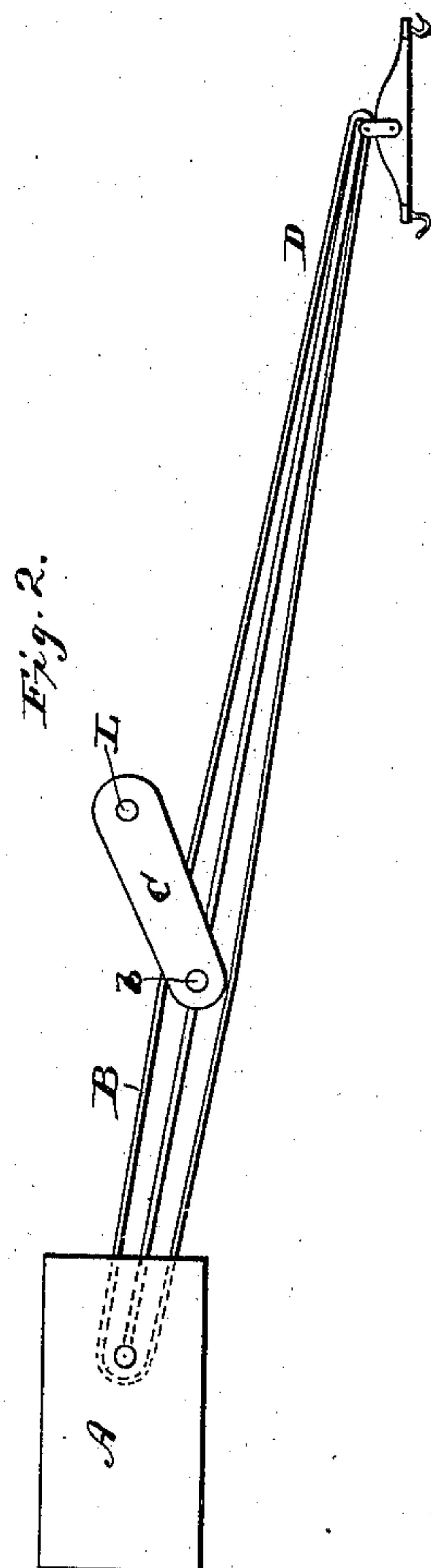
BALING PRESS.

No. 382,144.

Patented May 1, 1888.



Witnesses.  
Chas. R. Burr.  
Thomas Durant.



Inventor.  
 Peter K. Dredrick.  
 By Church & Church  
 his Attorneys.

(No Model.)

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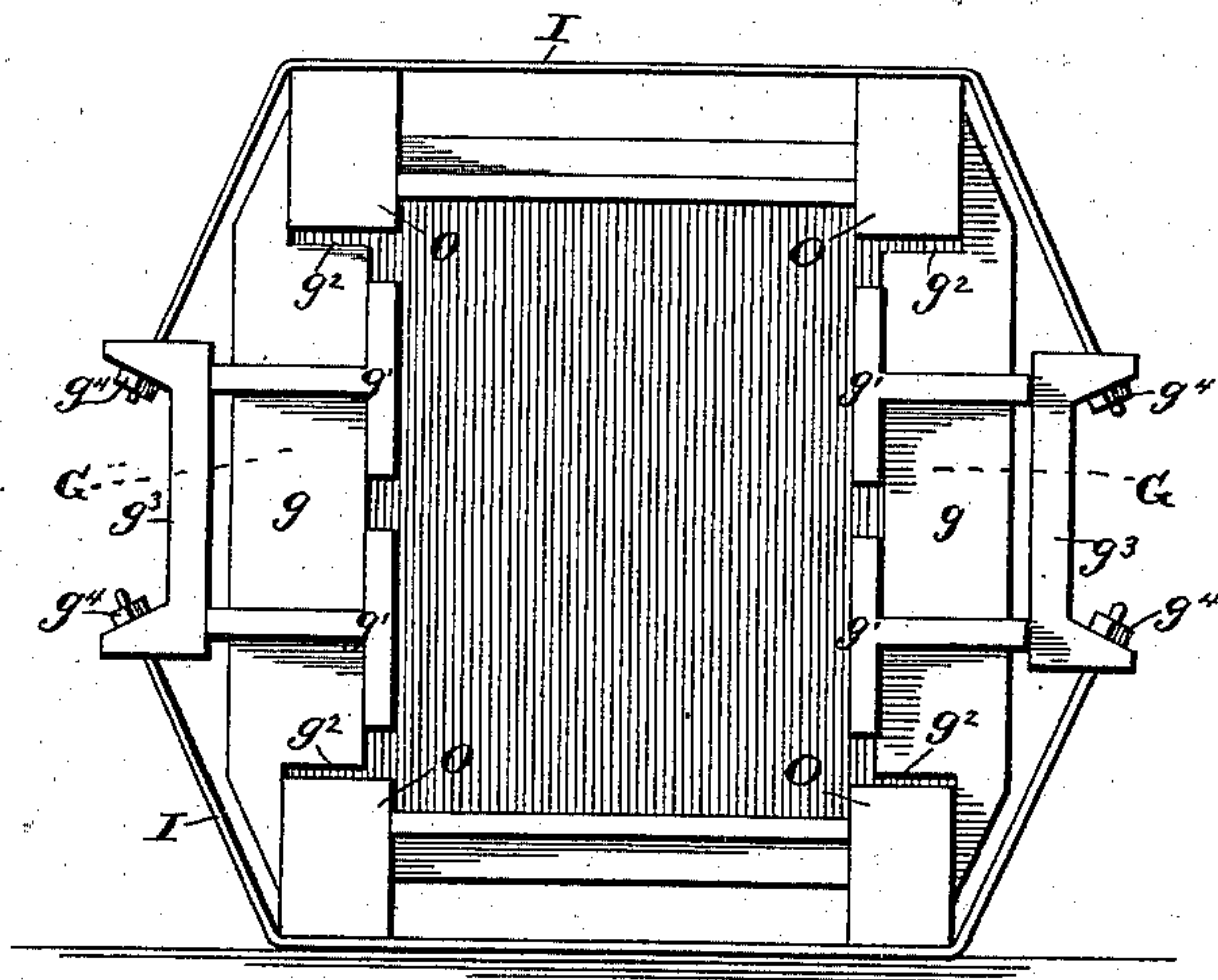
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Fig. 3.



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# UNITED STATES PATENT OFFICE.

PETER K. DEDERICK, OF LOUDONVILLE, NEW YORK.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 382,144, dated May 1, 1888.

Application filed November 10, 1887. Serial No. 251,854. (No model.)

*To all whom it may concern:*

Be it known that I, PETER K. DEDERICK, of Loudonville, in the county of Albany and State of New York, have invented certain new and useful Improvements in Baling-Presses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures and letters of reference marked thereon.

My present invention relates to that class of baling-presses for which Letters Patent of the United States were granted to me October 29, 1872, Nos. 132,566 and 132,639, and for which various other Letters Patent have since been granted me for improvements on the same, particularly No. 152,084, dated June 16, 1874.

The invention consists in certain novel improvements in the construction of the bale-chamber and power devices of the machine, which will be hereinafter fully described, and pointed out in the claims at the end of this specification.

Referring to the accompanying drawings, Figure 1 represents a perspective view of a press embodying my improvements, and Fig. 2 a plan view of the power devices detached from the frame of the machine. Fig. 3 is a view of the discharge end of the press.

Similar letters of reference in the several figures indicate the same parts.

A represents the traverser or plunger of the press; B, a horse-lever pivoted at its inner end to the traverser, and at *b* to a pair of fulcrum-arms, C C, pivoted to the frame of the press at L. These arms C C, together with the lever B, form a double-acting toggle, which is adapted to be vibrated back and forth across the center, alternately from opposite sides of the press, by a horse or horses connected to the outer or long end, D, of the lever B, as shown.

The length of the arms C C may be greater or less than the length of lever B between the point *b* and the point of connection to the traverser, it only being essential that said arms C C, which constitute the fulcrum of the lever, be so arranged as to shift alternately from one side to the other of a central line or dead-point as the lever is vibrated. A single arm, C, may be used effectively; but I prefer to use two. The vibration of the lever is effected by re-

versing the direction of the travel of the horse or horses, as will be readily understood.

E is the press-box, and F the bale-chamber, of the machine; and K is the hopper, in which the loose material to be baled is placed preparatory to its being thrust down into the press-box.

The sides of the bale chamber of the machine are left open part way, as shown at H, to facilitate the binding of the bales, and the projecting timbers M of the portions of the sides nearer the press-box are slotted, in order to permit the ties or bands to be passed through before the tying-partitions reach the said opening, if desired, while the portions of the sides at the discharge end are also slotted to admit of the bands passing out with the bale without stripping off or breaking said bands.

In my present press the openings in the sides of the bale-chamber do not extend entirely from top to bottom of the chamber, as in the press shown in my patent, No. 152,084, hereinbefore referred to, but only to the tops and bottoms of the lower and upper corner timbers, respectively, leaving the projecting portions O of said timbers to serve as flanges to guide the advancing column of pressed material and as friction-surfaces for properly retarding the progress of said column. The sections G of the sides consist, each, of the vertical and the longitudinal pieces *g'* and piece *g*, each piece *g* being shouldered at *g*<sup>2</sup> *g*<sup>2</sup>, so as to admit it between the timbers O, as shown in Figs. 1 and 3. The said sections G are each secured or clamped at but one point, and preferably at the center, or nearly so, so that when adjusted to produce friction said sections will conform to the bale and produce friction with their entire inner surface more uniformly than could be done if said sections were adjusted at two or more places, as in my previous patents referred to. I preferably use bands I to secure or clamp said sections G, the ends of said bands being passed through strong cast bearings *g*<sup>3</sup> and screw-threaded to receive adjusting-nuts *g*<sup>4</sup>, as shown.

When I state above that the sections G are each secured or clamped at but one point, I mean that each section is held at but one single point between its ends, so that it is in effect pivotally supported at such single point, and



is thereby enabled to adapt itself or conform to the column of pressed material passing along within the bale-chamber.

By manipulating the nuts  $g^4$  the required friction is produced upon both sides of the bale at the same time. Any other form of adjustable band will answer this purpose, or bolts applied across the frame both ways, so as to clamp the bale and produce friction thereon, will suffice.

In this press it will be observed that, owing to the extension of the lever B beyond its point of connection with the arms C C, and to the attachment of the horse directly to the outer end D of said lever, there is almost a direct pull endwise of the lever in starting forward the traverser, and that it is not until the arms C C, following the motion of the lever, begin to straighten out that said arms are caused to bear the strain and act as toggle members in forcing forward the traverser.

Having thus described my invention, what I claim as new is—

1. In a baling-press, the combination, with the bale-chamber having openings, as at H, of the sides, each pivotally supported at a point between its extremities, whereby said sides are permitted to conform to and bear with uniform friction upon the column of pressed material, substantially as described.

2. In a baling-press, the combination, with the bale-chamber having openings, as at H, of the sides provided with passages for the bands on the bales, and each pivotally supported at

a point between its extremities, substantially as described, for the purpose specified.

3. The bale-chamber having the openings H and guides O, and provided with the closed sides at the discharge end, substantially as described.

4. The bale-chamber having the openings H and guides O, in combination with the adjustable closed sides at the discharge end, and means for adjusting said sides, substantially as described.

5. The bale-chamber having the openings H, the guides O, and the slotted closed sides at its discharge end, substantially as described.

6. The bale-chamber having the openings H, the guides O, and the adjustable slotted closed sides at its discharge end, substantially as described.

7. In a horizontal baling-press, the combination, with the traverser, of the arms C C, pivoted to the press frame, and the long lever B, pivoted to the traverser and to the said arms, as shown, and adapted for the direct attachment of the horse at its outer end, whereby the first part of the advancing movement of the traverser is effected by the inward thrust of the lever, due to a direct longitudinal pull on said lever, and without a strain on the arms C C, substantially as described.

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Witnesses:

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