

July 3, 1928.

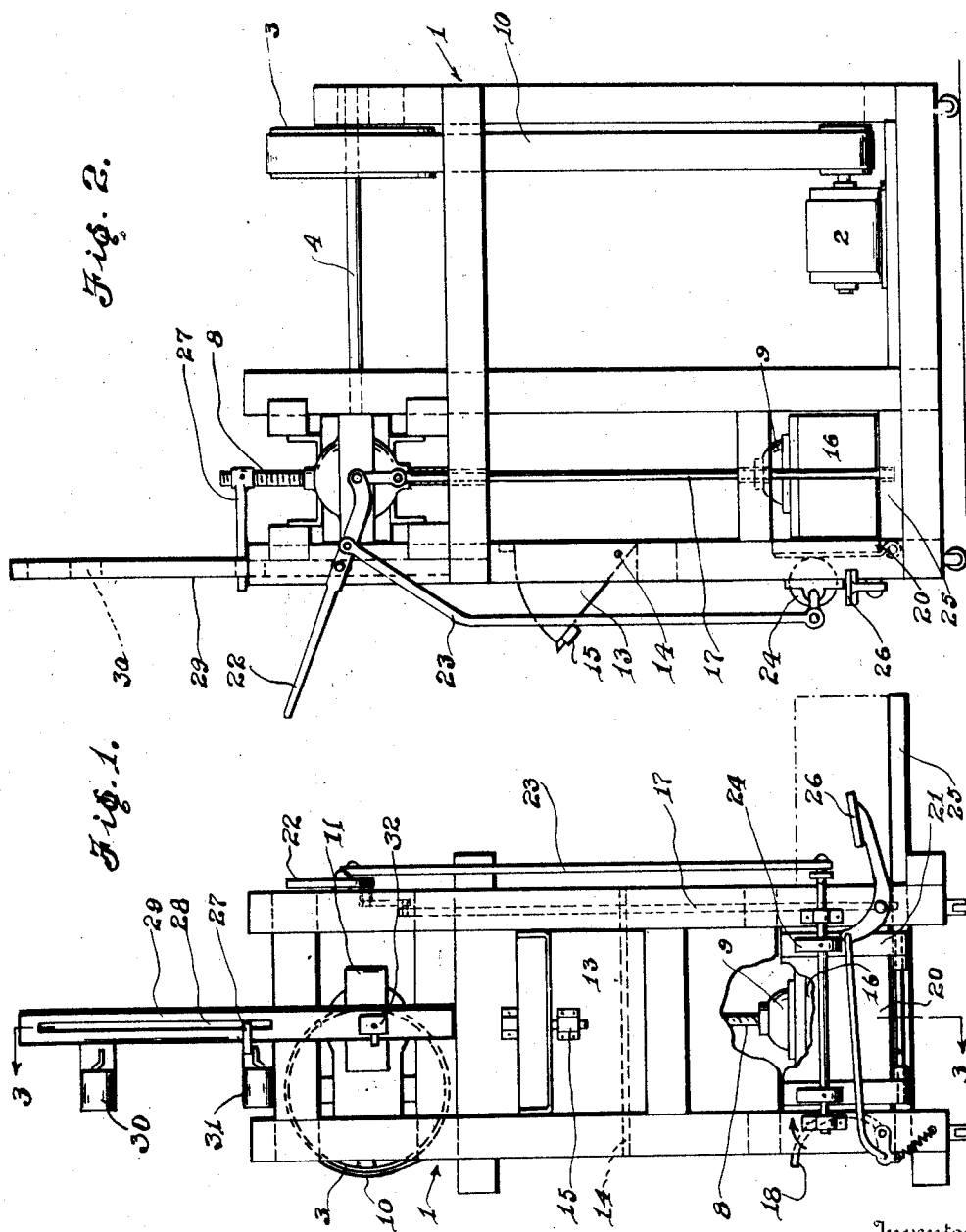
J. L. SNYDER

1,675,669

PRESS

Filed Oct. 10, 1927

2 Sheets-Sheet 1



Inventor

J. L. Snyder

By

J. Kaplan

Attorney

July 3, 1928.

1,675,669

J. L. SNYDER

PRESS

Filed Oct. 10, 1927

2 Sheets-Sheet 2

Fig. 5.

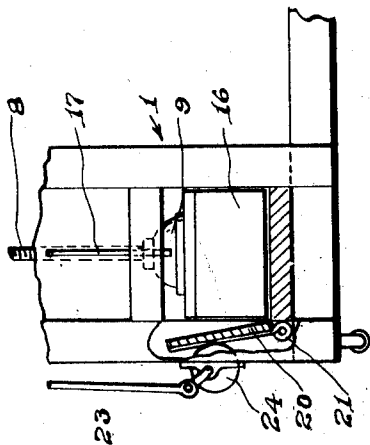


Fig. 6.

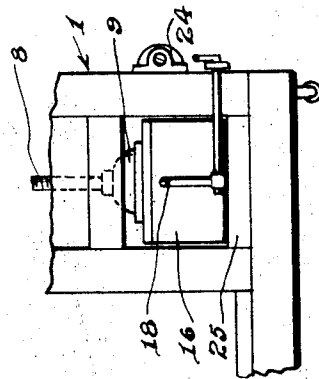


Fig. 3.

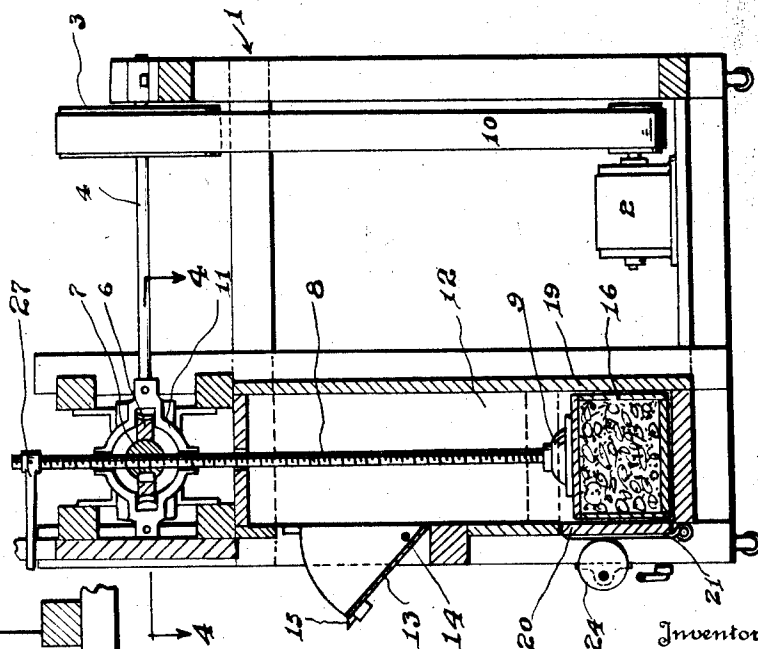
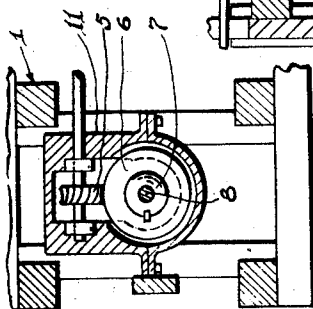


Fig. 4.

Inventor
J. L. Snyder

J. Kaplan
Attorney

34

UNITED STATES PATENT OFFICE.

JOHN L. SNYDER, OF GRANDVIEW, WASHINGTON.

PRESS.

Application filed October 10, 1927. Serial No. 225,248.

This invention relates to presses, and it has for its object to provide an improved device of this character which is capable of compressing material into bales or bundles or into an enclosed space or box.

Another object of the invention is to provide a press of this character having automatic means to stop the pressure foot when it is at its highest and lowest position.

Another object of the invention is to provide means for releasing the side pressure on the box containing the material to be pressed so the said box can easily be removed from the pressure compartment.

Still another object of the invention is to provide means for moving the compressed box of material out of the pressing chamber by the aid of a foot lever.

Other objects will appear as the disclosure progresses. The drawings are intended merely to indicate a possible embodiment of the invention. It is obvious that the actual needs of manufacture may necessitate certain mechanical changes. It is therefore not intended to limit the invention to the embodiment illustrated but rather to define such limits in the appended claims.

For a more general understanding of the invention attention is now called to the drawings in which

Fig. 1 is a front view of the press.

Fig. 2 is a side view thereof.

Fig. 3 is a cross section on line 3—3 of Fig. 1.

Fig. 4 is a section on line 4—4 of Fig. 3.

Fig. 5 is a side view partly in section of the lower part of the press.

Figure 6 is another side view of the lower portion of the press.

Referring to the drawings in detail in which like reference characters denote like parts throughout the specification, numeral 1 designates the frame of the press, 2 the driving motor and 3 the main pulley mounted on the shaft 4.

As noted in Fig. 4, keyed to the end of the shaft 4 is a worm 5 meshing with a worm wheel 6. Fastened within the said worm wheel is a ball 7 having an internal thread through which passes the threaded rod 8. Mounted at the bottom of the screw is the pressure foot 9 for applying the pressure to the material being compressed.

It will thus be seen that when the motor is started the power will be transmitted to the driving belt 10, the pulley 3, the shaft 4 and

thence to the worm 5 and the worm wheel 6 and raise or lower the threaded rod 8 according to the direction of rotation of the worm wheel which is of course governed by the direction of rotation of the motor.

Numeral 11 represents the housing for the transmission, 12 the pressure compartment and 13 a feed chute for admitting the material to be compressed. This chute is hinged on a rod 14 and adapted to be latched in a closed position by a latch 15. When pressing the material the chute will be latched in a closed position and when the pressure is released the chute will be manually opened as noted in Fig. 3 ready for a new charge.

In the illustrations the material is shown compressed in a box 16. The box is held in place in the compression chamber at one end by the rod 17, at the opposite by the curved arm 18, at one side by the wall member 19 and at the opposite side by the door 20 mounted on hinges 21. For releasing the box from its compartment the pivoted lever arm 22 is moved downward. This will cause the rod 17, to move up and at the same time raise the link 23, revolve the cams 24 and thereby allow the door 20 to swing outwardly as shown in Fig. 5. The box is then manually moved out of the compression chamber onto the platform 25 by pressing the foot pedal 26 downward and cause the curved arm 18 to partly revolve in a downward direction and shove the box 16 on the platform 25.

At the top of the threaded rod 8 is attached an arm 27. The end of this arm is adapted to move in a slot 28 of the upright 29 and actuate two circuit breakers 30 and 31. When the threaded rod and arm reaches its highest position the upper circuit breaker 30 will be actuated and the current to the motor turned off and vice versa when the arm reaches its lowest position the lower circuit breaker 31 will be actuated and stop the motor.

In order to have the threaded rod 8 and arm 28 move up and down or change the direction of travel of the motor a reverse switch 32 is provided. It will thus be seen that when the pressure foot 9 is raised to admit a charge of material to be compressed the upper circuit breaker will shut off the current when the pressure foot is at its highest position, and when the material is sufficiently compressed the lower circuit breaker

will shut off the current and stop the movement of the pressure foot.

When the pressure foot is at its highest position the motor can be reversed by the aid of the reverse switch and thereby cause the pressure foot to travel downward. Also when the pressure foot is at its lowest position the pressure foot can be made to travel upward by manipulating the said switch so the motor will travel in the opposite direction.

Having described my invention, I claim:

1. In a press of the class described in combination; a pressure chamber, means for compressing material in said chamber, means for releasing the pressure of the said material, and means for moving the pressed material out of the pressure chamber on a platform; the said means consisting of a pivoted foot pedal, a rod attached to said pedal, the opposite end of said rod being attached to a lever, a curved arm adapted to shove the

compressed material on said platform when the said pedal is moved down, and a spring for normally keeping said foot pedal in a raised position.

2. In a press of the class described in combination, a pressure chamber, means for compressing material in said chamber, means for releasing the pressure of the said material, and means for allowing the compressed material to be moved out of the pressure chamber, the said means consisting of a hand operated lever, a rod attached to the end of said lever, a link attached to said lever near its pivoting point, said link adapted to actuate a pair of cams, a hinged door in said pressure chamber, the said lever when pressed down adapted to raise said rod and actuate said link for partly revolving said cams so said door can swing open.

In testimony whereof I affix my signature.

JOHN L. SNYDER.