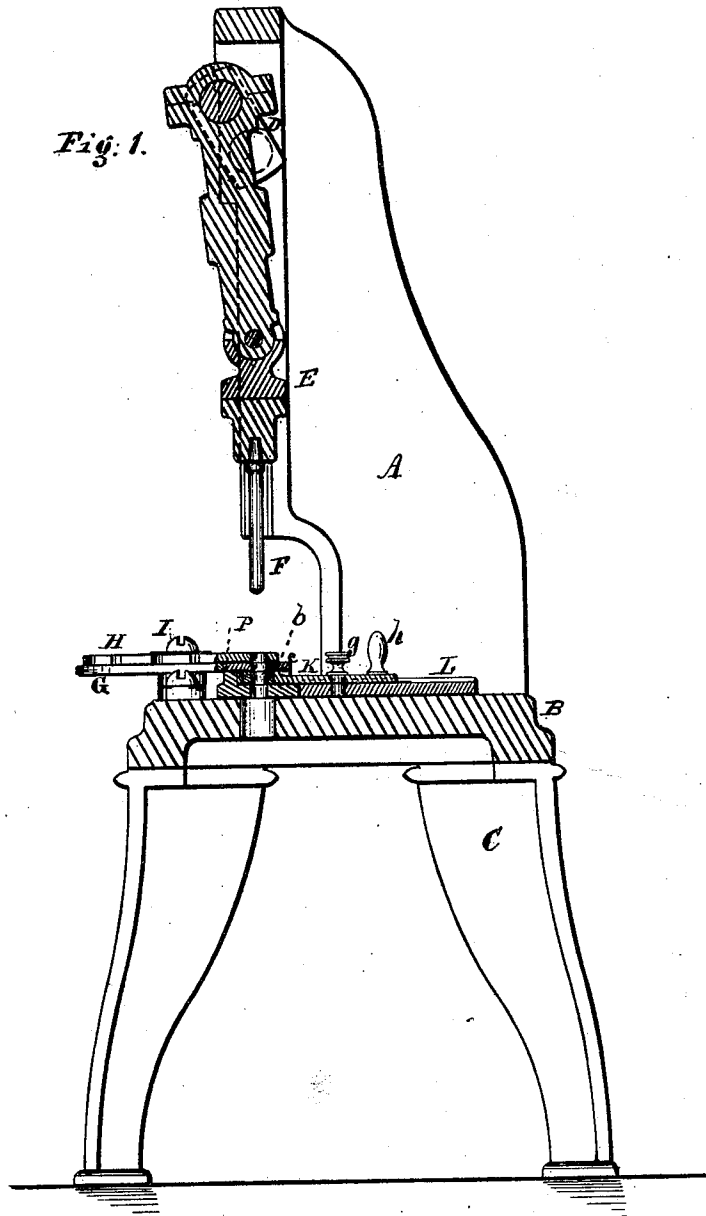


A. C. HOBBS.

MACHINES FOR DRAWING CARTRIDGE SHELLS.

No. 177,068.

Patented May 9, 1876.



Witnesses.

Geo. Hebard.
Geo. W. Smith.

A. C. Hobbs.
By his Attorney
S. W. Wood

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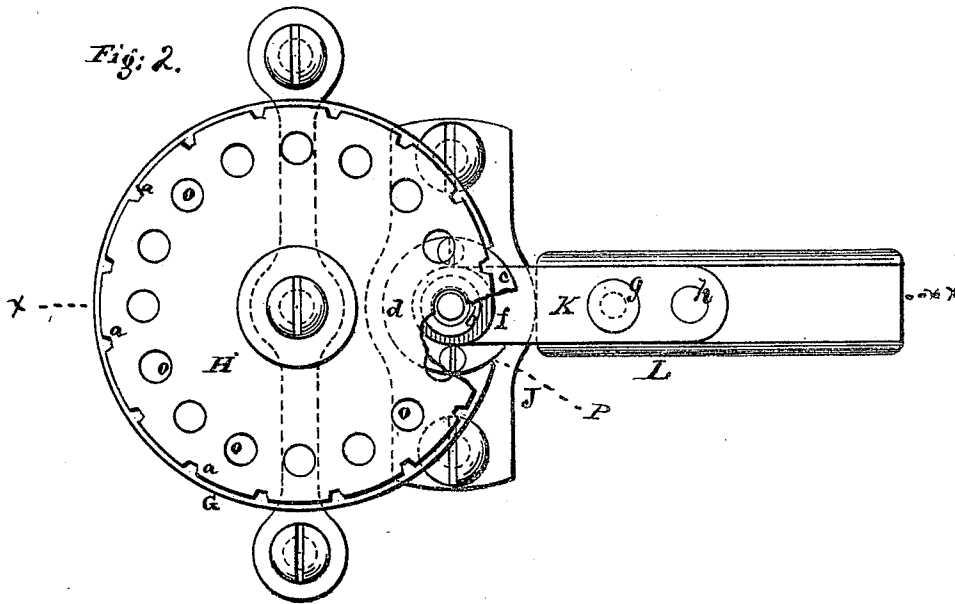
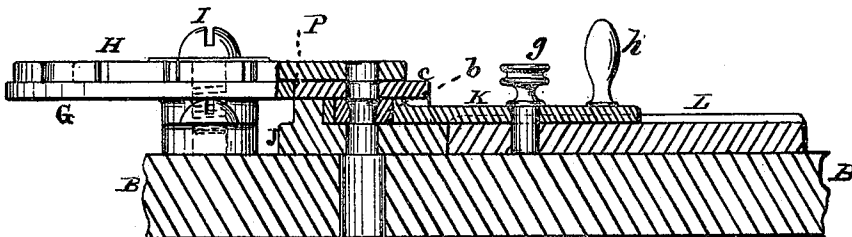


Fig. 3.



Witnesses

G. Stebbins
Geo. Smith

A. C. Hobbs
By his Attorney
S. W. Wood

UNITED STATES PATENT OFFICE.

ALFRED C. HOBBS, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR DRAWING CARTRIDGE-SHELLS.

Specification forming part of Letters Patent No. **177,068**, dated May 9, 1876; application filed August 7, 1874.

To all whom it may concern:

Be it known that I, ALFRED CHARLES HOBBS, of Bridgeport, State of Connecticut, have invented a new and useful Improvement in Setting or Changing Dies in Presses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a central vertical section of a press for drawing metallic shells for cartridges, having my improvement applied thereto; Fig. 2, a plan or top view of a rotating feed-dial, with a fragment removed, showing beneath the stationary bed-plate, upon which it revolves, die-block for supporting the die, and cap secured thereon, to hold the die in place while the punch is being withdrawn from the shell; Fig. 3, a central vertical section of Fig. 2, through the line *x x*.

Like letters designate corresponding parts in all of the figures.

My invention relates to a press for drawing, punching, or shaping metals or fibrous substances of a movable or removable die-holder, so constructed and arranged that said die-holder may be withdrawn to set a die or to change dies, and replaced in position without removing any part of the press proper.

To better illustrate my invention I have represented it in the accompanying drawings as adapted to a press for drawing shells for metallic cartridges, in which *A* represents a suitable frame, upon which are mounted and secured the several working parts of the mechanism, the bed *B* resting upon and attached to legs *C* in any convenient manner. Operating by means of a crank, *D*, in the upper front part of the frame *A*, is a vertical slide, *E*, to which is securely fitted a punch, *F*, from which slide and crank this punch *F* receives an up-and-down motion, required in drawing shells for cartridges. Upon the bed *B* of the frame *A* is placed a fixed or stationary plate, *G*, which supports the rotating feed-dial *H*, and upon which the shells rest and slide while being presented, one by one, by the feed-dial, to the die and punch beneath to be drawn. The rotating feed-dial *H* is held in position upon this stationary plate *G* by a central pin, *I*, and

is rotated intermittently by a pawl taking into notches *a*, formed in its periphery in the usual manner. Beneath this stationary plate *G*, and at one side thereof, as shown in Fig. 2, and resting upon and secured to the bed *B*, is a die-block, *J*, upon which the die *b* rests, and to which is firmly attached a cap, *c*, for retaining the die *b* in position, while the punch *F* is being withdrawn therefrom. Thus the die-block and cap conjointly present a recess, into which the sliding guide *K*, with its die *b*, passes to be properly adjusted beneath the punch.

At one side of this stationary plate *G* is a notch or recess, *P*, into which the cap *c* projects, so that its upper surface is flush with the face of the said stationary plate *G*, that the shells to be drawn may slide as smoothly to the die *b* as though they passed over one unbroken surface. (See Figs. 2 and 3.)

Fitted to the recess *P*, formed by the die-block *J* and cap *c*, and moving in ways *L*, is a slide, *K*, the inner end *f* of which is perforated to receive, hold, and guide the die *b* into the recess of the die-block and cap, to the required position, directly beneath the punch *F*, to receive the shells presented one by one through the medium of the rotating feed-dial *H*, to be drawn.

This slide *K*, with its die *b*, is retained in position while shells are being presented by the feed-dial *H*, and drawn by means of a pin, *g*, or any other suitable device, and by withdrawing this pin *g*, and moving the slide *K* back out of the recess in the die-block and cap, a die may be set or dies exchanged, and the slide replaced in position without interfering or removing any part of the press proper.

For convenience of moving the slide *K* back and forth, a handle, *h*, is provided, as represented.

To recapitulate: Shells to be drawn are placed in the recesses *o* in the feed-dial, and, sliding upon the stationary plate *G* beneath, are presented by an intermittent movement of the dial, one by one, to the opening in the cap *c*, and thence, by the punch *F*, are forced into or through the die *b*, and thereby drawn, and so on the process of drawing is repeated; and to set or exchange dies without removing any part of the press, the pin *g* is withdrawn, the slide *K* moved back out of its recess in

the die-block, the die *b* set or exchanged, the slide again moved forward into its recess, and the operation of drawing proceeded with without material delay.

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

The combination, with a reciprocating punch or plunger, of a die-support and perforated die retainer or cap, a sliding die-holder, and

a die so conditioned in said holder that it is allowed a slight lateral play, in order to insure, by the action of the punch, coincidence or alignment of the die with the perforation in the retainer or cap, substantially as herein set forth.

ALFRED C. HOBBS.

Witnesses:

HENRY C. RYLANDS,
HENRY C. MALLETT.