

No. 839,247.

PATENTED DEC. 25, 1906.

J. F. WINCH.
BALING PRESS.

APPLICATION FILED MAR. 30, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

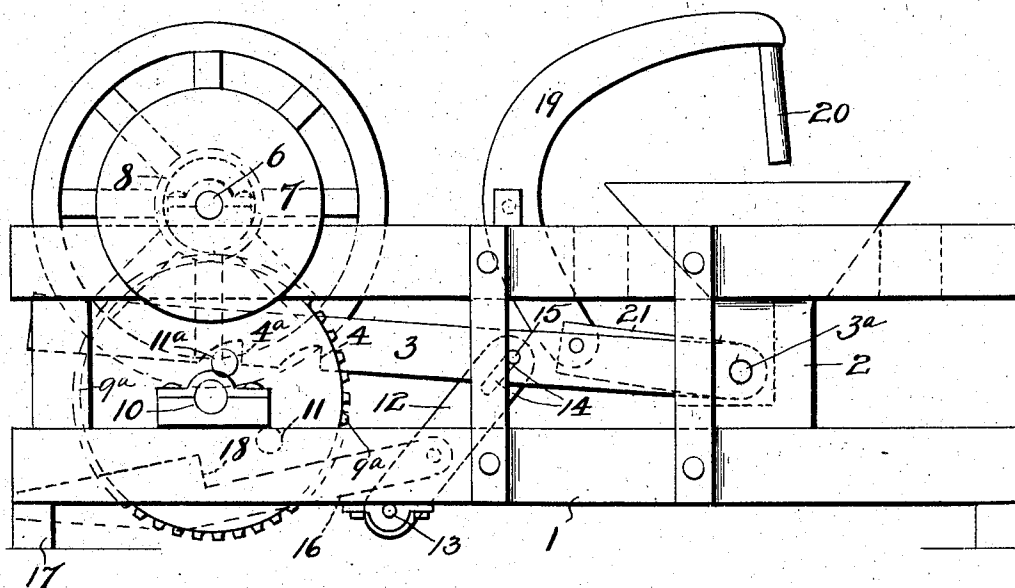
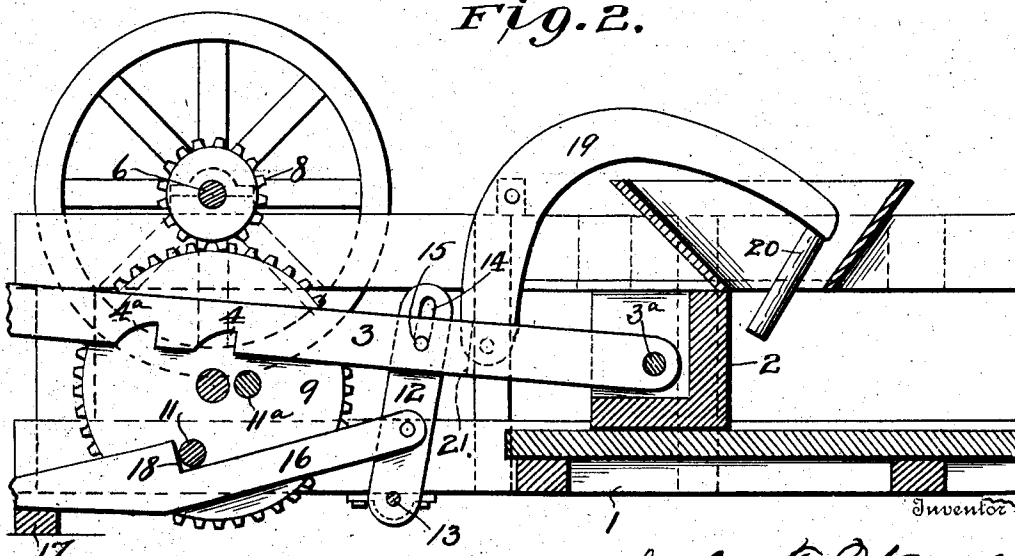


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

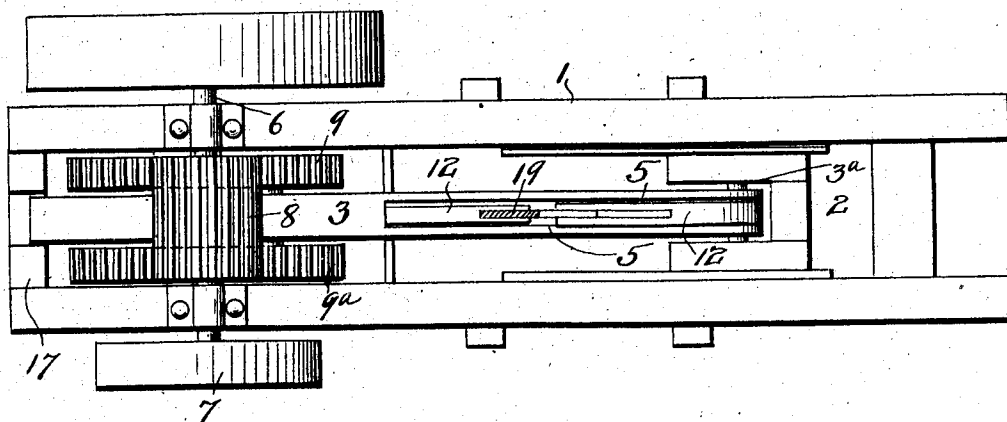
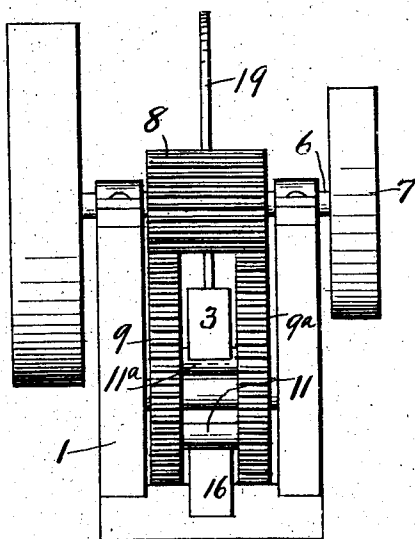


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN F. WINCH, OF MARION, OHIO.

BALING-PRESS.

No. 839,247.

Specification of Letters Patent.

Patented Dec. 25, 1906.

Application filed March 30, 1906. Serial No. 308,987.

To all whom it may concern:

Be it known that I, JOHN F. WINCH, a citizen of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Baling-Presses, of which the following is a specification.

My invention relates to baling-presses of the horizontal reciprocating plunger type, and has for its object the provision of a gear by which an increased compression is exerted proportioned to the power employed. I accomplish this result by the structure described in detail hereinafter and illustrated in the accompanying drawings, in which—

Figure 1 is a side view showing the plunger at the extremity of its compressing stroke; Fig. 2, a similar view, partly in section, showing the plunger withdrawn and the parts in position for a compressing stroke of the plunger; Fig. 3, a top plan view, and Fig. 4 an end view.

In the drawings similar reference characters indicate corresponding parts throughout the several views.

The frame 1 of my improved hay-press may be supported on any suitable base or, if desired, mounted on wheels for ready transportation, this structure, however, not being original with me. The plunger 2 is slidably mounted in frame 1 and has a beam 3, pivotally secured thereto by means of pin 3^a and provided with two notches 4 and 4^a in its lower side, the end of beam 3 secured to the plunger, being bifurcated, as shown at 5.

The driving-gear consists of a shaft 6, journaled on the top of frame 1 and driven by any suitable power, the belt-pulley 7 being shown for the purpose of illustration only. A gear-pinion 8 is keyed to shaft 6 and meshes with the gear-faces on the peripheries of the two wheels 9 and 9^a, journaled on the lower part of frame 1, as shown at 10. The two wheels 9 and 9^a are spaced apart, as shown, so as to receive the beam 3 therebetween. Pins 11 and 11^a are secured to the two wheels 9 and 9^a and engage notches 4 and 4^a in beam 3 when the wheels 9 and 9^a are rotated, it being understood that pin 11 engages notch 4 and carries the plunger part way and then the pin 11^a engaging notch 4^a completes the stroke of the plunger.

A lever 12 is fulcrumed on rod 13 beneath beam 3 and is provided with a longitudinal slot 14 in its upper end to receive a pin 15, secured through said beam 3. A beam 16 is

pivotally secured to lever 12 intermediate of rod 13 and beam 3, and its free end is slidably mounted on guide 17, the top of beam 16 being provided with a shoulder 18 to engage pin 11 and return the plunger 2 to its initial position after each compressing stroke.

It will be understood from this description of the construction of the operating means that by having the two pins 11 and 11^a to engage the notches 4 and 4^a in beam 3 a nearly uniform compressing stroke of the plunger is secured, and the plunger is carried the same distance as it would be if the end of the beam should be secured near the periphery of the drive-wheels 9 and 9^a at a less expenditure of power, because the driving force is closer to the center of the drive-wheels.

19 represents a lever fulcrumed on the top of frame 1, and 20 an arm secured to the upper end thereof, said lever being actuated by means of a link pivotally secured to pin 3^a, resting between the bifurcated end of beam 3 and secured to the lower end of lever 19. It will be understood that when the plunger 2 is in a compressing position the upper end of lever 19 and arm 20 are raised to permit feeding of material to be baled thereunder, while when the plunger is returned to be ready for another stroke the arm 20 is lowered and pushes the material down into the frame 1 and in position to be engaged by the plunger in its succeeding stroke.

Having thus described my invention, what I claim is—

1. In a baling-press, a reciprocating plunger, a beam secured to said plunger, a lever suitably fulcrumed and secured to said beam, a second beam secured to said lever, and means to actuate the first-named beam to drive the plunger in a compressing position and to actuate the second-named beam to retract the plunger, substantially as shown and described.

2. In a baling-press, a reciprocating plunger, a beam secured to said plunger and having notches therein, wheels suitably journaled and actuated, pins secured to said wheels and adapted to engage the notches in the beam to actuate said plunger to compress a bale, a lever suitably fulcrumed and secured to said beam, a second beam secured to said lever, and a shoulder on the top of the beam to be engaged by said pins, substantially as shown and described.

3. In a baling-press, a reciprocating plunger, a beam secured to said plunger and hav-

ing notches therein, wheels suitably jour-
naled and actuated, pins secured to said
wheels and adapted to successively engage
the notches in the beam to actuate the plun-
ger, a slotted lever suitably fulcrumed, the
5 beam and lever connected together through
the slot in the lever, a second beam pivotally
secured to said lever and slidably mounted,
and a shoulder on the second beam to engage
10 one of the pins on the wheels aforesaid to re-
tract the plunger, substantially as shown and
described.

4. In a baling-press, a frame, a reciprocating
plunger in said frame, a beam secured to
15 said plunger and having notches therein,
wheels suitably journaled on said frame, pins
secured to said wheels and adapted to engage
the notches in the beam to actuate said plun-
ger to compress a bale, a lever fulcrumed at
20 the base of said frame and secured to said
beam, a second beam secured to said lever, a
shoulder on the top of said beam to be en-
gaged by said pins, a lever fulcrumed on
said frame, an arm secured to one end of said
25 lever, and a link secured to the other end of
the lever and to said plunger, substantially
as shown and described.

5. In a baling-press, a frame, a reciprocating
plunger in said frame, a beam having one
end bifurcated and secured to said plunger, 30
said beam having notches therein, wheels
suitably journaled in said frame, pins secured
to said wheels and adapted to engage the
notches in the beam to actuate said plunger,
a lever fulcrumed at the base of the frame 35
and having its free end slotted and secured
through the slot between the bifurcated ends
of the beam, a second beam pivotally secured
to said lever and slidably mounted between
said wheels, a shoulder on the upper side of 40
said beam to be engaged by one of the pins
on the wheels, another lever fulcrumed on
top of said frame, an arm secured to one end
of said lever, and a link pivotally secured to
said plunger between the bifurcated ends of 45
the first-named beam, substantially as shown
and described.

In testimony whereof I hereto affix my signature
in the presence of two witnesses.

JOHN F. WINCH.

Witnesses:

J. H. EYMON,
J. J. CRAWLEY.