

G. Ertel.
Beater-Press.

N^o 72728

Patented Dec. 31. 1867.

Fig. 1.

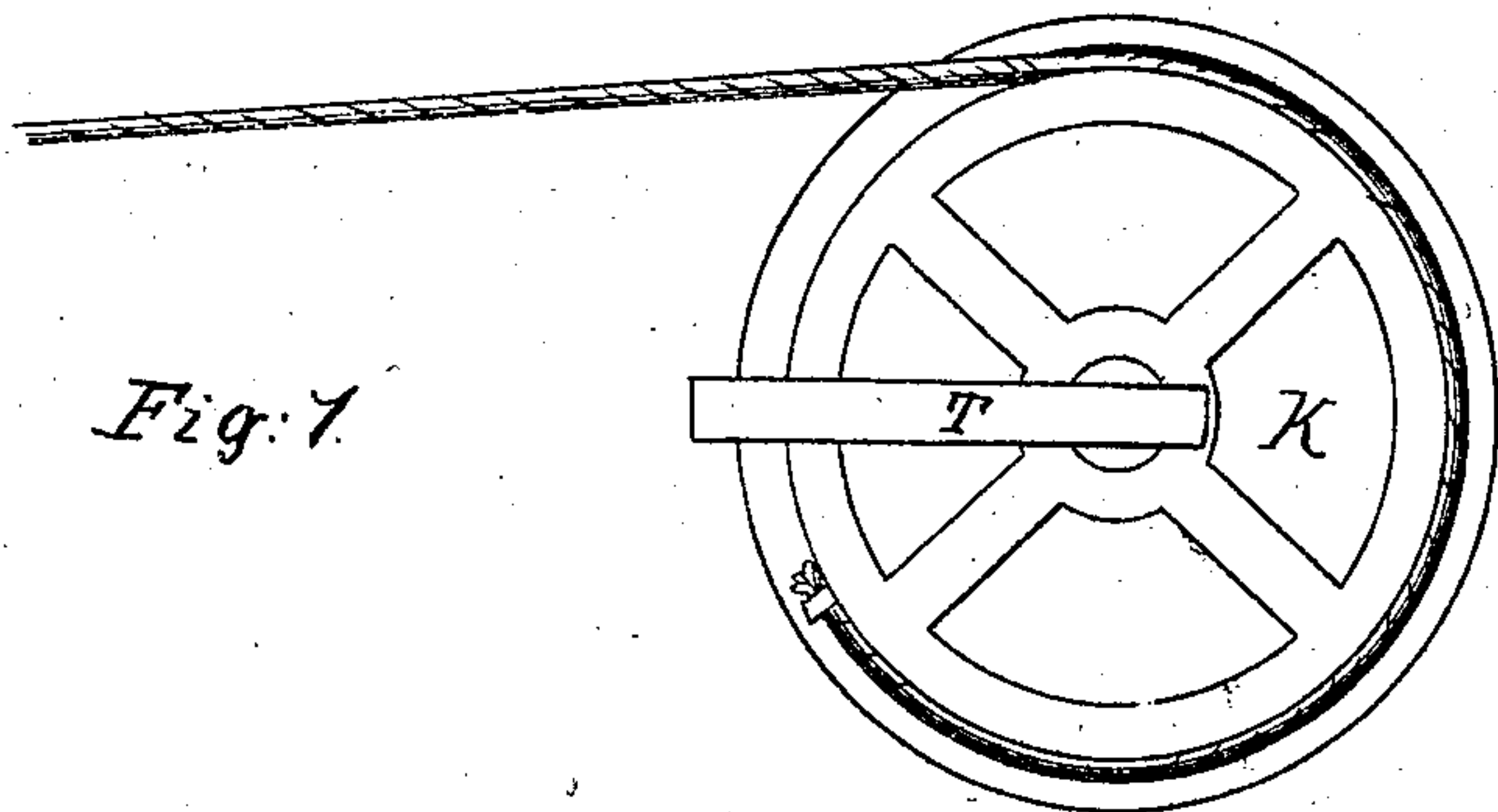


Fig. 2.

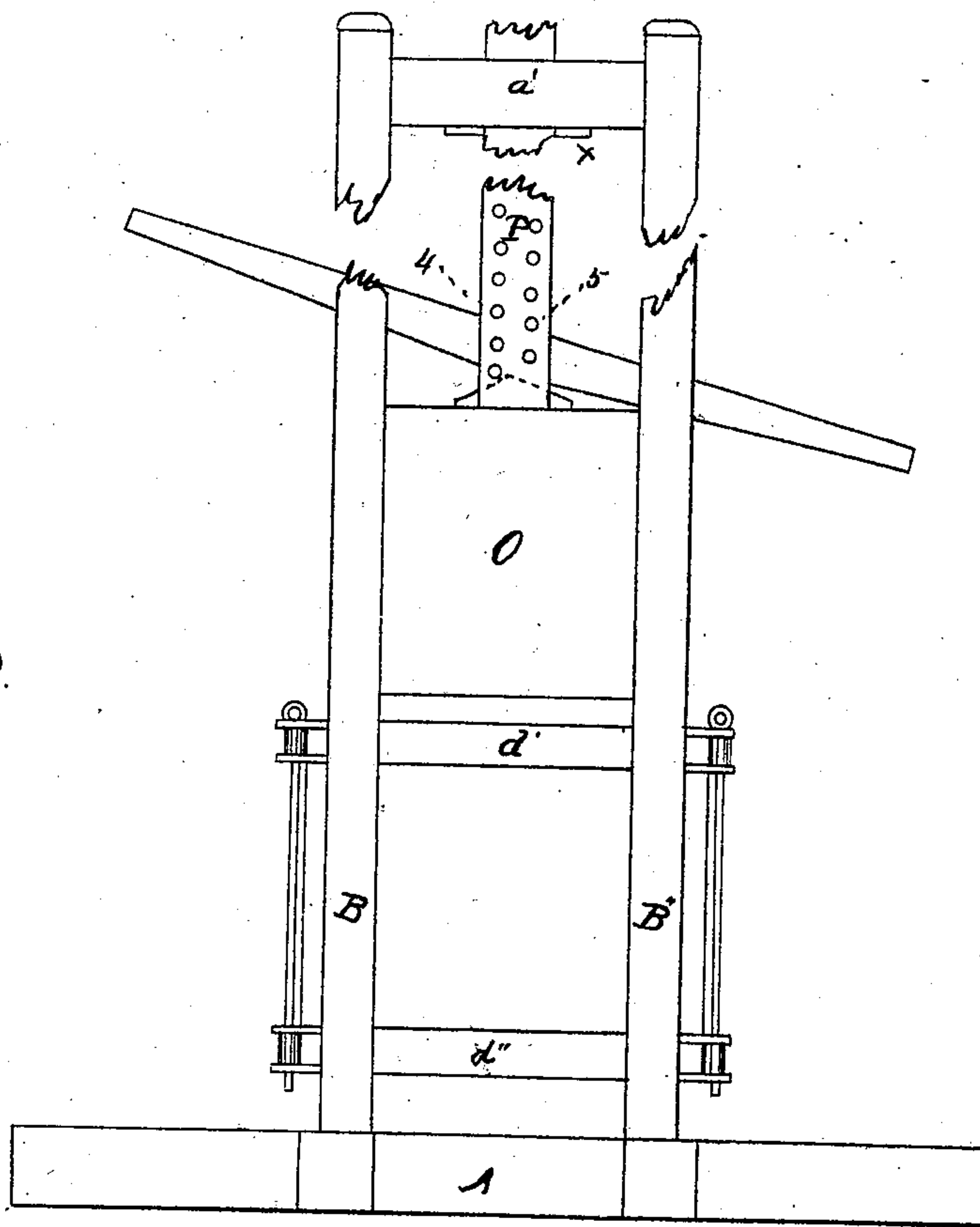
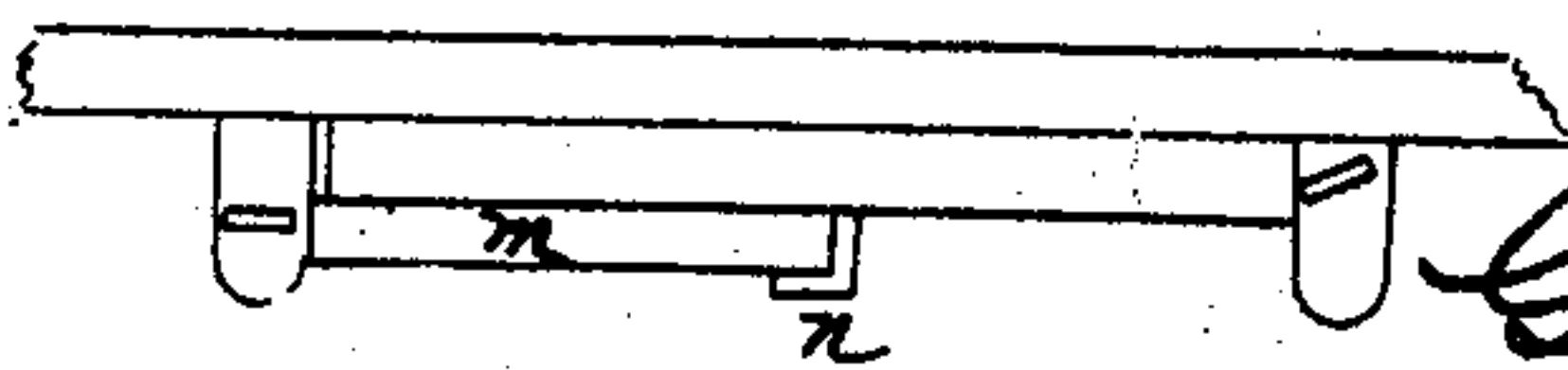


Fig. 3.



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GEORGE ERTEL, OF LIBERTY, ILLINOIS.

Letters Patent No. 72,728, dated December 31, 1867.

IMPROVED BEATER-PRESS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE ERTEL, of Liberty, county of Adams, State of Illinois, have invented a new and useful Combined Compressing and Beater-Press, of which the following is a full, clear, and exact description, reference being had to the drawings annexed, making a part of this specification, in which—

Plate 1 represents a side elevation of my invention.

Plate 2, Figure 1, represents a top view of the driving-wheel of my invention.

Figure 2 represents an end view of my invention, with the columns broken.

Figure 3 represents a top view of the gate of my invention.

Similar letters indicate like parts.

My invention is designed to rapidly and cheaply press hay and other substances, by the combination, in one machine, of the beating and compressing-processes.

It consists of a frame, A, plate 1, and fig. 2, plate 2, at one extremity of which are fixed four columns, two of which, B B', are shown in plate 1, and B B'' in plate 2, fig. 2. These columns are strengthened and held in position by cross-pieces, as c c' c'', plate 1, and d d' d'', plate 2, fig. 2. At the opposite extremity of the frame is placed a vertical driving-shaft, E, plate 1, having its upper bearing in the frame F, plate 1, composed of two cross-pieces extending from the columns before described. A brace, G, extends diagonally from the extremity of this frame to one of the cross-pieces of the columns. An arm, H, is attached to the driving-shaft, to the extremity of which the motive-power is applied. On the top of this shaft is a horizontal driving-wheel, K, plate 1, and plate 2, fig. 1. At the bottom of the columns is formed a "pit," having two gates opposite each other, one of which is shown at L, plate 1, and plate 2, fig. 3. The former is fastened in the ordinary manner, while the latter, L, is fastened by means of a frame, m, half as wide as itself, hung on the column opposite to that on which the gate swings, in such a way that when the gate is closed, this may be pressed against the same, and held firmly in close contact with it, by means of a hook in the gate, shown at n, plate 1, and plate 2, fig. 3. An iron hammer-block, O, plate 1, and plate 2, fig. 2, attached to a shaft, P, is made to work freely in the guiding columns. The lower end of this shaft is slotted, as at r, plate 1, thus rendering the hammer-block adjustable, it being kept in the position desired by means of a pin passing through the sides of the slot and the yoke across the eye of the hammer-block. The under side of the hammer-block, as well as the bottom of the "pit," is grooved for the reception of the ropes or hoops necessary in baling. The hammer-block in plate 1 is shown as trigged about half way between the extremes of its vertical motion. The shaft P passes between two rollers s s', plate 1, fixed in two cross-bars, one of which is shown at t, which serve to guide the hammer-block, and assist its movement. A rope is attached to the shaft P at w, passes over the roller s', which has a groove to receive it, through the eye v in the tongue y, working upon a pivot fixed in the frame F, and is then fastened to the driving-wheel at z. The upper edge of this wheel is bevelled, and an inclined plane, T, like the arc of a circle, passes from the extremity of its axis to its circumference. The hammer-block being raised so that the "pit" may be filled with hay, for instance, the driving-shaft is set in motion, and the rope wound round the wheel, raising the hammer-block, till, reaching the inclined plane, it is thrown off and the hammer-block falls upon the hay, the rope being so fastened and the plane so arranged that the hammer-block reaches its maximum elevation simultaneously with the rope being thrown off by the plane. The shaft, being in motion all the time, catches the rope, and the same process is repeated, the "pit" being continually supplied with hay. The slack rope, caused by the falling of the hammer-block, is taken up by the tongue, which, falling with the rope, prevents any tangling. When no more hay can be forced into the "pit" by the hammer-block, the hammer being in the position shown in plate 2, fig. 2, one end of the shaft P is made to rest upon the bottom of the eye of the hammer-block, while the shaft is kept from moving up by means of a pin, x, fig. 2, plate 2, inserted in the same as near as possible to the cross-bar d. A lever, diamond-shaped on one side, to correspond with the top of the yoke, is placed, as shown in plate 2, fig. 2, between the yoke and a pin, 4, passing through one of the many perforations in the sides of the slot. The pin of the yoke then being removed, the upper arm of the lever is forced down till another pin can be inserted in the other side, above the lever at 5, then the other arm, which is now the upper, is forced down, and another pin inserted, and this process continued till the hay is sufficiently pressed, when it may be removed through the gates.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of a compressing and beater-press, when arranged substantially as shown and described.
2. The combination of the driving-wheel K, the slotted shaft P, and the tongue y, of a combined compressing and beater-press, when constructed and arranged substantially as shown and specified.

GEORGE ERTEL.

Witnesses:

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JOSEPH S. SCHWARTZ.