

**No. 682,372.**

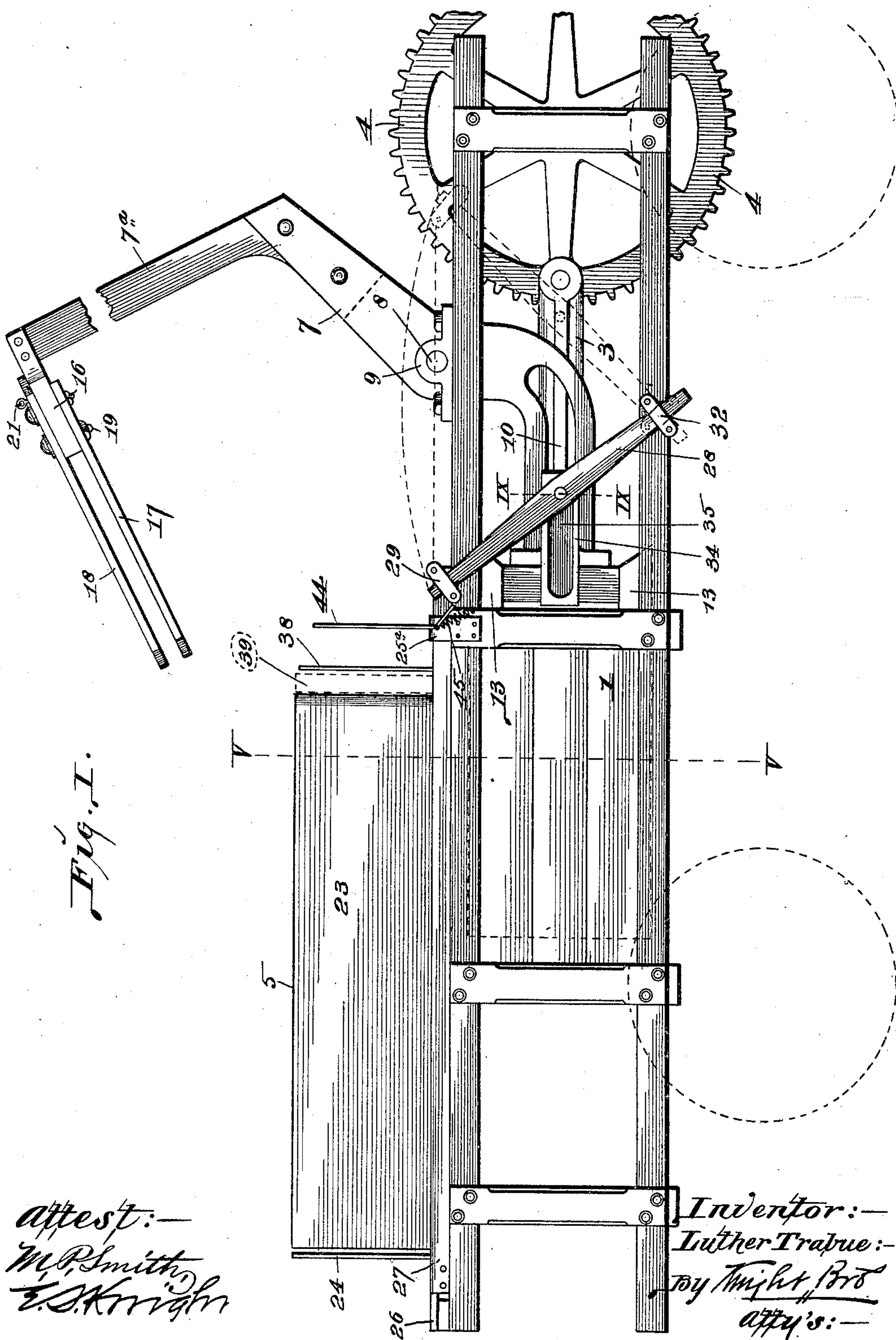
**Patented Sept. 10, 1901.**

**L. TRABUE.**  
**BALING PRESS.**

(Application filed Mar. 30, 1901.)

(No Model.)

**3 Sheets—Sheet 1.**



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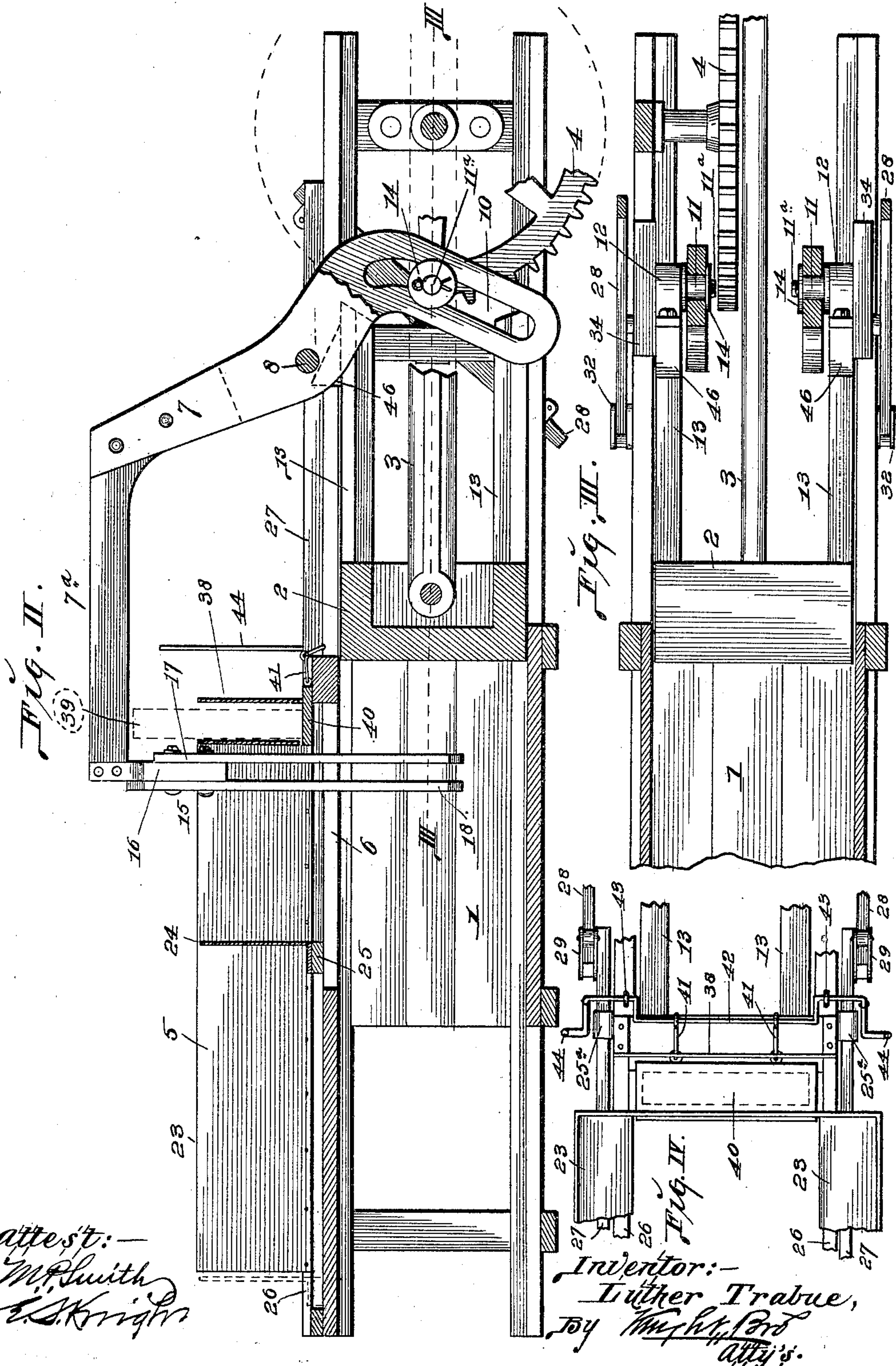
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3 Sheets—Sheet 2.



attest:—  
M. Smith  
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Fig. IV.  
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Att'y's.



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(No Model.)

Inventor:-  
Luther Trabue,  
By Thos. H. Bro atty's.



# UNITED STATES PATENT OFFICE.

LUTHER TRABUE, OF GIRARD, ILLINOIS.

## BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 682,372, dated September 10, 1901.

Application filed March 30, 1901. Serial No. 53,584. (No model.)

*To all whom it may concern:*

Be it known that I, LUTHER TRABUE, a citizen of the United States, residing at Girard, in the county of Macoupin and State of Illinois, have invented certain new and useful Improvements in Baling-Presses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to certain improvements in presses for baling hay, straw, excelsior, and the like; and my invention consists in features of novelty hereinafter described, and pointed out in the claims.

Figure I is a side elevation of my improved press. Fig. II is a vertical longitudinal section of the press. Fig. III is a detail horizontal section taken on line III III, Fig. II. Fig. IV is a detail top view showing the division-board-dropping mechanism and parts adjacent thereto. Fig. V is an enlarged vertical transverse section taken on line V V, Fig. I. Fig. VI is a front view of the feeder-head. Fig. VII is a perspective view of the division-board-dropping mechanism. Fig. VIII is an enlarged detail section taken on line VIII VIII, Fig. V. Fig. IX is an enlarged detail section taken on line IX IX, Fig. I.

1 represents the body of the press, which may be of any form of construction.

2 represents the traverser, 3 the pitman, and 4 a drive-wheel, to which the pitman is connected and which imparts movement to the traverser.

5 represents a hopper located on top of the press, the inner end of which is located over the feed-opening 6 of the press.

My invention in part relates to a feeder for forcing the material into the baling-chamber. This feeder consists of a pair of arms 7, pivoted at 8 in journal-boxes 9, secured to the top of the press. The lower ends of the arms 7 are formed with slots 10, the inner ends of which are curved upwardly, as shown in Fig. I.

11 represents friction-rollers fitting in the slots 10 and which are keyed on pins 11<sup>a</sup>, by which they are connected to brackets or boxes 12, that are made fast to projections 13 of the traverser. The outer ends of the

pins 11<sup>a</sup> are provided with washers 14 to keep the arms from being disengaged from the rollers 11. It will thus be seen that when the traverser recedes the feeder will be moved from the position shown in Fig. I to the position shown in Fig. II by the rollers 11 coming in contact with the ends of the slots 10. By curving the inner ends of the slots, as stated, the first part of movement of the feeder will be more gradual or less abrupt than it would be if the rollers came against a positive shoulder at the ends of the slots. The upper ends of the arms have secured to them an extension 7<sup>a</sup>, to the forward end of which the head 15 of the feeder is secured. The head 15 consists of a block 16, rigidly secured to the part 7<sup>a</sup> of the arms and to one side of which is connected a fixed finger 17, while on the other side of the head-block there is pivotally connected a pair of fingers 18, (see Fig. VI,) the lower ends of which are serrated or notched, so as to take hold of the material, and I also prefer to serrate or notch the lower end of the finger 17. The fingers 18 are pivoted to the block 16 by bolts 19, which may fit in any one of a series of holes 20, formed in the fingers, thus providing for the adjustment of the fingers on the head. The upper ends of the fingers 18 are drawn together and the lower ends forced apart by means of a coiled spring 21. The extent of movement of the fingers under the influence of the spring is controlled by an adjustable wedge 22, connected to the block 16 between the upper ends of the fingers and which may be moved up or down to regulate the amount of outward movement imparted to the lower ends of the fingers 18 by the spring 21. The inner end of the hopper 5 is made with sloping sides 23, as seen in Fig. V. As the head enters the hopper the outer corners of the fingers 18 come in contact with the sloping sides 23 of the hopper, and the lower ends of the fingers are thus forced inwardly, and as they are at this time pressing against the material in the hopper they will draw such material inwardly as they themselves are forced inwardly. This contracts the material horizontally and causes it to more freely enter the baling-chamber of the press. By the time the lower ends of the fingers reach the bottom of the hopper they are contracted, so that they will enter the



bal-ing-chamber, as shown in Fig. II. As the head of the feeder recedes from the hopper the lower ends of the fingers will be thrown outwardly again into the position shown in Fig. VI by the action of the spring 21.

Another part of my invention relates to the mechanism for drawing inwardly the outer end of the hopper to press the material together before it is forced into the bal-ing-chamber.

24 represents the outer end of the hopper, which is adapted to move longitudinally of the press between the sides of the hopper. The end 24 is supported on a bar 25, that fits on top of the press beneath strips 26, the bar moving freely back and forth between the top of the press and the strips 26. Secured to the bar 25 are arms 27, that extend lengthwise of the press to near the power end of the press, where they pass through keepers 25<sup>a</sup>. The arms are engaged by levers 28, as shown in Figs. I and VIII. The manner of connecting the levers to the arms 27 consists of short straps 29, pivoted to the arms 27 at 30 and between which the ends of the levers fit. 31 represents rollers journaled between the straps 29 and which receive the impact of the levers as the latter are moved. The lower ends of the levers are pivotally connected to the frame of the press by means of straps 32, between which the lower ends of the levers fit. These straps have rollers and are otherwise made and arranged in the same way as the straps 29. The levers are pivoted to blocks 34, carried by the traverser of the press, the blocks having grooves 35, in which fit projections 36, (preferably in the form of antifriction rollers,) connected to the levers by bolts 37. (See Fig. IX.) The grooves 35 are of considerable length, so that the levers 28 will not be moved by the traverser until the latter has made a considerable part of its rearward movement, when the ends of the grooves will come against the rollers 36 and force the levers 28 from the position shown in full lines, Fig. I, to the position shown in dotted lines. As this movement of the levers takes place, the movable end of the condenser will be drawn inwardly and compress the material over the feed-opening of the press prior to its being forced into the press by the feeder. As the levers are moved by the traverser their ends freely move through the straps 29 and 32, as will be readily understood, and on the forward movement of the traverser the levers will be moved back to the position shown in full lines, Fig. I, causing the end of the condenser to be moved again to the outer ends of the sides of the hopper.

Another part of my invention relates to the mechanism for dropping the division-boards into the bal-ing-chamber.

38 represents a rectangular pocket located behind the inner end of the hopper and into which the division-boards 39 are adapted to be slipped by hand. At the bottom of the pocket 38 is a movable strip 40, that rests on

top of the press. (See Figs. II and VII.) This strap is connected by links 41 to a crank-shaft 42, journaled at 43 to the timbers of the press. The shaft has a handle 44 at each end. When the operator is ready to have the division-board dropped into the press, he rocks the shaft 42 toward the power end of the press, which causes the strip 40 to be withdrawn from beneath the division-board, and the latter will drop by gravity into the bal-ing-chamber. The rock-shaft is held in either position to which it is moved by means of springs 45. 46 represents projections secured to the projections 13 of the traverser and which come against the rock-shaft 42 as the traverser advances and forces the shaft back to its former position, thus bringing the strip 40 beneath the pocket 38 ready to receive the next division-board.

I claim as my invention—

1. In a bal-ing-press, a feeder having a head comprising a fixed finger and pivoted spring-actuated fingers, overlapping the fixed finger and means for regulating the movement of the fingers in combination with a hopper.

2. In a bal-ing-press, a feeder having a head provided with vertically-adjustable spring-actuated pivoted fingers in combination with a hopper having inclined sides adapted to move said fingers toward each other, substantially as set forth.

3. In a bal-ing-press, a feeder having a head provided with pivoted spring-actuated fingers, and a wedge between the fingers for regulating the movement of the fingers, in combination with a hopper having inclined sides adapted to move said fingers toward each other, substantially as set forth.

4. In a bal-ing-press, a feeder having a head consisting of a fixed finger, pivoted spring-actuated fingers overlapping the fixed finger, and adjustable means for limiting the movement of the fingers, in combination with a hopper having inclined sides, adapted to move the pivoted fingers toward each other, substantially as set forth.

5. In a bal-ing-press, the combination of a hopper having a movable end, arms secured to the movable end and extending lengthwise of the press toward the power end thereof, a traverser, and levers pivoted directly to the traverser in advance of the ends of said arms, the upper ends of said levers engaging said arms and the lower ends of said levers having pivotal connection with the frame of the press.

6. In a bal-ing-press, the combination of a hopper having a movable end, arms connected to said movable end, and which extend horizontally toward the power end of the press, a traverser and levers pivoted to the traverser; the upper ends of said levers engaging said arms and the lower ends of said levers having pivoted connection with the frame of the press, substantially as set forth.

7. In a bal-ing-press, the combination of a condenser having a movable end, arms con-



5 nected to said movable end and which extend horizontally toward the power end of the press, a traverser, and grooved blocks carried by the traverser, levers having projections fitting in the grooves formed in the blocks, and means for connecting the upper ends of said levers to said arms and for connecting the lower ends of said levers to the frame of the press, substantially as set forth.

LUTHER TRABUE.

In presence of—  
GEORGE WOLFE,  
S. O. SMITH.