S. H. DYER.

DROP PRESS.

APPLICATION FILED SEPT. 23, 1912.

1,082,685. Patented Dec. 30, 1913.

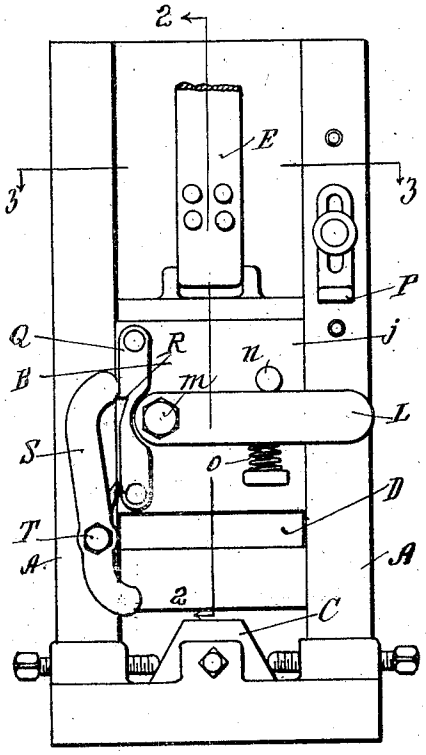


FIG. 1.

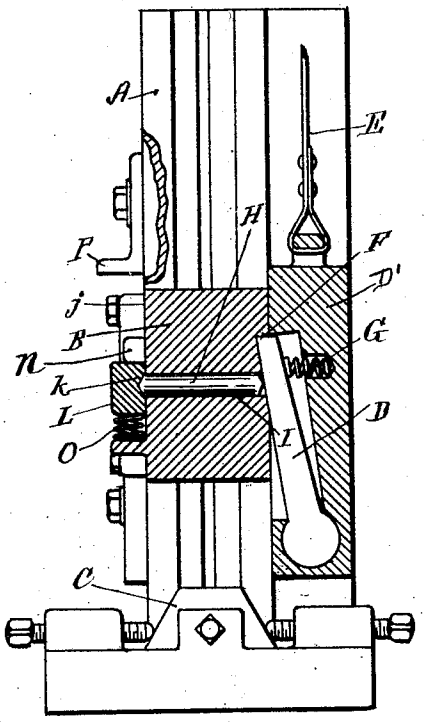


FIG. 2.

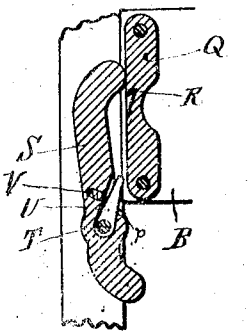


FIG. 4.

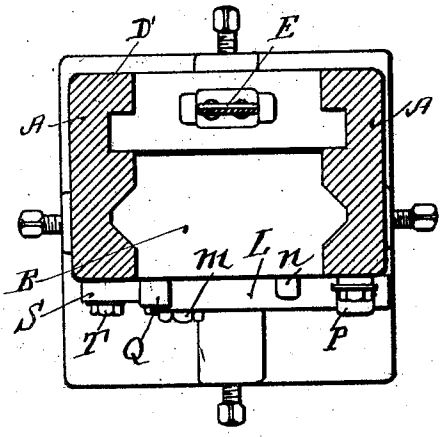


FIG. 3.

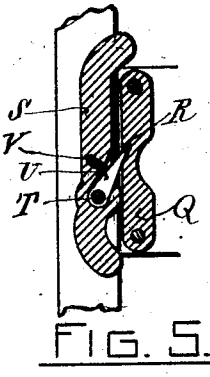


FIG. 5.

WITNESSES.

Chas. W. Eddy.

W. J. Marsh

INVENTOR.

Silas H. Dyer.

per S. Scholfield.

ATTORNEY.

UNITED STATES PATENT OFFICE.

SILAS H. DYER, OF NORTH ATTLEBORO, MASSACHUSETTS, ASSIGNOR TO G. LANZA DAVISON, OF WINTHROP, MASSACHUSETTS.

DROP-PRESS.

1,082,685. Specification of Letters Patent. Patented Dec. 30, 1913.

Application filed September 23, 1912. Serial No. 721,817.

To all whom it may concern:

Be it known that I, SILAS H. DYER, a citizen of the United States, residing at North Attleboro, in the State of Massachusetts, have invented a new and useful Improvement in Drop-Presses, of which the following is a specification.

The nature of my invention consists in improved means for effecting the drop movement of the hammer independently of the lifting mechanism, and for taking up the rebound of the hammer, as hereinafter set forth.

In the accompanying drawing: Figure 1 represents the front view of the lower portion of a drop press. Fig. 2 represents a vertical section of a portion of the same taken in the line 2, 2, of Fig. 1. Fig. 3, represents a horizontal section taken in the line 3, 3, of Fig. 1. Figs. 4 and 5 are detail sections of the take-up device.

In the drawings, A represents the slides of the press, B the hammer, C the die upon which the hammer strikes, and D the lifting catch by means of which the hammer is raised to its desired elevation, the said lifting catch being pivotally held in the carrier D′ which is operated by means of the strap E, and the catch is actuated into engagement with the notch F at the back of the hammer B, by means of the spring G. The mechanism for causing the disengagement of the catch from the said notch F, consists in the sliding pin H, which is loosely held in the hole I made through the hammer, and which projects outwardly at the side *j* of the said hammer, and enters a recess *k* made in the face of the cam-bar L which is pivoted at *m*, to the face of the hammer, and held against the stop *n* by means of the spring *o*. Upon the upward movement of the hammer, the cam-bar L comes in contact with the adjustable stop P, and then its further movement with the hammer ceases, whereupon the resulting backward movement of the sliding pin H, out of the recess *k*, will cause the disengagement of the catch D out of the notch F to release the hammer, and cause it to drop; the position from which it is released to drop, being governed by the position of the adjustable stop P, upon the slide of the press.

When the hammer falls from an elevated position, it is liable to rebound and in order to catch the hammer as it rebounds and hold it away from the work, I provide a plate Q having a notch R, which plate is attached to the face of the hammer, as shown in Figs. 4 and 5, and upon the side of the slide A of the press, is pivoted the cam-lever S at the point T, the said cam lever S, being provided with a recess, in which is placed the pawl U, which is actuated in the forward direction by means of the spring V, and limited in its forward movement by means of the shoulder *p* of the said cam-lever, which cam-lever is retained in its set position at the face of the slide A, by means of friction. Now when the hammer B is raised from its lower position, the end of the cam-bar L comes in contact with the adjustable stop P, and causes the release of the hammer, whereupon, it will be caused to drop to the die C, and in its descent the hammer will strike the inwardly projecting lower end of the cam-lever S, and cause it to move backward to the position shown in Fig. 5, and upon the upward rebound of the hammer it will be caught and held in its elevated position above the die, by means of the pawl U, and thereafter, upon the upward movement of the hammer, the lower end of the cam-lever S will be again brought forward as shown in Fig. 4, by the engagement of the upper corner of the hammer, with the inwardly projecting upper end of the cam-lever.

I claim as my invention:

1. In a drop press, the combination of the hammer, the lifting catch for the hammer, the carrier to which the catch is pivoted, means for operating the carrier, the sliding pin passing through the hammer, the pivoted cam-lever for operating the pin and the stop for the cam-lever.

2. In a drop press, the combination of a hammer provided with a notched plate, the cam-lever and pawl pivoted to the slide of the press to engage with the said notched plate and means for raising and releasing the hammer.

SILAS H. DYER.

Witnesses:

SOCRATES SCHOLFIELD,

BENJAMIN L. DENNIS.