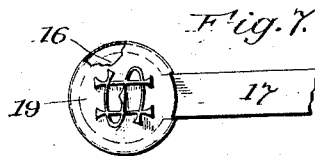
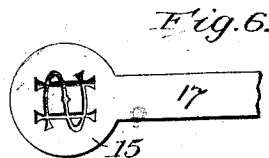
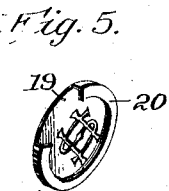
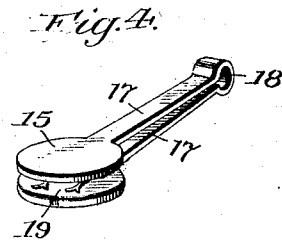
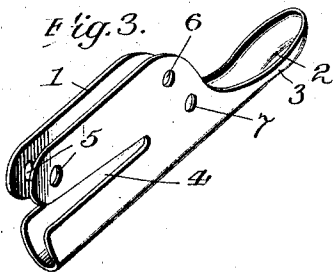
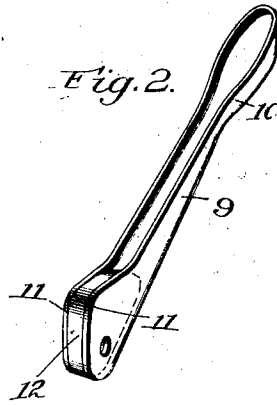
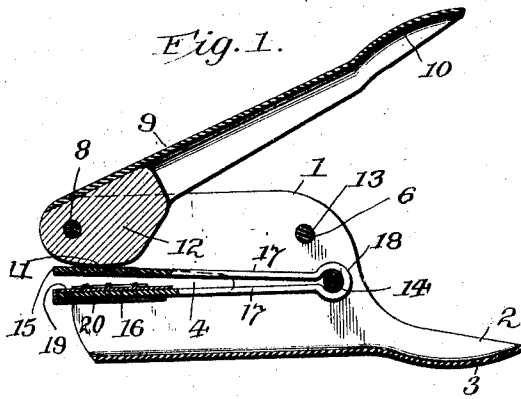


A. W. ROOVERS.
DIE PRESS.
APPLICATION FILED NOV. 9, 1909.

1,016,292.

Patented Feb. 6, 1912.



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UNITED STATES PATENT OFFICE.

ALFRED W. ROOVERS, OF BROOKLYN, NEW YORK.

DIE-PRESS.

1,016,292.

Specification of Letters Patent.

Patented Feb. 6, 1912.

Application filed November 9, 1909. Serial No. 527,093.

To all whom it may concern:

Be it known that I, ALFRED W. ROOVERS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Die-Presses, of which the following is a specification.

This invention relates to hand presses adapted to impress seals, monograms, or other designs upon paper or similar material.

The invention resides in the form and construction of the parts whereby the press is constructed completely of stampings. It is consequently capable of cheap manufacture without sacrifice of strength or accuracy.

A press embodying the features of my invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a longitudinal section of the assembled device, the plane of section being taken upon the center line; Fig. 2 is a perspective view of the cam lever removed from the device; Fig. 3 is a perspective view of the frame; Fig. 4 is a perspective view of the combined die carrier and spring; Fig. 5 is a perspective view of the male die, showing it in the form it assumes after being attached to the die carrier; Fig. 6 is a detail view of one die carrier, showing the female die impressed directly therein; and Fig. 7 is a detail view of the male die and its carrier, parts of the former being broken away to show the latter.

As clearly illustrated in Figs. 1 and 3, the frame for the press consists of a sheet metal stamping 1, symmetrical with respect to a line and bent upon itself along this line, so that the two side portions form two parallel side plates, spaced from each other a convenient distance preferably about a quarter of an inch.

The side plates are narrowed or cut away at the rear portion, so as to form a short projection 2, adapted to serve as a handle, and this portion 2 is forced into a rounded or spherical form, as at 3, to give a more comfortable grip to the hand of the operator. Extending from the forward end of the frame are tapering slots 4, similarly located in each side plate. These slots are for the reception of the combined die carriers and spring, as will be described. The two side plates are further provided with simi-

larly located holes 5, 6, and 7, adapted to the reception of rivets, which serve to position certain parts of the device, and to brace the side plates together.

The rivet 8, which passes through the holes 5, serves as a fulcrum for the cam lever 9. This is formed of a stamping symmetrical with respect to a line, and bent along this line so that the two side portions of the stamping are parallel to each other.

The outer end of the lever stamping is pressed into approximately spherical form, as at 10, to serve as a convenient hand grip, and the two side portions of the stamping at the end adjacent the rivet are shaped to form cam surfaces 11. A filler block 12, of similar contour, is inserted between these two cam surfaces 11, and is held in place by the rivet 8. The thickness of the lever, measured through the cam surfaces 11, is such that the lever fits snugly between the side plates of the frame 1. A rivet 13 is inserted in the holes 6 to strengthen the frame, and serve as a limit stop for the cam lever, while a third rivet 14 passes through the holes 7 and serves to hold in place the combined die carrier and spring. This consists of a stamping comprising two disk-like portions 15 and 16, connected by a narrower straight portion 17, bent upon itself at its middle, so as to bring the portions 15 and 16, which are the die carriers, adjacent to each other, as shown in Figs. 1 and 4. The bend in the portion 17 is made with a loop or goose neck 18. This loop 18 surrounds the rivet 14, and thereby holds the die carrier and spring in its position in the frame 1, and also furnishes greater resiliency.

As clearly shown in Fig. 1, the die carriers 15 and 16 lie in the slots 4, beneath the cam 11, so as to be forced together by the rotation of this cam. The portion 17 extends rearwardly and fits closely between the side plates of the frame 1, thus preventing lateral motion of the dies, while the rivet 14 prevents longitudinal motion. The dies are thus constrained to move directly toward and from each other in an approximately circular path. The female die carrier 15 has the die impressed directly in its surface. The male die, however, is pressed in a sheet metal stamping 19, having flanges 20 (see Fig. 5), spun around the periphery of the die carrier 16.

By adopting this construction I am enabled to form both dies of stampings.

From the foregoing description, the operation of the device will be obvious.

5 By stamping both the dies, I am enabled greatly to cheapen the cost of manufacture, and it is also obvious that the die carriers, frame, and handle may each be stamped out at one operation, the holes, slots, etc.,
10 being punched out at the same time that the blank is made. It is then only necessary to press them to form and assemble the various parts.

In mounting the male die upon its carrier 16 I find the following procedure advantageous to secure accurate register of the dies. After the female die is impressed in the carrier 15 the two carriers are brought into their final positions as shown
20 in Fig. 4 by forming the bend 18. The male die 19 is then placed on the carrier 16. At this stage it is cup-shaped, the flanges being not yet bent down. The two die carriers are then forced together so
25 that the male and female dies are forced together in accurate register and while the dies are so held the flanges 20 are spun down upon the back of the carrier 16, thus securing accurate positioning of the dies.
30 The carrier 16 may be made slightly smaller than the carrier 15 so that the finished male die shall have the same outside diameter as the female die, and the stamping 19 forming the male die is preferably made large enough
35 to fit loosely over the carrier 16 prior to the crimping of the flanges to allow motion of the male die in the process of adjusting it to the female die.

40 Having thus described my invention, what I claim is:—

1. The combination of actuating means; cooperating die faces each formed in sheet metal; a connecting guiding member formed integral with one die and attached to the
45 other die, the said guiding member having a narrowed resilient portion bent upon itself to form a loop and to bring the dies into proximity; and a pin engaging said

loop to retain the guiding member in proper relation with the actuating means. 50

2. A die press comprising a frame; actuating means mounted therein; a pair of dies actuated by said means; a resilient connection between the dies comprising a strip of sheet metal bent upon itself and
55 adapted to be guided by the frame; and a pin engaging said resilient portion and the frame.

3. A die press comprising a frame composed of sheet metal slotted and folded upon
60 itself to form side plates; a cam lever pivoted in said frame; a pair of die carriers mounted in the slots of the frame so as to be actuated by the cam lever; a connecting resilient portion formed integrally with
65 said carrier and guided by the side plates of the frame; a retaining pin in the frame engaging said resilient connecting portion; a die impressed in one carrier; and a second die formed in sheet material and at-
70 tached to the other carrier.

4. In a die press, the combination of a frame consisting of a piece of sheet material provided with two slots and bent upon
75 itself to form side plates spaced apart and to bring said slots into alinement; a die actuating lever pivoted in the frame; a resilient die carrier consisting of two head portions connected by a narrowed portion
80 bent upon itself to bring the head portions into proximity, the die carrier being inserted in the frame with its narrowed portion confined between the side plates and the head portions in the slots and beneath
85 the actuating lever; a pin engaging the die carrier to hold it in position; and die faces carried by the head portions of the carrier.

In testimony whereof I have signed my name to this specification in the presence
90 of two subscribing witnesses.

ALFRED W. ROOVERS.

Witnesses:

REMSEN RUSHMORE,
EDWIN G. FORSTER.