

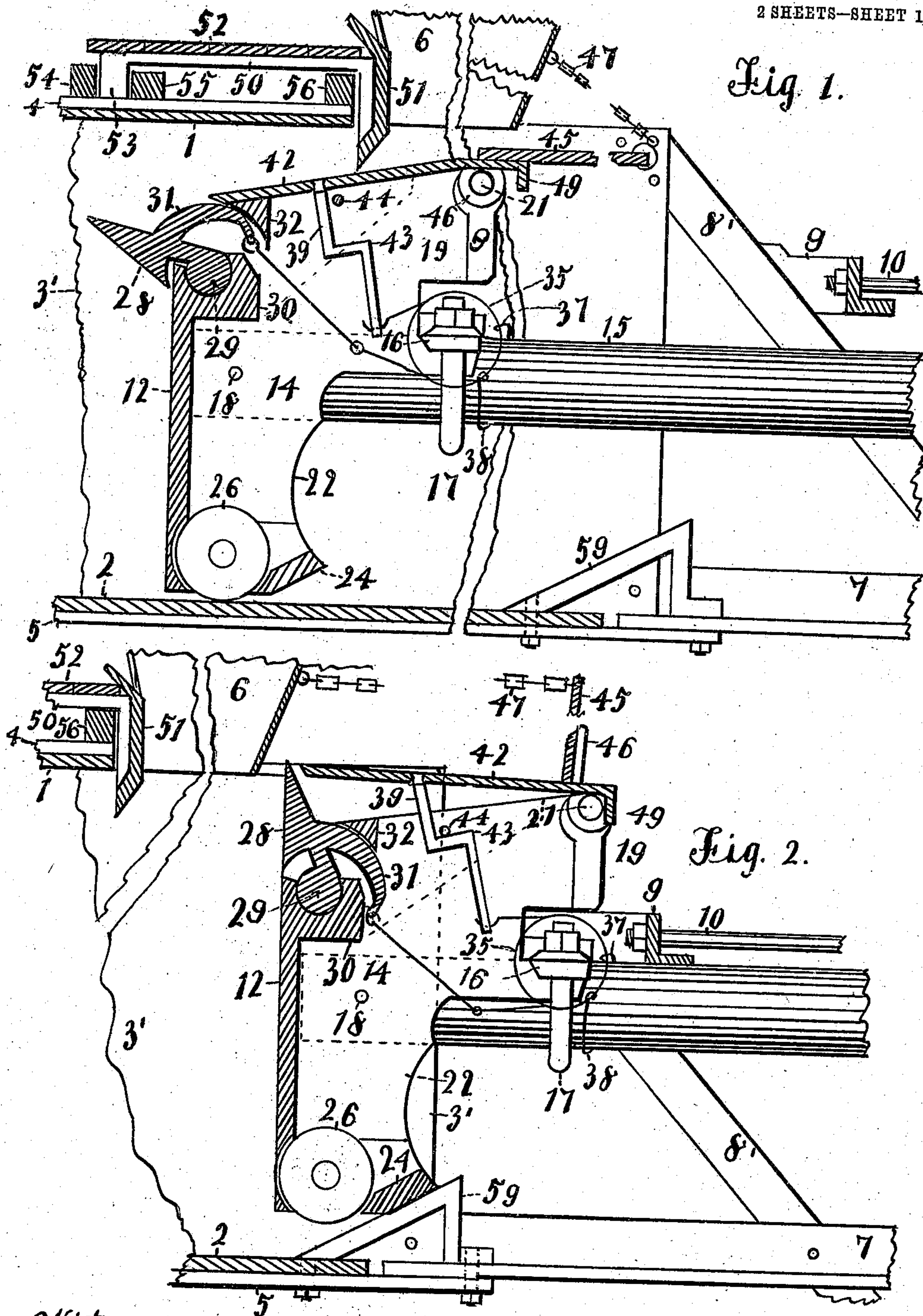
No. 848,054.

PATENTED MAR. 26, 1907.

G. SCHUBERT.  
PLUNGER FOR BALING PRESSES.

APPLICATION FILED SEPT. 2, 1905.

2 SHEETS—SHEET 1.



Witnesses:  
J. M. Crang  
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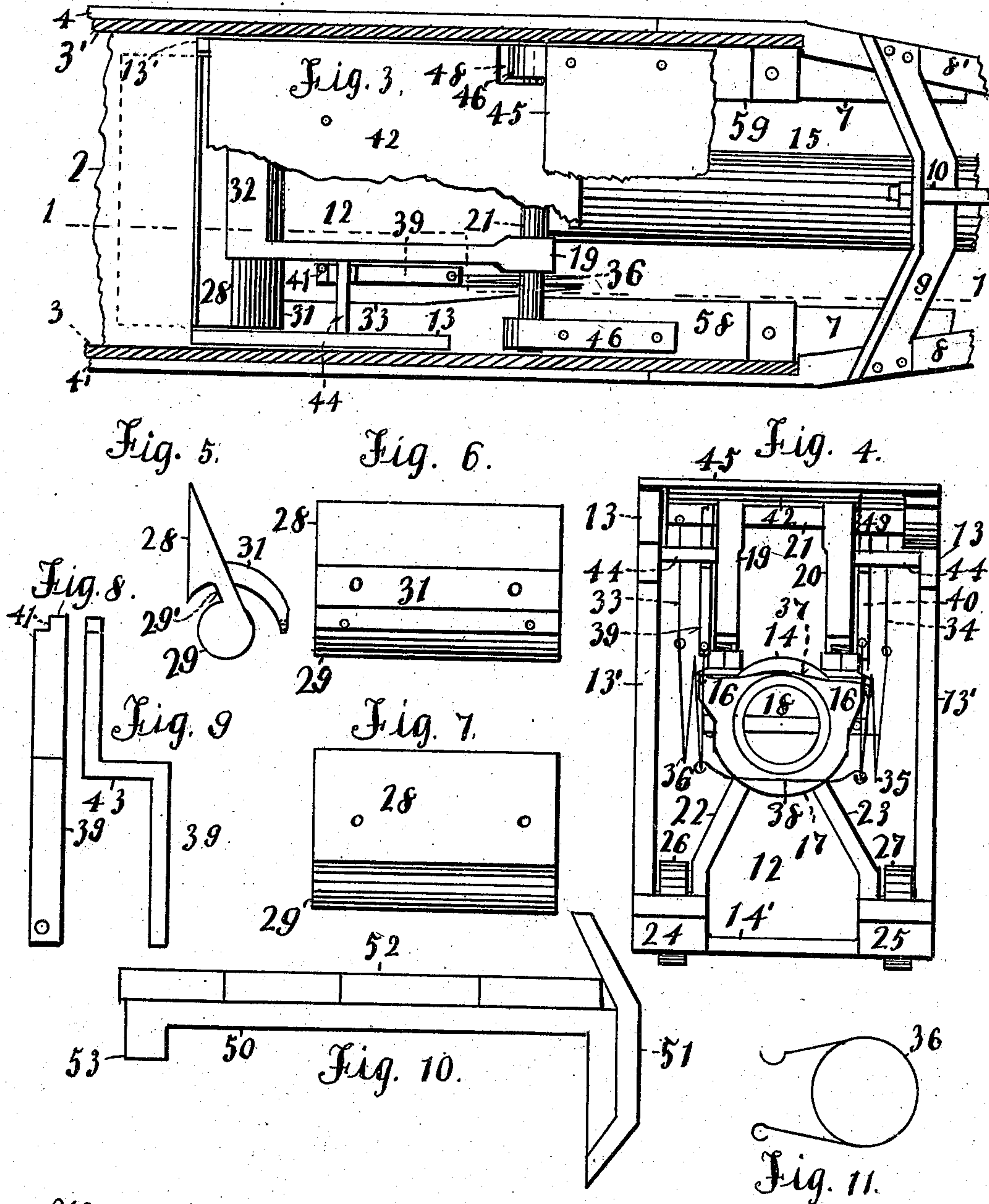
Inventor.  
George Schubert

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Witnesses:  
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# UNITED STATES PATENT OFFICE.

GEORGE SCHUBERT, OF FORT WORTH, TEXAS.

## PLUNGER FOR BALING-PRESSES.

No. 848,054.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed September 2, 1905. Serial No. 276,797.

*To all whom it may concern:*

Be it known that I, GEORGE SCHUBERT, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and useful Plunger for Baling-Presses, of which the following is a specification.

This invention relates to a plunger for a baling-press, in which said plunger is provided with a trip projecting upward in a rigid position on the inward movement of the plunger and capable of being depressed or tripped as the plunger moves out from beneath the troath of the press, and thus avoid any hanging or sticking of the plunger in the troath of the press.

My present improvements relate to detail parts of said plunger and means to stop such plunger on a heavy rebound and in simplifying the construction of a tucker used in connection with such plunger.

In the drawings is shown in Figure 1 a longitudinal vertical section on line 1 1, Fig. 3, with the parts beyond shown in full lines and with one of the stay-bars shown in front of said section-line and with the hopper and parts of the press principally broken away and the plunger depressed or tripped as seen when withdrawing from beneath a heavy pressure; Fig. 2, a similar view with the plunger shown at the end of its rearward movement in position to move forward and make the pressure; Fig. 3, a top plan view of a part of the press only, the hopper and the upper parts of the press being broken away to show parts beneath in full lines; Fig. 4, a rear view of said plunger; Fig. 5, an end view of the improved trip; Fig. 6, a rear side view of said trip, and Fig. 7 a front side view of same trip. Figs. 8 and 9 are detail edge and side views of stay-bars; Fig. 10, a detail side view of the tucker, and Fig. 11 a detail side view of a spring.

Referring to Figs. 1 and 3, the top and bottom plates 1 and 2 and the side plates 3 and 3' are secured by the corner-bars 4, 4', and 5, forming the usual bale-chamber or body of the press, with a hopper 6 secured to the plates 3 and 3', and the extension-beam 7 is secured to the rear end of the corner-bars 5, all as in common use.

8 and 8' represents braces extending from the rear and upper corner of the side plates 3 and 3' to the extension-beam a few feet beyond the press-body. 9 is a cross-bar secured on said braces 8 and 8' high enough

to be above the plunger-bar 15 and with its center perforated to receive a top rod 10.

45 represents the usual top plate of the plunger, rigid on its hinges 46, which hinges are pivoted on a transverse shaft or bar 21, later on noted. The rear end of said plate 45 is anchored to the hopper by a chain 47. 42 is a similar plate resting with its rear end on the transverse bar 21 and beneath the plate 45 and with its rear end bent down, forming the heel 49, to avoid its disengaging said bar 21 and cut out at 48 to clear the hinges 46. The front end of said plate 42 is raised by stay-bars 39 and 40, later on described.

The plunger 12 is preferably formed or provided with flanges 13 and 13' and 14', with the upper portion of the said flanges 13 and 13' extending back some distance, as indicated in dotted lines in Figs. 1 and 2, and the edge sloping down toward the front of the plunger, forming a support for the outer sides of the plate 42.

14 is the usual hollow boss to receive the usual plunger-bar 15. 16 16 are lugs formed on the rear end and each side of said boss 14 to receive a U-bolt 17 to clamp the plunger-bar 15, and said bar is additionally secured by a perforation in rear its front end to receive the pin 18.

19 and 20 are ribs extending from the boss 14 upward to the same height of the side flanges 13 and 13', and projecting rearward beyond said side flanges and having in their rear and upper end a transverse bar 21, projecting beyond each side to near the width of the plunger. 22 and 23 are similar ribs extending from said boss 14 downward and slightly outward and joined by heels 24 and 25, formed on each rear and lower corner of the plunger, with a portion of their rear ends beveled upward and closed to form heels for the purpose later on noted. 26 and 27 are travelers journaled in the hollow of said heels 24 and 25 in position to travel on the lower plate 2.

44 44 are stays extending from near the center and upper portion of the side flanges 13 and 13' to the ribs 19 and 20.

28 is a trip one or two inches shorter than the width of the plunger to retain stock at each end of said trip for the usual retainers (not shown) and is seated or pivoted with its heel 29 in the stock 30 extending from the ribs 19 to 20 and with the curved web 31 projecting rearward to and beneath the stock 32, formed between the ribs 19 and 20, with



the body of said trip resting against the end of said stock 32 when erect, as seen in Fig. 2. The web 31 is formed separate of the trip 28 and placed in the plunger in position and then secured to said trip, and thus prevent the trip 28 from disengaging the plunger when turned down, as seen in Fig. 1, by reason of the web 31 being of ample width to not disengage from beneath the stock 32.

33 and 34 are links anchored with one end in the rear edge and near each end in the web 31 (see Figs. 1 and 4) and with their other ends in the springs 35 and 36. Said springs 35 and 36 are coiled over the nut of the U-bolt 17 and the projections or lugs 16 16 and secured in positions by wires 37, passing over above the plunger-bar, and a wire 38, passing beneath the plunger-bar 15, with a spring on each side of said plunger-bar 15. 39 and 40 are stay-bars pivoted with a tenon 41 in the forward end of the plate 42, projecting downward one on each side of the ribs 19 and 20 and having an offset 43, (see Figs. 1, 2, and 9,) limiting their upward movement by the stays 44 and with the springs 35 and 36 anchored to their lower ends in a manner to raise said plate 42.

The tucker is formed of the side bars 50, with a head 51 secured thereto its front end, and boards 52 on their upper side as a platform for the feeder, and resting with their heels 53 on the press-body between cross-bars 54 and 55, secured on the press, and resting with their front end when down on the cross-bar 56, secured on the front end of the press.

58 and 59 represents wedges or inclines secured one on each side and lower and rear end of feeding-chamber in position to be engaged by the beveled heels 24 and 25 of the plunger.

In service the plunger moves forward in the position as seen in Fig. 2, the tucker is pressed up by the projecting material, and the front end of the plate 42 yields downward from such material, and as the pivot of the trip 28 is back of the vertical line of pressure of its upper end it will aid in kicking the plunger back as soon as released from the forward pressure and allow the trip 28 to take the position seen in Fig. 1, the groove 29' passing over the projecting stock of the plunger. Thus the plunger 12 is not only reduced in height, but also represents a wedge form to draw out from beneath the troath of

the press. After the plunger is released from the heavy downward pressure the springs 35 and 36 will raise the plate 42 and the trip 28 to the position seen in Fig. 2. As the plunger nears the end of its rearward movement the heels 24 and 25 take the inclines 58 and 59 and raise the plunger of the travelers 26 and 27 and slide up the said incline until the force of the rebound is expanded or until the plunger-bar 15 raises against the cross-bar 9. With this kind of a plunger a much simpler and cheaper tucker can be employed, as there are no projecting rigid parts of the plunger to interfere with the downward-projecting part of the tucker.

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

1. In a baling-press, the combination, with a transverse bar supported by the plunger, a plate hinged thereon and a plate having its rear end supported by said transverse bar and its front portion pressed upward by a spring or springs, and stays a trip pivoted in the plunger and projecting upward, means to raise said trip, for the purpose specified.

2. In a plunger for a baling-press, the combination, with flanges and ribs, stays 44 between said flanges and ribs, a transverse bar carried by said ribs, a plate pivoted thereon, and a plate 42 resting thereon, stay-bars having an offset and pivoted in said plate 42, a trip pivoted in said plunger and projecting upward, springs arranged to raise said trip and plate 42, for the purpose specified.

3. In a plunger for a baling-press, the combination, with a trip pivoted in the front portion of said plunger to form an extended face of said plunger, a yielding plate back of said trip, for the purpose specified.

4. In a plunger for a baling-press the combination, with a trip pivoted in said plunger projecting upward, a yielding plate back of said trip, a tucker formed of side bars, a head thereon, heels on said bars resting between cross-bars on the press-body, boards on said bars, for the purpose specified.

5. In a plunger for a baling-press the combination, with a trip in said plunger projecting upward, heels on said plunger to engage an incline plane, for the purpose specified.

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Witnesses:

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