

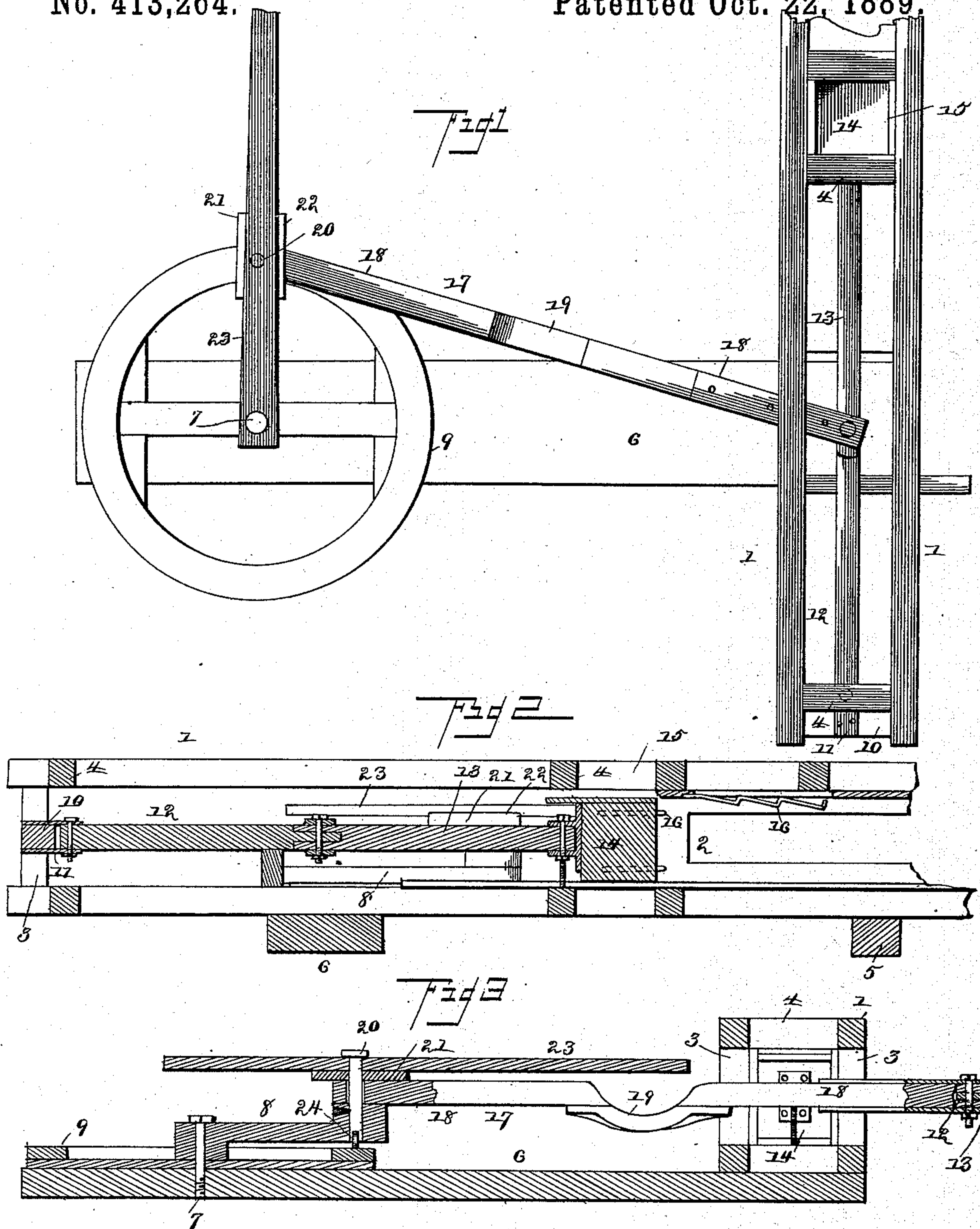
(No Model.)

G. W. ROBBURTS.

HAY PRESS.

No. 413,264.

Patented Oct. 22, 1889.



Witnesses

John Amirie  
Wm. Bagger

Inventor

George W. Robbarts

By his Attorneys,

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

GEORGE W. ROBBURTS, OF ELMO, TEXAS.

## HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 413,264, dated October 22, 1889.

Application filed July 25, 1889. Serial No. 318,619. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. ROBBURTS, a citizen of the United States, residing at Elmo, in the county of Kaufman and State of Texas, have invented a new and useful Hay-Press, of which the following is a specification.

This invention relates to baling-presses; and it has for its object to provide a device of this class which shall be simple in construction, durable and effective in operation, and which may be operated with the smallest possible expenditure of power.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a plan view of my improved press. Fig. 2 is a vertical sectional view taken longitudinally through the press-box. Fig. 3 is a vertical sectional view taken through the pitman, crank, and sweep at right angles to the sectional view shown in Fig. 2.

Like numerals of reference indicate like parts in all the figures.

11 designate the longitudinal frame-beams, between the front ends of which the baling-chamber 2 is constructed in the usual manner. The upper and lower frame-beams are connected at their front and rear ends and at intermediate points by vertical posts 3, and transverse braces 4 in like manner connect the side frame-beams. The lower frame-beams are mounted upon sills 5 and upon a laterally-extending base 6, in the outer end of which latter is mounted a vertical shaft or post 7, on which is journaled a crank 8. A circular track 9 surrounds the post 7 and serves to support the outer end of the crank 8 or an intermediate portion of said crank, as may be preferred. The vertical posts 3 at the rear end of the frame are connected by a horizontal cross piece or brace 10, to which are secured a pair of forwardly-extending plates or brackets 11, between which the rear end of a toggle link or lever 12 is pivotally mounted. The front end of the link 12 is pivotally connected with the rear end of a similar link 13, the front end of which is in turn pivotally connected with the plunger 14

of the press. Said plunger, which is of ordinary construction, is adapted to reciprocate longitudinally in the baling-chamber, which latter is provided with a feed-opening 15. The walls of said baling-chamber are furthermore provided in front of the said feed-opening with suitably-arranged springs 16 to prevent the material which is being compressed from moving in a rearward direction when the plunger is withdrawn.

17 designates the pitman, which connects the outer end of the crank 8 with the connecting-point of the links or toggles 12 and 13, the connection being made in such a manner that when the links 12 and 13 are in line with each other the crank 8 shall be parallel thereto. It follows that with each revolution of the crank 8 the plunger attached to the link 13 will make two beats or pulsations. The pitman 17 is constructed of two end pieces 18 18, connected by a bridge-piece 19, which is located below the said end pieces. This is for the purpose of enabling the horse attached to the machine to step easily and conveniently over the said pitman.

Upon the bolt 20, which connects the crank 8 with the pitman 17, is securely mounted a plate 21, the sides of which are provided with flanges 22, between which is mounted the sweep 23, which is thus kept in alignment with the crank. It is obvious that the bolt 20 is to be mounted rigidly in the outer end of the said crank, while the pitman 17 is connected pivotally with the said bolt. The extreme lower end of the bolt 20 is bifurcated to form bearings for a friction wheel or roller 24, which travels upon the track 9, thereby supporting the weight of the crank, pitman, and sweep.

In operation the horse is hitched in the usual manner to the outer end of the sweep, by means of which rotary motion is imparted to the crank for the purpose of operating the press. It will be seen that at the point where the horse is required to step over the pitman the sweep and the pitman are parallel to and in alignment with each other. Owing to this fact and to the construction of the pitman with the bridge-piece 19 the horse may step over the pitman easily and without danger of stumbling. The power is applied easily and



gradually, and is greatest at the point where it is most needed—viz., at the greatest point of compression, which is at the point where the toggle-links are on a line with each other.

5 When this point is passed, the plunger will return evenly and gradually without rebounding and without danger of permitting the contents of the baling-chamber to bulge out under the feed-opening.

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

1. In a baling-press, the combination of the frame, the baling-chamber at the front end of the same, the plunger, the toggle-links connecting said plunger with a cross-piece at the rear end of the frame, a base extending laterally from the frame, a horizontal crank mounted pivotally upon said base, the pitman connecting said crank with the connecting-point of the toggle-links, said pitman consisting of end pieces connected by a bridge-piece lying in a lower plane than the said end pieces, and an operating-sweep, substantially as set forth.

25 2. In a baling-press, the combination of the frame, the baling-chamber, the plunger, the toggle-links connecting the latter with a cross-piece at the rear end of the frame, a base ex-

tending laterally from the frame, a crank mounted horizontally upon said base, a bolt 30 mounted rigidly in the outer end of said crank, a pitman connecting said bolt pivotally with the connecting-point of the toggle-links, a flanged plate mounted rigidly upon the upper end of said bolt, and a sweep mounted upon 35 said plate, substantially as set forth.

3. In a baling-press, the combination of a reciprocating plunger, toggle-links connecting said plunger with a cross-piece at the rear end of the press-frame, a horizontal crank 40 mounted upon a laterally-extending base, a pitman connecting the outer end of said crank with the connecting-point of the toggle-links, a sweep mounted rigidly upon the upper end of the bolt, connecting said crank and pitman, 45 a wheel or roller at the lower end of said bolt, and a circular track supporting said roller, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 50 presence of two witnesses.

G. W. ROBBURTS.

Witnesses:

C. H. ALEXANDER,

W. H. CRAWFORD.