(No Model.) 2 Sheets—Sheet 1.

P. & L. TRABUE.

BALING PRESS.

No. 511,665. Patented Dec. 26, 1893.

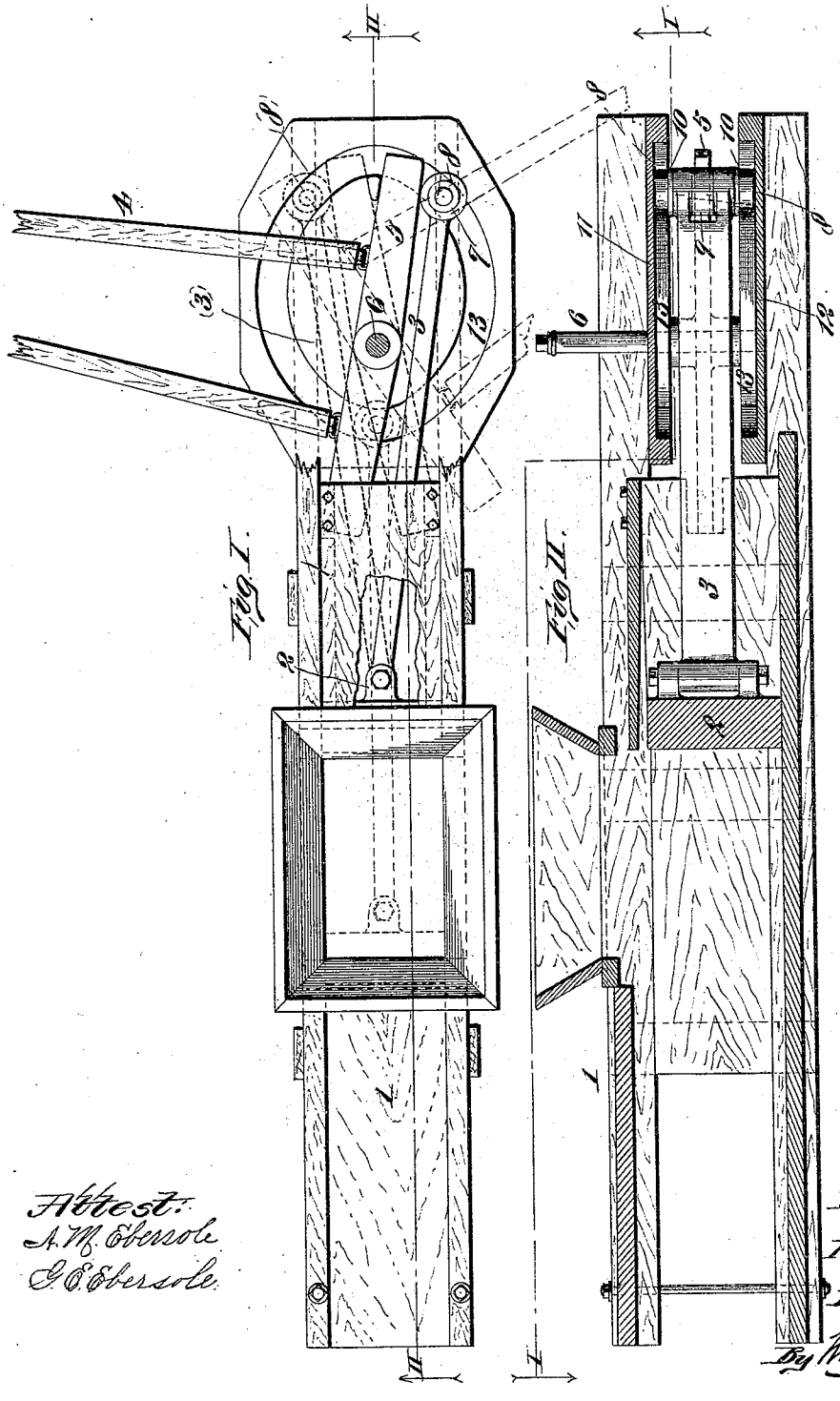

Fig. I.

Fig. II.

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(No Model.) 2 Sheets—Sheet 2.

P. & L. TRABUE.

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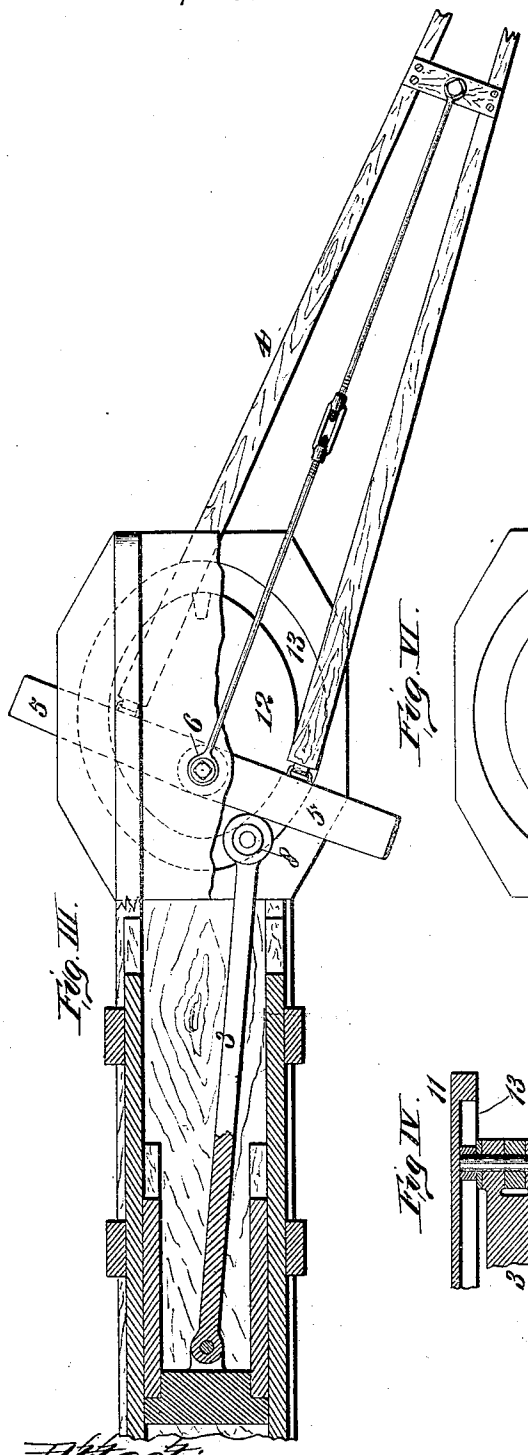

Fig. III.

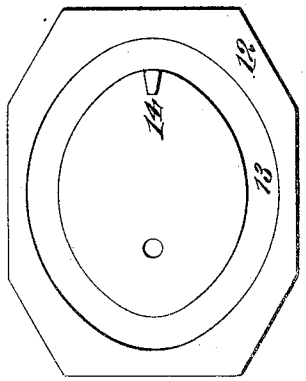

Fig. IA.

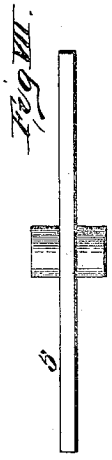

Fig. IIA.

Fig. IIB.

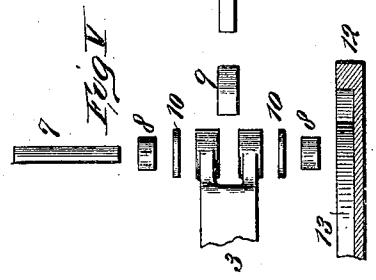

Fig. IIC.

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UNITED STATES PATENT OFFICE.

PAUL TRABUE AND LYMAN TRABUE, OF GIRARD, ILLINOIS.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 511,665, dated December 26, 1893.

Application filed August 22, 1893. Serial No. 483,776. (No model.)

To all whom it may concern:

Be it known that we, PAUL TRABUE and LYMAN TRABUE, both of Girard, in the county of Macoupin and State of Illinois, have invented a certain new and useful Improvement 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.

Our invention relates to an improved power mechanism for baling presses, and our invention consists in features of novelty hereinafter fully described and pointed out in the claim.

Figure I is a top view of our improved press, part in longitudinal, horizontal section, taken on line I—I, Fig. II. Fig. II is a vertical, longitudinal section, taken on line II—II, Fig. I. Fig. III is a detail, horizontal section, part in top view. Fig. IV is a detail, vertical section, showing part of the pitman, and part of the cams. Fig. V is a view showing part of one of the cams, in section, part of the pitman, the friction rollers and washers, and the connecting pintle, the parts being disconnected. Fig. VI is a face view of one of the cams. Fig. VII is a view of the beam.

We have shown our invention applied to a press of the reversible type.

Referring to the drawings, 1 represents the body of the press, 2 the plunger, 3 the one-part pitman, and 4 the sweep. These may be of any ordinary form or construction.

5 is a beam to which the sweep is secured, and which is pivoted to the frame of the press by an eccentrically arranged pin 6. To the outer end of the pitman are journaled three anti-friction rollers by means of a pintle 7. There is an upper and lower outer roller 8, and an intermediate roller 9. Between the upper and lower rollers and the pitman we prefer to place washers 10. See Figs. II and V.

11 is an upper casting and 12 a lower casting secured to the frame of the press above and beneath the beam respectively, and each having an elliptical depression forming a cam groove 13, to receive the anti-friction rollers 8, as shown in Fig. II. The beam 5, as the sweep is swung from side to side, bears against the anti-friction roller 9. The eccentrically arranged pin 6 is located near the forward parts of the grooves. These grooves are continuous. The movement of the sweep, in either direction is limited by the beam coming against a lug 14 on one of the castings 11 or 12.

In operating the press, the beam is moved by the sweep against the roller 9 of the pitman, and the continued movement of the sweep causes the forward movement of the plunger, the rollers 8 moving in the cam grooves 13, and the shape of the grooves is such that the first part of the movement of the plunger is rapid, while as the plunger reaches the limit of its forward movement, and much power is needed, the speed decreases, and the power increases. As the point of bearing between the roller 9 and beam 5 passes a line drawn through the pivot 6 of the beam, the plunger recedes under the expansive action of the compressed material, the rollers 8 moving in the cam grooves on the other side of the casting from that occupied by them in moving forward. The sweep is then reversed, and the operation repeated.

We are aware of the patent issued to the Collins Plow Company, August 19, 1890, No. 434,760, and do not claim anything therein shown and described.

We claim as our invention—

A baling press comprising a plunger, a one-part pitman having upper, lower, and intermediate rollers at its outer end, upper and lower castings, each casting having a continuous elliptical groove on the inner face thereof, the eccentrically arranged pivot-pin located near the forward parts of the grooves, and a sweep having a beam located on the pivot pin between the castings; the upper and lower rollers playing in their respective grooves, and the beam adapted to bear on the intermediate roller; whereby, with a single pitman, a long range of movement of the plunger is afforded, the first part of the forward movement of the plunger being rapid, and the latter part of the forward movement of the plunger being slow and powerful; substantially as described.

PAUL TRABUE.
LYMAN TRABUE.

In presence of—
W. H. ROSS,
G. K. YERINGTON.