

(No Model.)

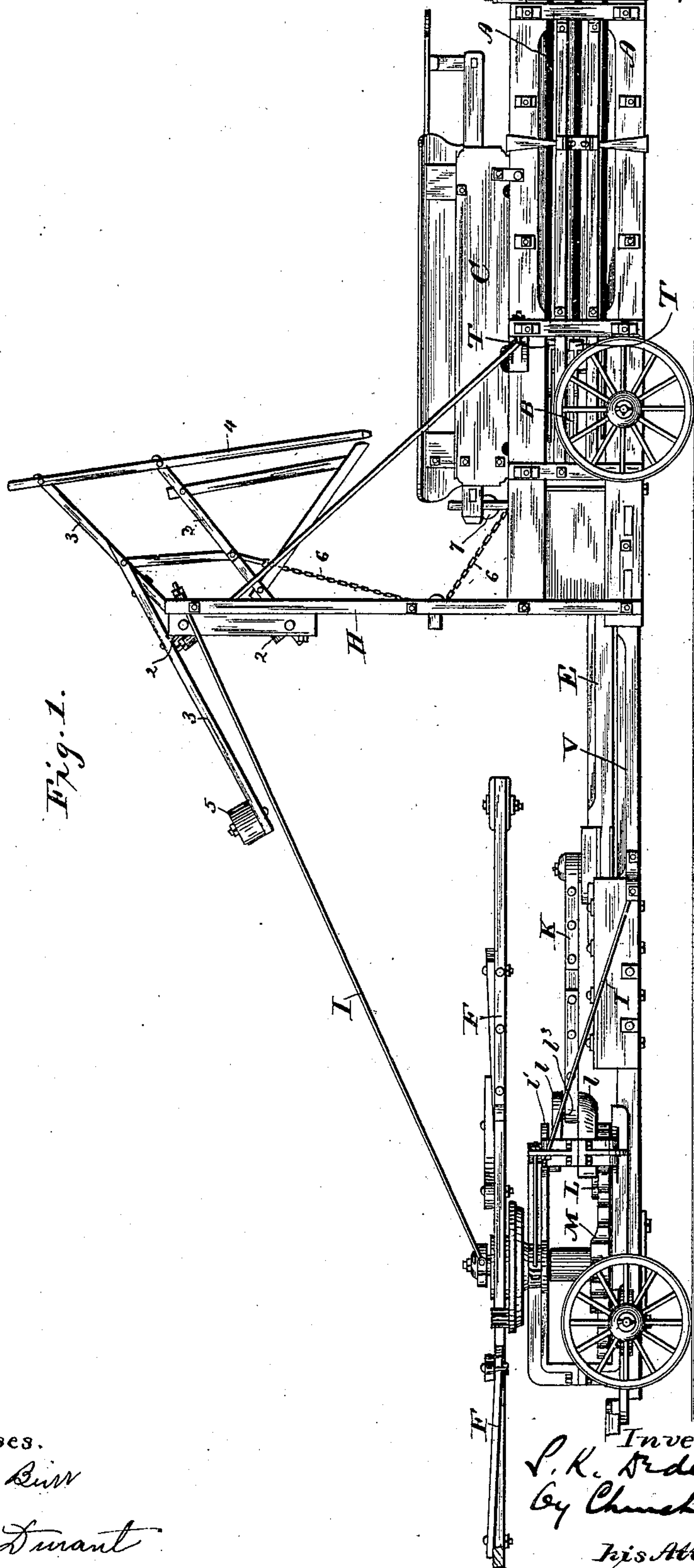
3 Sheets—Sheet 1

P. K. DEDERICK.

BALING PRESS.

No. 334,002.

Patented Jan 12, 1886.



Witnesses.
Charles R. Bunn
Thomas Durant

Inventor.
P. K. Dederick
By Church & Church
His Attorneys

(No Model.)

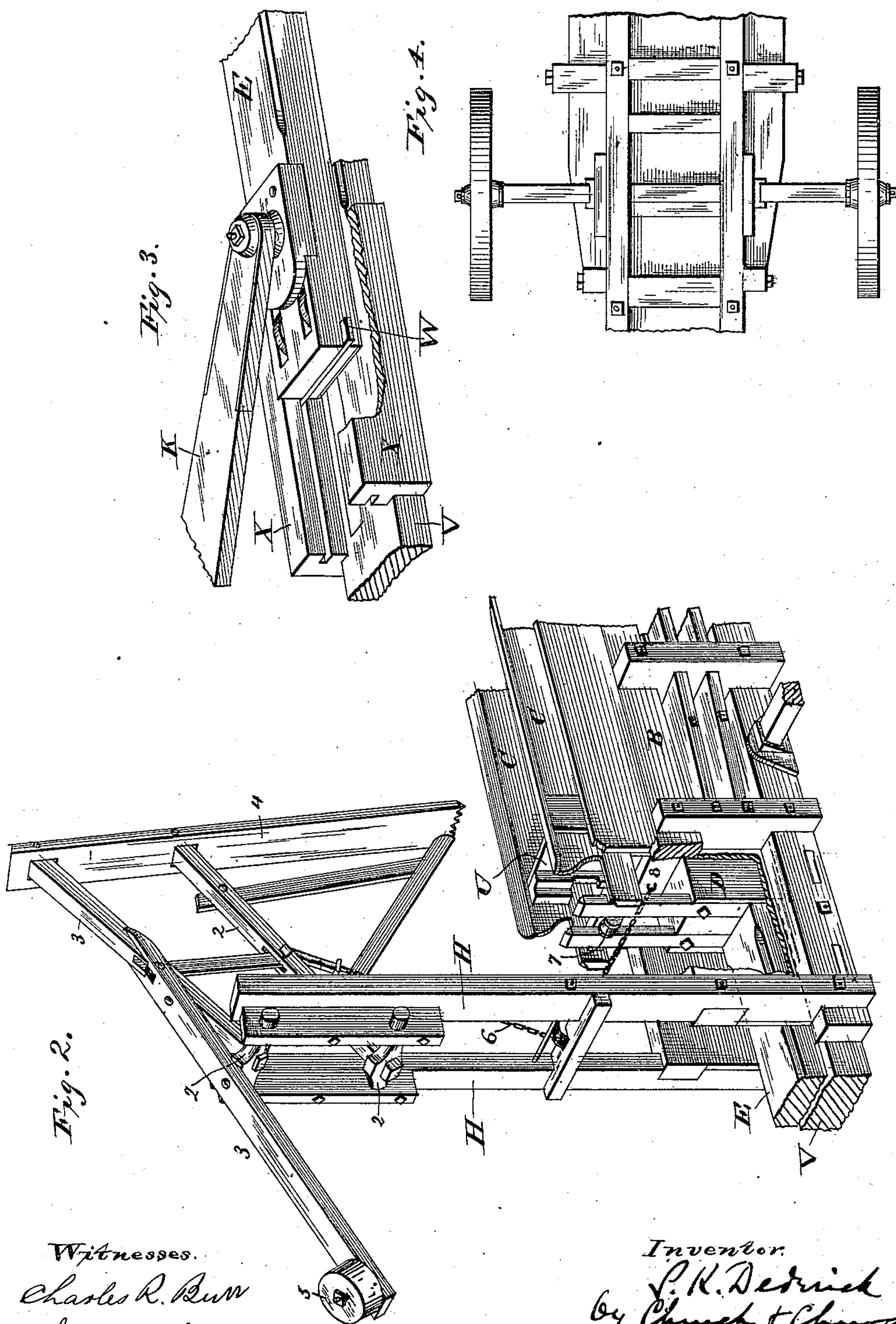
3 Sheets—Sheet 2.

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No. 334,002.

Patented Jan, 12, 1886.



Witnesses.
Charles R. Burn
Thomas Durant

Inventor.
P. K. Dedrick
by Church & Church
his Attorneys.

(No Model.)

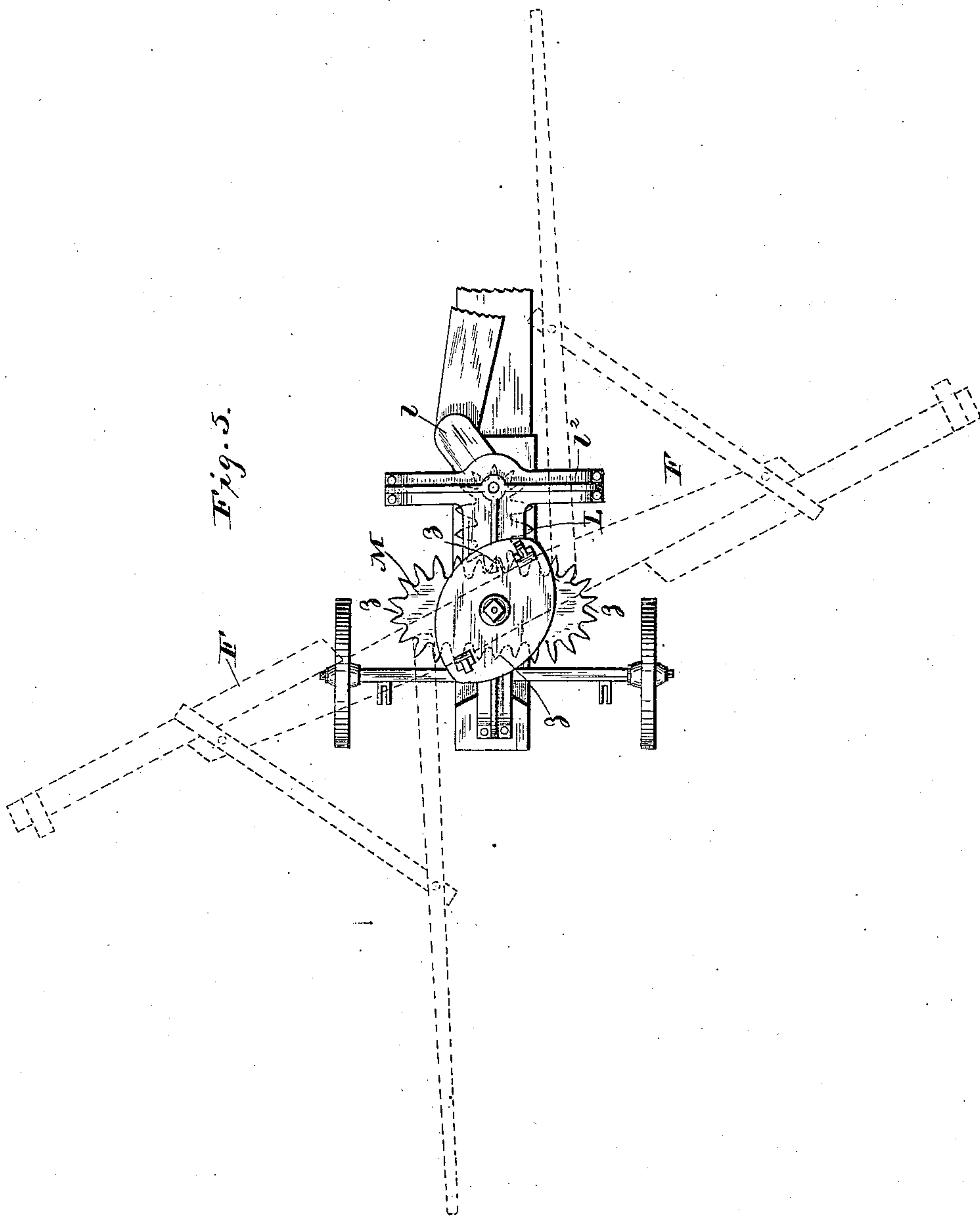
3 Sheets—Sheet 3.

P. K. DEDERICK.

BALING PRESS.

No. 334,002.

Patented Jan. 12, 1886.



Witnesses.
Charles R. Burr
Thomas Durant

Inventor
P. K. Dederick
by Church & Chubb
His Attorneys.

UNITED STATES PATENT OFFICE.

PETER K. DEDERICK, OF LOUDONVILLE, NEW YORK.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 334,002, dated January 12, 1886.

Application filed May 20, 1885. Serial No. 166,127. (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
5 useful Improvements in Baling-Presses; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

10 Figure 1 is a side elevation of a press constructed in accordance with my invention. Fig. 2 is a perspective view of the automatic feeding devices. Fig. 3 is a perspective view of the means constituting the connection be-
15 tween the pitman and traverser. Fig. 4 is a bottom plan of the press-box, showing the manner of applying the axle thereto. Fig. 5 is a plan view of the power-applying de-
20 vices.

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

This invention relates to that class of baling-presses for which Letters Patent Nos. 132,566 and 132,639 were granted and issued to me
25 October 29, 1872, and for which numerous other Letters Patent have been granted me since that day, particularly No. 240,973, dated May 3, 1881; and it consists in certain im-
30 provements which I will now proceed to describe, and will point out particularly in the claims at the end of this specification.

Referring to the drawings, A represents the bale-chamber of the press; B, the press-box; C, the condensing-hopper, and D the trav-
35 erser, all said parts occupying substantially the same relation to each other that they occupy in other presses of this class.

The condensing-hopper C is provided with a movable condenser, U, which is connected
40 to the traverser by the slide-frame, and operates to condense the loose material and carry it over the opening in the press-box in position to be forced down into the press-box in front of the traverser. The traverser recip-
45 rocates within the press-box, and at each forward movement forces a charge or section of material into the bale-chamber.

For the purpose of preventing the return of the pressed material upon the withdrawal of
50 the traverser, suitable retainers, T, are employed. The power end of the press is con-

nected to the press-box and bale-chamber by a longitudinal timber, V, and the connection is braced and supported by means of stay-rods IIII and uprights H H. To further strength- 55
en the connection, the staff E of the traverser is extended beyond the point where the pitman K is jointed to it, as shown in Fig. 3, and is provided with a cross-head, W, formed by slotting its ends and inserting a piece of iron 60
of sufficient length to project on both sides, the arms of which cross-head slide in ways under the planks or supports *xx* of the power-frame. By this arrangement the outer end of the traverser-staff, in both its forward and 65
backward movements, is held down firmly to the connecting-timber V.

The power-gear M is of oblong form, and is constructed with teeth, which are graduated both ways from each of four points, *z*, the small- 70
est teeth being at said points *z* and the largest ones midway between any two such points. The teeth are also of long and gradually-tapered form. Co-operating with the power-gear is the crank-gear L, the teeth of 75
which mesh with the teeth of the power-gear, but are fewer in number, and are graduated both ways from only two points. One revolution of the power-gear causes two revolutions of the crank-gear, and greatly increases the 80
power during the pressing operation, and correspondingly increases the motion on reversing the power.

Secured to the crank-gear L is a crank, *l*, cast solid or made in parts, and preferably 85
having an upper bearing, *l'*, a lower bearing, *l''*, and an intermediate wrist, *l'''*, to which the pitman K is connected. The sweep or horse-lever F may be rigidly fixed to the larger gear, or it may be pivoted thereto and made 90
to engage with stops on said gear, as shown, and the form of gears may be varied, so as to cause the horses to travel a greater or less distance and proportionately increase or diminish the power, all substantially as shown and set 95
forth in Letters Patent No. 240,973, hereinbefore referred to.

I apply to this machine an automatic feed device as follows: To the top of the standards H, I locate two pivoted pieces of wood, 2 2, and 100
secure arms 3 3 to them firmly, and pivot the outer ends of the arms 3 3 to the feed blade or

head 4, and I extend one end of the top arm 3 past top journal 2, and at the outer end I attach a weight, 5, sufficiently heavy to overbalance and elevate the feed-blade 4. To the lower arm 3, I attach a chain, 6, and at the point of attachment I connect the arms 3 3 together, as shown, in order to strengthen the fastening. The other end of the chain 6, after passing around under roller 7, between the traverser-horns, I secure to girt 8, which is firmly secured in the frame of the press or hopper. The chain 6 might be attached to the traverser or horns or projections from the same; but in such case the chain must follow it and dangle about, whereas in the construction shown the traverser or roller 7 only strikes it near the backward limit of its stroke, thus drawing the feeder down, the feed-blade 4 passing through the hopper C and into the press B, carrying the charge of hay with it in front of the traverser D, by means of which, in connection with the power machinery, successive charges are forced into the bale-chamber and formed into bales.

It should be observed that as the traverser nears its backward limit of stroke it draws down the feeder, and that as by means of the combination of gear M and L the traverser is reversed to this limit twice during one round of the horse-lever, the feeder is drawn down twice and feeds down two charges to one round of the horse-lever or team; also, that by the combination and operation of the same gear-wheels, M and L, the motion is so varied as to be very rapid at and near the backward limit of traverser stroke, thereby passing the feeder down and withdrawing it again so rapidly as to consume very little time, and correspondingly increases the time for feeding another charge. This latter advantage applies also to single-stroke eccentric gear, as shown in Letters Patent No. 132,639, granted me October 29, 1872, and altogether greatly increasing the capacity, time, and convenience in feeding.

Pitman K might attach direct to traverser D, or any other suitable connection be substituted between the gearing and traverser and between the traverser and feeder with the same effect from the gear.

I now mount this machine on trucks, the axles of the same passing through the base-timbers of the frame, as shown, in order to secure a firm and cheap fastening, and also drop the machine so low that the connection between the press and power may be easily bridged for the horses to pass over it.

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

1. The combination, with the hopper, of the feed blade or head, the pivoted arms by which it is supported, the traverser, and the chain, whereby as the traverser is retracted it operates to positively pull upon the chain and causes the descent of the feed-blade, substantially as described.

2. The combination, with the hopper, of the feed blade or head, the pivoted arms by which it is supported, the weighted arm, the traverser, and the chain, whereby after the feed-blade has been caused to positively descend by the operation of the traverser the weighted arm will cause said feed-blade to be automatically raised, substantially as described.

3. The combination, in a baling-press, of gears M L, connected, and in combination with traverser D and an automatic feeder, substantially as set forth, whereby the feed device is operated twice to one revolution of the horse-lever or power-shaft.

4. In a baling-press, a pair of oblong or eccentric gears and a crank connected to and in combination with a reciprocating traverser and feed device, whereby the motion of the latter is accelerated and time for feeding proportionately increased, substantially as set forth.

P. K. DEDERICK.

Witnesses:

CYRUS R. DEDERICK,
R. J. VAN SCHOONHOVEN.