(No Model.)

2 Sheets—Sheet 1.

J. H. CLAPP.

STAMPING PRESS.

No. 324,812. Patented Aug. 25, 1885.

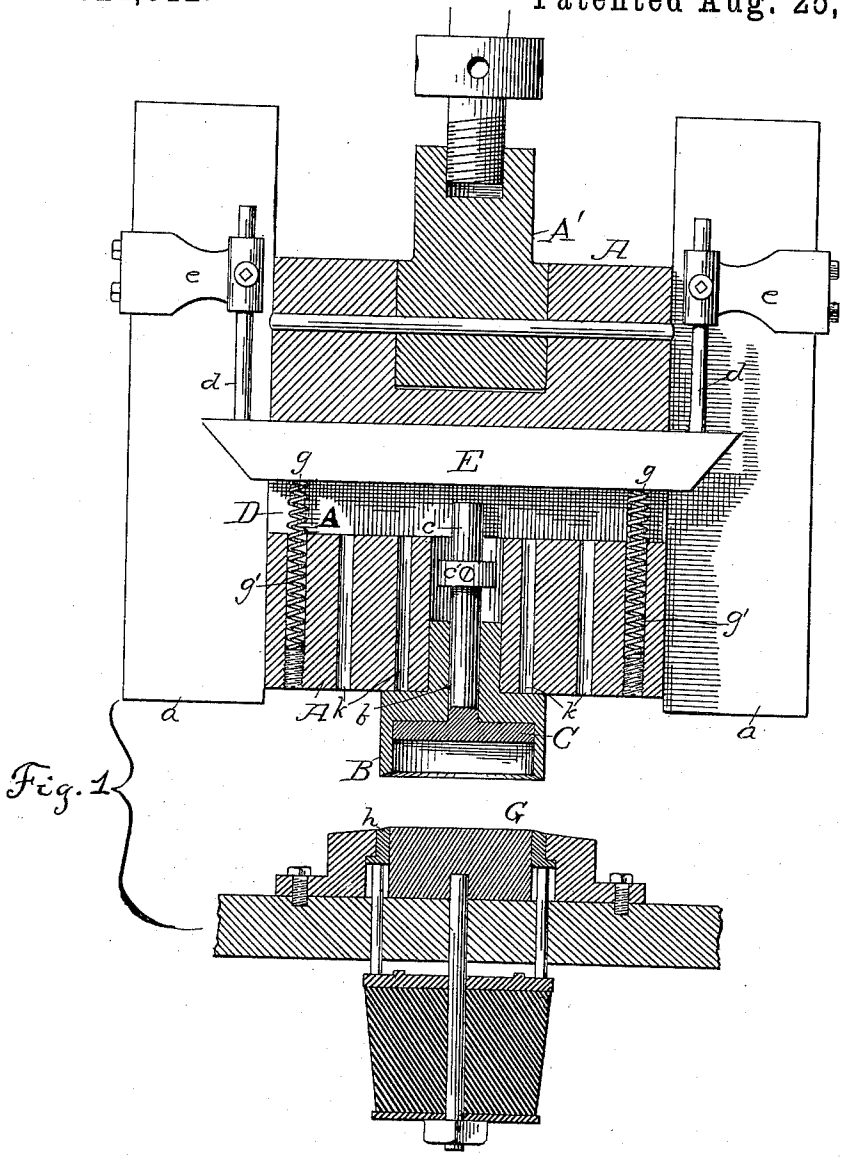


Fig. 1.

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(No Model.)

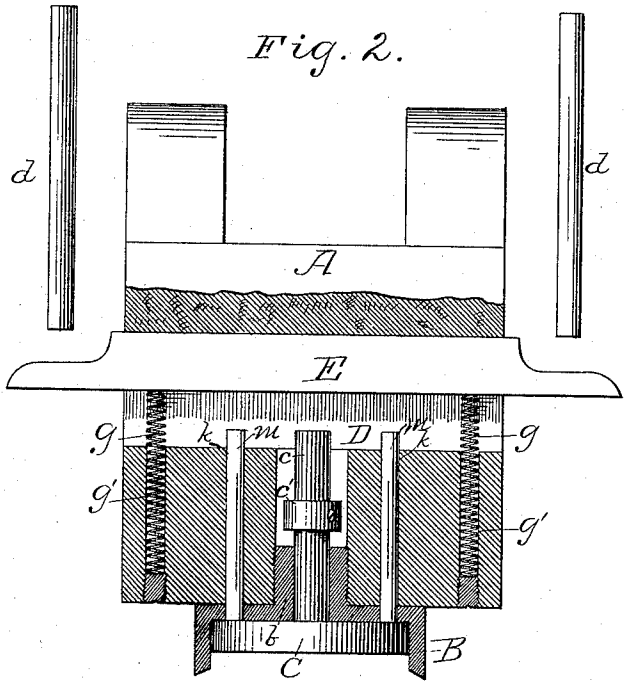
2 Sheets—Sheet 2.

J. H. CLAPP.

STAMPING PRESS.

No. 324,812. Patented Aug. 25, 1885.

Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES H. CLAPP, OF CHICAGO, ILL., ASSIGNOR TO JAMES LOUIS BOARD.

STAMPING-PRESS.

SPECIFICATION forming part of Letters Patent No. 324,812, dated August 25, 1885.

Application filed March 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. CLAPP, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stamping-Presses; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Heretofore in sheet-metal-stamping presses considerable difficulty has often been experienced in releasing or discharging from the stamping or male die the formed metal—say the lid of a pail or box—soon enough to permit the next operation of the dies to be made without danger of injury.

It is the object of my improvements to obviate this difficulty, and this I accomplish by means of mechanism which is contingent on the motion of the stamping-head, and which is therefore positive in its action.

In the drawings, Figure 1 represents a transverse vertical section of my invention, and Fig. 2 the same with an additional feature.

Reference being had to the drawings, A represents the stamping-head, reciprocating in the guides *a a* and driven through the medium of an adjustable pitman, A′, which is pivoted in its upper end, as shown, by the drive-shaft. In its lower end is inserted the die-head B, having a tang or shank, *b*, which enters and is secured in a suitable manner therein. In the engaging face of this die-head is a circular depression concentric to the cylindrical exterior thereof, in which is placed and operates the male die C. This die C has a spindle, *c*, extending vertically therefrom, which passes longitudinally and centrally through a suitable bore in the shank *b* up into a transverse slot, D, in the stamping-head A.

Placed longitudinally in the transverse slot D is the cross-bar E, the ends of which project out on either side of said head A beyond the confines of said slot, so that in the return movement of said head it will be anticipated and held stationary by the stop-pins *d d*, adjustably secured in the brackets *e e*, secured, as shown, to guides *a a*.

When the bar E is held stationary by the pins *d d*, during the return movement of the stamping-head, it will anticipate and bear on the contiguous end of the stem *c* of the die C, which latter it will force outward to the face of the die-head, where the said die will stop, first, by reason of the bar bearing against the side limit of the transverse slot D; second, by reason of the collar *c′*, adjustably secured on said stem, as shown, bearing against the contiguous end of the shank or tang *b*, and, third, by reason of the head A reaching the limit of its return movement.

In order to return the bar E to its original position as the stamping-head advances, the coil expansion-springs *g g* rest in suitable pockets, *g′ g′*, in such manner that one end will press against the said bar and force it back to its original position.

The operation of the stamping-machine is the same as usual. Thus the sheet metal is placed between the male die C and female die G, and as the stamping-head advances the edges of the die-head, which are inversely beveled, as shown, cut a metal blank, and as it continues to advance it forces the cushioned ring *h* downward, thus forming the said blank into the required shape, and when the two dies C and G meet gives the face of the formed blank the desired impression. As the head A is withdrawn, the metal design or object formed by the dies will remain in the circular depression of the die-head B until the bar E is anticipated and held stationary by the pins *d d*, when the stem of the die C, striking the bar, will be held stationary, while the head A and die-head B continue to recede to the limit of their stroke, thus forcing out the formed and stamped metal.

Sometimes it is necessary to use larger dies, the diameter of which will almost equal the transverse dimensions of the contiguous end of the stamping-head A. In this event I place pins *m*, of suitable length, in the longitudinal perforations *k* in the said head, between the transverse slot D and the end contiguous to the dies, which pass through the opposing

stock of the die-head and bear against the inner surface of the die C, so as to equalize the pressure thereon, and which are operated upon in the same manner by the bar E as the stem *c* of the die C.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the head of a stamping-press, having a transverse slot therein, the adjustable stops *d d*, the transverse bar E, and die-head B, of the die C, having a stem or shank, *c*.

2. The combination, with the head A, having a transverse slot therein, die-head B, secured in said head, and die C within die head B, having a shank or stem, *c*, of the bar E, stops *d*, and springs *g g*.

3. The combination of the head A, having a transverse slot, D, and having perforations *k* therein, as shown, in which operate suitable pins, *m*, with the die-head B, die C, and the bar E and stops *d d*, as shown.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

JAMES H. CLAPP.

Witnesses:
E. W. SCHIRACH,
FRANK D. THOMASON.