

(No Model.)

2 Sheets—Sheet 1.

W. L. WIGHT.

BALING PRESS.

No. 389,349.

Patented Sept. 11, 1888.

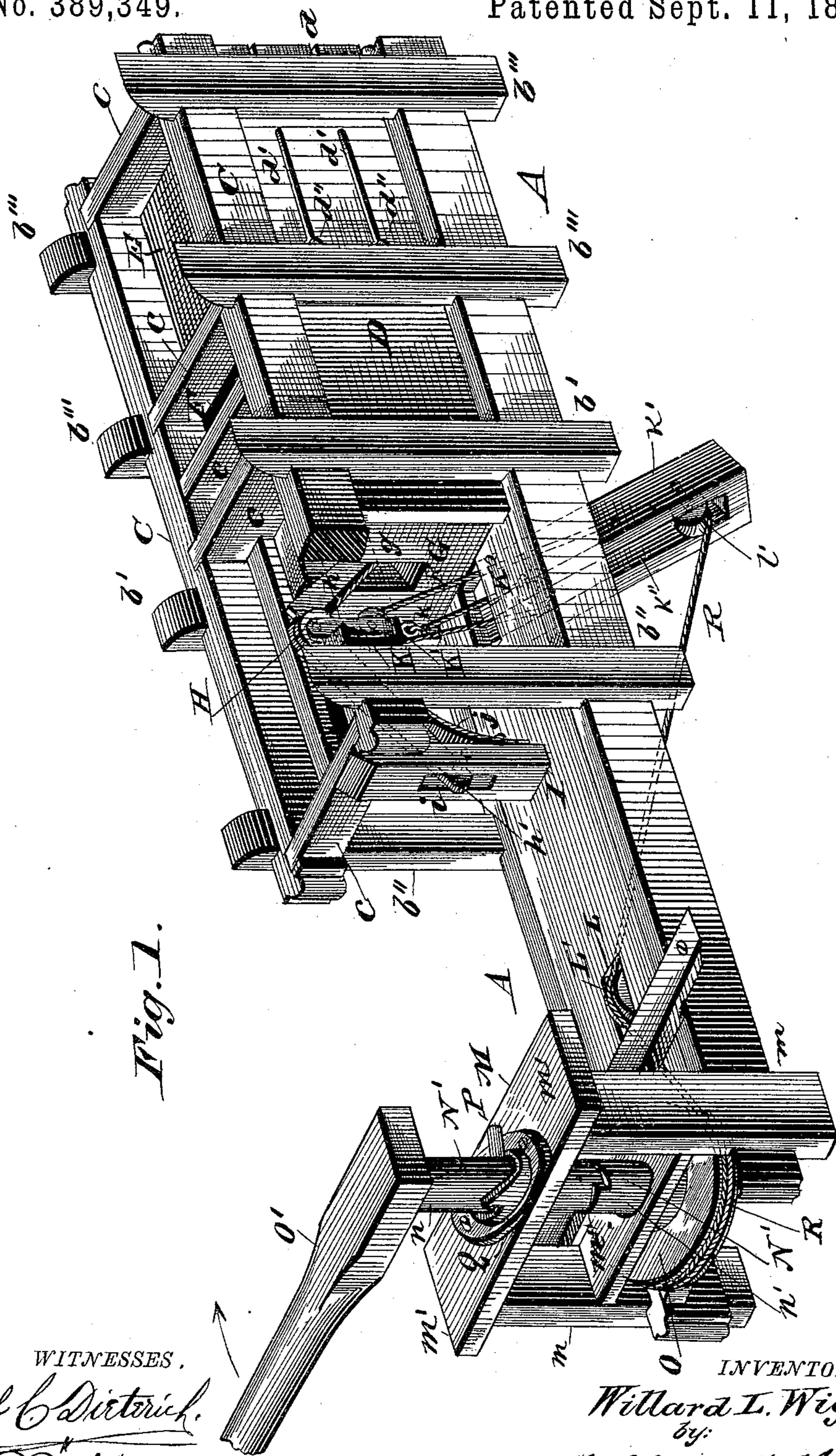


Fig. 7.

WITNESSES.

Phil C. Dietrich.

F. C. Kennedy.

INVENTOR.

Willard L. Wight.

by:

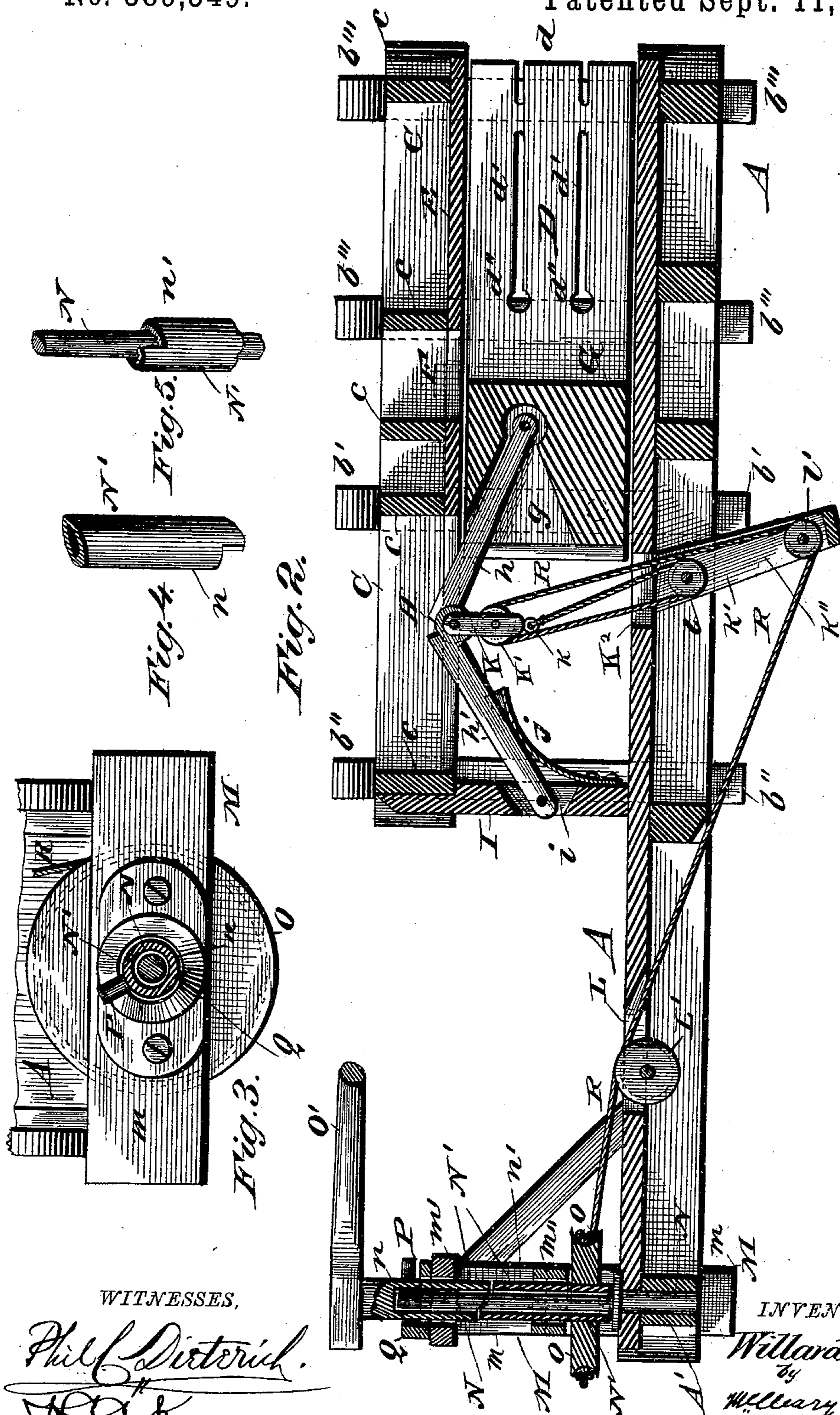
McClary & Chesney
Attorney.

Attorney

2 Sheets—Sheet 2.

BALING PRESS.

Patented Sept. 11, 1888.



WITNESSES,

Phil. Dietrich.

W. C. Kennedy.

INVENTOR.

Willard L. Wight.

W. H. H. & Chesney
Attorney.

UNITED STATES PATENT OFFICE.

WILLARD L. WIGHT, OF MILLBURY, OHIO.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 389,349, dated September 11, 1888.

Application filed February 17, 1887. Renewed June 22, 1888. Serial No. 277,938. (No model.)

To all whom it may concern:

Be it known that I, WILLARD L. WIGHT, of Millbury, in the county of Wood and State of Ohio, have invented certain new and useful

5 Improvements in Baling-Presses; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

10 My invention relates to hay-presses, the object being, primarily, to provide improved mechanism for operating the follower of the press, whereby the continuous revolution of a power-shaft will serve to reciprocate the fol-

15 lower without reversing the movement of the power-shaft.

The invention consists in the combination, with a follower and toggle-lever mechanism, of a power-shaft adapted to be automatically en-

20 gaged with the devices for operating the follower and released therefrom without reversing the direction of the revolution of the shaft.

The invention further consists in the various features of construction and combinations of

25 parts hereinafter fully described, and pointed out in the claims.

In the drawings, Figure 1 represents a perspective view of a baling-press with my improvements applied thereto. Fig. 2 is a cen-

30 tral longitudinal section of the same; and Figs. 3, 4, and 5 illustrate parts in detail.

A represents the base of the press, upon each side of which are secured opposite parallel standards b' , b'' , and b''' , whose upper ends are

35 connected by side bars, C, braced together by cross-braces c .

D D represent the sides of the baling-chamber, secured at their inner ends to the standards b' b' and unsecured at their outer ends, d ,

40 so that they will have an inward yielding movement when it is desired to contract the chamber. The top E of the baling-chamber is secured to the outer edges of the side bars, C, and unconnected with the sides D D. A feed-

45 opening, F, is formed in the top E. The base A of the press forms the bottom of the chamber.

The sides D D are formed with suitable slits d' and openings d'' , to permit the insertion of

50 binding wires or cords, and it is designed to have the chamber of sufficient size to contain

two or more bales at the same time, (one being bound while the other is being pressed.)

G represents the follower of the press. It is formed at its connected end with a triangular

55 slot, g , to receive the end of one arm, h , of a toggle-lever, H, the other arm, h' , of said lever being pivoted within a slot, i , in a standard, I, secured upon the base A centrally between the standards b'' b'' . Below the arm h' of the

60 toggle-lever is arranged a spring, j , whose lower end is secured near the base to the standard I, while its upper end bears against the under edge of said arm h' .

K represents a link, which is pivotally con-

65 nected at its upper end to the knuckle or joint of the toggle-lever, and is provided at its lower end with a pulley, K' , and a hook, k . A slot, K^2 , is formed in the base A, and a depending brace, k' , which is recessed, as shown at k'' , is secured

70 below the base A and directly under the slot K^2 . The pulleys l l' are journaled near the top and bottom of the brace in the recess k^2 . The slot L is formed in the base A near the frame M, and the pulley L' is journaled in said slot.

75

M represents a frame, which is arranged adjacent to the base A, and comprises the vertical beams m , connected at their upper and about midway their upper and lower ends by

80 transverse beams m' m'' .

N represents a stationary shaft, which has bearings in a base, A' , and which extends through openings in the transverse beams m' m'' . Upon the stationary shaft N is loosely

85 mounted a sectional sleeve, which incloses said shaft. The sleeve N' consists of two parts or sections, n n' , having clutch-engaging faces at their inner or meeting ends. Upon the lower part or section of sleeve N' is rigidly mounted a power-wheel, O, having a grooved periphery,

90 and rigidly secured to the upper sleeve is an operating handle or lever, O' .

Upon the upper section of the part n of the sleeve N' , just above the upper transverse beam, m' , is provided an outwardly-extending

95 arm, P, and upon the beam m' is secured a cam, Q, which it is adapted to engage.

R represents a rope or chain, which is secured at one end to the hook k , said rope or chain passing around the pulley l , and then

100 up and over the pulley K' , secured at the lower end of the link K, then down and through

the recessed portion of the brace k' and under the pulley l' , and thence under the base A and over the pulley L', the other end of the rope or chain being secured in the groove on the 5 periphery of the power-wheel.

The operation of the machine as thus constructed is as follows: The hay is fed to the baling-chamber through the feed-opening, and the lever O' is then turned, (by any preferred 10 power,) causing the clutch-face of the upper sleeve-section, n , to engage the clutch-face of the lower section, n' , and to rotate the latter and its power-wheel O. The revolution of the wheel O will cause the cord R to wind thereon, 15 and the tension upon said cord operates the toggle-lever, and thus forces the follower with great pressure into the baling-chamber. As soon as the upper section, n , of the sleeve N is sufficiently turned to cause its arm P to come 20 in contact with the cam-surface Q, said section n is raised out of contact with the lower section, and the force of the spring j will raise the toggle-lever, thus withdrawing the follower and unwinding the cord from the power-wheel. 25 As soon as the arm P of the upper sleeve section, n , passes over the cam-surface Q, said sleeve is thrown again into engagement with the lower sleeve-section, and the operation is continued indefinitely.

30 It will be seen that the upper section, n , of the sleeve serves as the power-shaft of the press, and I shall so term it in the claims.

Having fully described my invention, what I claim as new, and desire to secure by Letters 35 Patent, is—

1. The combination, with the follower of a press, of toggle-lever mechanism, a power-wheel provided with a clutch-sleeve, and cord-and-pulley mechanism connecting the wheel

with the toggle mechanism, a hollow operating-shaft, and a cam raising the shaft out of connection with the sleeve of the power-wheel, and a spring device for retracting the toggle mechanism, substantially as described. 40

2. The combination, with the follower of a 45 press, of toggle-lever mechanism provided with a retracting-spring, a link depending from the toggle-joint and connected by a cord and pulleys with a brace arranged below the toggle-lever, a power-wheel provided with a 50 clutch-sleeve and mounted upon a stationary shaft, and a clutch-shaft for operating the wheel, substantially as described.

3. The combination, with a supporting-frame and shaft, of a power-wheel loosely 55 mounted on said shaft and provided with a clutch-sleeve, a cam surface secured upon said frame, and a clutch-shaft provided with a projecting arm to contact with said cam-surface, and an operating handle or lever, substantially 60 as described.

4. The combination, with the follower of a baling-press, of a toggle-lever provided with a retracting-spring, a power-wheel loosely 65 mounted on a stationary shaft and provided with a clutch-sleeve, a clutch-shaft to engage said sleeve and provided with a projecting arm to engage a cam-surface and with a power-handle or lever, and cord-and-pulley mechanism for connecting said power-wheel and toggle 70 lever, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

W. L. WIGHT.

Witnesses:

ELLA HAMILTON,
THOS. H. TRACY.