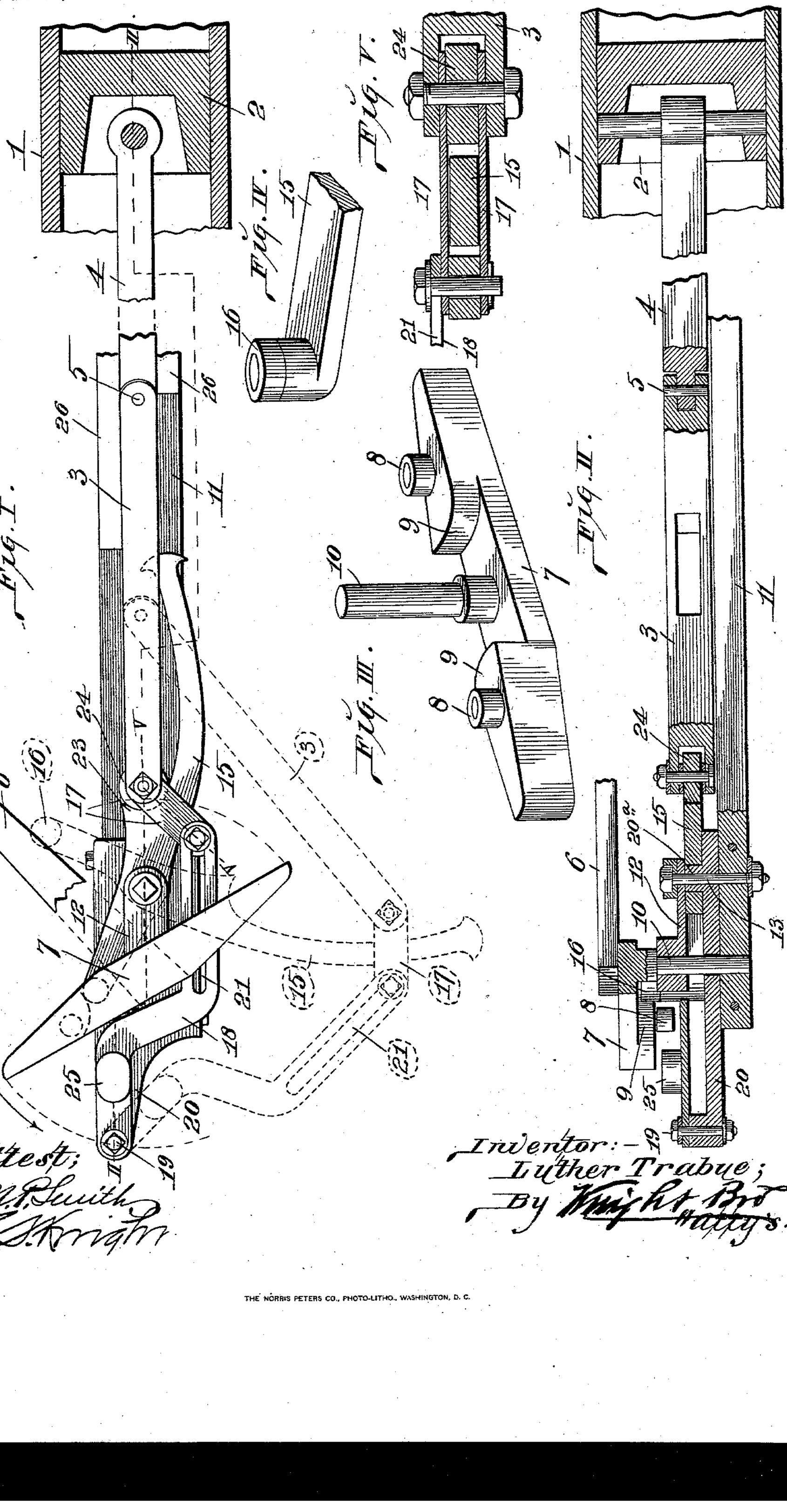
No. 704,718. Patented July 15, 1902.

L. TRABUE.

BALING PRESS.

(Application filed Apr. 7, 1902.)

(No Model.)



UNITED STATES PATENT OFFICE.

LUTHER TRABUE, OF GIRARD, ILLINOIS, ASSIGNOR TO THE OHIO HAY PRESS COMPANY, OF BELLEVUE, OHIO, A CORPORATION.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 704,718, dated July 15, 1902.

Application filed April 7, 1902. Serial No. 101,851. (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 the power end of a press for baling hay, cotton, straw, excelsior, and the like; and my invention consists in features of novelty hereinafter fully described, and pointed out cut in the claims.

Figure I is a top or plan view of the power end of a press embodying my improvement. Fig. II is a vertical longitudinal section taken on line II II, Fig. I. Fig. III is a bottom perspective view of the cross-head. Fig. IV is a detail perspective view showing one end of the power-lever. Fig. V is an enlarged vertical section taken on line V V, Fig. I.

Referring to the drawings, 1 represents part of the baling-chamber of the press; 2, the plunger or traverser; 3, the inner and 4 the outer section of the pitman, hinged together at 5, and 6 the sweep. The sweep is made fast to a cross-head 7, provided on its lower side with projections 8, that are preferably in the form of antifriction-rollers. The under side of the cross-head is also cut out to form curved cam-shoulders 9, and it (the cross-head) is secured to a shaft 10, journaled in the bed-plate or reach 11 of the press. The upper part of the shaft 10 is supported by an arm 12, connected to the reach 11 by a bolt 13, that also acts as a pivot for a power-lever 15. On one end of the lever 15 is a projection 16. The other and long end of the lever extends between a pair of links 17, that connect the inner end of the section 3 of the pitman to the inner end of an arm 18, the outer end of which is pivoted at 19 to a stationary extension 20 of the reach 11. The part 20 is connected to the reach 11 by the bolt 13, and it has a vertical extension 20^a, that fits between the bolt and the lever 15 and forms the journal-bearing of the lever. The inner end of the arm 18 is formed with a slot 21, in which the bolt fits that connects the arm to the links 17. The lever 15 is provided with a shoulder 23 about midway of its length. This shoulder is adapted to come against a roller 24 on the inner end of the section 3 of the pitman when the lever is moved. The link or arm 18 is provided with a projection 25 on its upper face, so disposed that it will be engaged by the projections 8 on the under side of the cross-head 7. The upper face of the reach 11 is provided with strips 26, between which the pitman fits, as shown in Fig. I.

The operation of the parts is as follows: When the parts are in the position shown in Fig. I, the plunger is in its forward position. As the sweep is moved one of the projections 8 comes against the projection 25 on the arm 18, moving the arm, the section 3 of the pitman, and the lever 15 to the position shown by dotted lines in Fig. I. This causes the retraction of the plunger, and as the sweep continues to move the projection 8 leaves the projection 25, and the continued movement of the sweep and cross-head brings the other end of the cross-head against the projection 16 on the lever 15. As the cross-head continues to revolve the parts are moved back toward and to the position shown in full lines, Fig. I, the plunger being thus advanced. During the latter part of the advance movement of the plunger the cam-shoulder 9 on the cross-head is bearing against the projection 16, and it will be observed that the point of bearing between the cross-head and the projection 16 approaches the center of the cross-head as the plunger reaches the limit of its forward movement, thus exerting great force on the plunger. During the latter part of the forward movement of the plunger the shoulder 23 on the lever is bearing against the roller 24 on the section 3 of the pitman, the lever thus having a direct push against the pitman. When the parts reach the position shown in full lines, Fig. I, the shoulder 9 of the cross-head leaves the projection 16 on the lever,

and the next projection 8 to that which last engaged the projection 25 comes against the projection 25 and the parts are moved back to the position shown in dotted lines to retract the plunger.

The device is simple and effective in operation and is not liable to get out of order.

I claim as my invention—

1. In a baling-press, the combination of a plunger, a sectional pitman, an arm having a fixed pivot and which is connected to the pitman by means of links, a pivoted lever extending between said links and a cross-head adapted to engage said lever and said arm, substantially as set forth.

2. In a baling-press, the combination of a plunger, a sectional pitman, an arm having a fixed pivot and connected to said pitman by means of links, a pivoted lever extending between said links and having a shoulder adapted to engage a friction-roller on said pitman, and a cross-head adapted to engage said lever and said arm, substantially as set forth.

3. In a baling-press, the combination of a plunger, a sectional pitman, a pivoted arm, links connecting said arm to said pitman, a lever extending between said links and a cross-head having projections adapted to engage a projection on said arm and having cam-shoulders adapted to engage a projection on said lever, substantially as set forth.

4. In a baling-press, the combination of a plunger, a jointed pitman, a pivoted arm having a link connection with said pitman and which said arm has a slot-and-bolt connection, a pivoted lever fitting between said links, and a cross-head adapted to engage said lever and said arm, substantially as set forth.

5. In a baling-press, the combination of a plunger, a jointed pitman, a reach having strips to guide said pitman and a pivoted arm, a link connection between said arm and pitman, a pivoted lever and a cross-head having projections for engaging said arm and having cam-shoulders for engaging said lever, substantially as set forth.

6. In a baling-press, the combination of a plunger, a jointed pitman, a pivoted arm connected to said pitman, a pivoted lever engaging the connection between said arm and pitman, and a cross-head adapted to engage said lever and arm, substantially as and for the purpose set forth.

LUTHER TRABUE.

In presence of—
J. H. TIETSORT,
S. O. SMITH.