

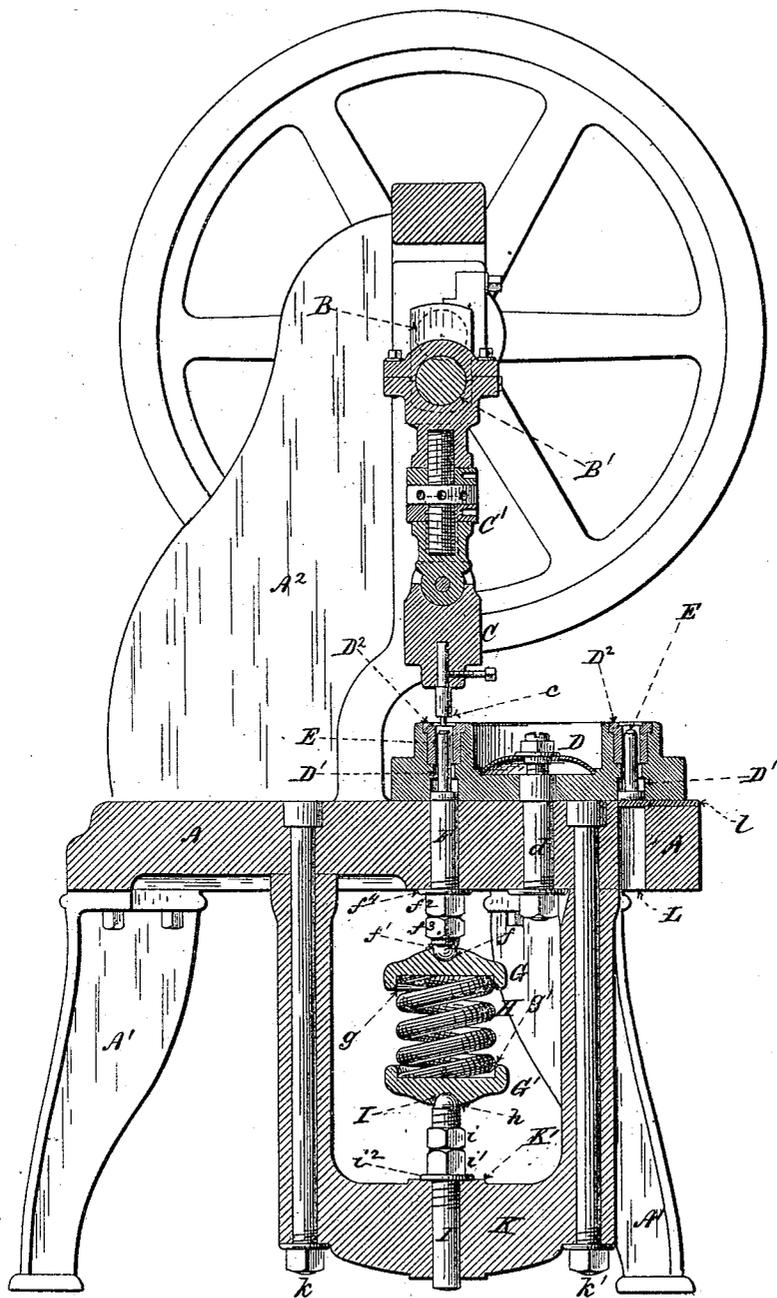
(No Model.)

A. C. HOBBS.

MACHINE FOR HEADING CARTRIDGE SHELLS.

No. 273,734.

Patented Mar. 13, 1883.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALFRED C. HOBBS, OF BRIDGEPORT, CONNECTICUT.

MACHINE FOR HEADING CARTRIDGE-SHELLS.

SPECIFICATION forming part of Letters Patent No. 273,734, dated March 13, 1883.

Application filed December 22, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALFRED C. HOBBS, of Bridgeport, Connecticut, have invented a certain Improvement in Machines for Heading or Re-Enforcing Cartridge-Shells, of which the following is a specification.

My improvement concerns means for affording and adjusting the spring-bearing which supports the yielding mandrel of a cartridge-press during the operation of heading or re-enforcing cartridge-shells.

The accompanying drawing of a vertical cartridge header or press is a central vertical section, showing so much of the machine as is necessary to illustrate the application to it of my improvement.

The machine has a substantial bed, A, supported on suitable legs, A', and provided on the top with the usual standards, one of which, A², is shown in the drawing, for supporting the boxes in which the crank-shaft B has its bearings, and also for supporting the ways or guides for the carriage C, in the lower end of which the punch *c* is secured. The adjustable pitman or link C' connects the carriage C with the crank-pin B' in the usual manner. The usual dial, D, is mounted upon the vertical shaft *d*, which is inserted in the bed A. The dial is provided with the usual perforations, D', in the upper ends of which the female dies D² are deposited. Each die is provided with the interior mandrel, E, which is centralized relatively to the die by the bearing of the periphery of its enlarged base against the wall of the lower part of the perforations D' in the dial. These mandrels, as is customary, fit with sufficient looseness to admit of their being moved longitudinally. The dial is so arranged relatively to the punch that when brought to rest one of the dies D² is brought into alignment immediately under the punch. Prior to arriving at that point the base of the mandrel has been supported on the top of the bed A. When brought into alignment with the punch the base of the mandrel rests upon the upper end of the longitudinally-yielding post, F, the lower end, *f*, of which is seated in the hemispherical cavity *f'*, formed in the center of the top of the disk G, the lower side of which, *g*, is recessed and bears upon the upper end of the spiral spring, H. The lower end of the spring H bears upon the recessed upper side, *g'*, of the similar disk, G', provided upon its under side with the hemispherical cavity *h*,

for the reception of the upper end of the vertical adjusting-bolt I, which is inserted through the yoke K. The yoke K is secured to the under side of the bed A by means of the vertical bolts and nuts, *k k'*. The bolt I is made vertically-adjustable by means of the jam-nuts *i* and *i'*, the lower one of which bears upon the washer *i²*, which rests upon the surface K' of the yoke. The post F is likewise provided with jam-nuts *f²* and *f³*, the upper one of which abuts against the washer *f⁴*, which bears upon the under side of the bed A. The object of the jam-nuts *f²* and *f³* is to limit the range of upward movement of the post F; and the object in vertically adjusting the bolt I is to vary the tension of the expanding spiral spring H, which, as will be seen, is confined between the two disks G and G', the opposed recessed faces of which respectively receive and centralize the opposite ends of the spiral spring. By this organization of the parts, however, the tension of the supporting-spring may be varied. The direction in which the force of the supporting-spring is exerted is maintained in vertical alignment with the axes of the mandrel, punch, and post F.

For convenience of inserting the mandrels into the lower ends of the perforations D' of the dial, a vertical hole, L, is formed through the front part of the table, the upper end of which terminates in the curved path pursued by the bases of the mandrels when the dial is rotated. The upper end of the hole L is provided with the sliding cover *l*, which can be removed to allow the mandrels to drop from the dial through the hole L, and to permit the insertion of mandrels into the holes D' in the dial.

I claim as my invention in a cartridge-press substantially such as described—

1. The spiral spring H, arranged with its axis in alignment with the longitudinal axes of the post F, and the adjusting-bolt I, in combination with a mandrel, E, interposed between the post F and the punch *c*.

2. The yoke K, applied to the bed-plate A, in combination with the adjusting-bolt I, the yielding post F, the recessed disks G and G', and the spiral spring H, substantially as shown and described.

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Witnesses:

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