

REYNOLDS & HILBRIGHT.

Die for forming Metal Heads on Harness Nails.

No. 55,536.

Patented June 12, 1866.

Fig. 1.

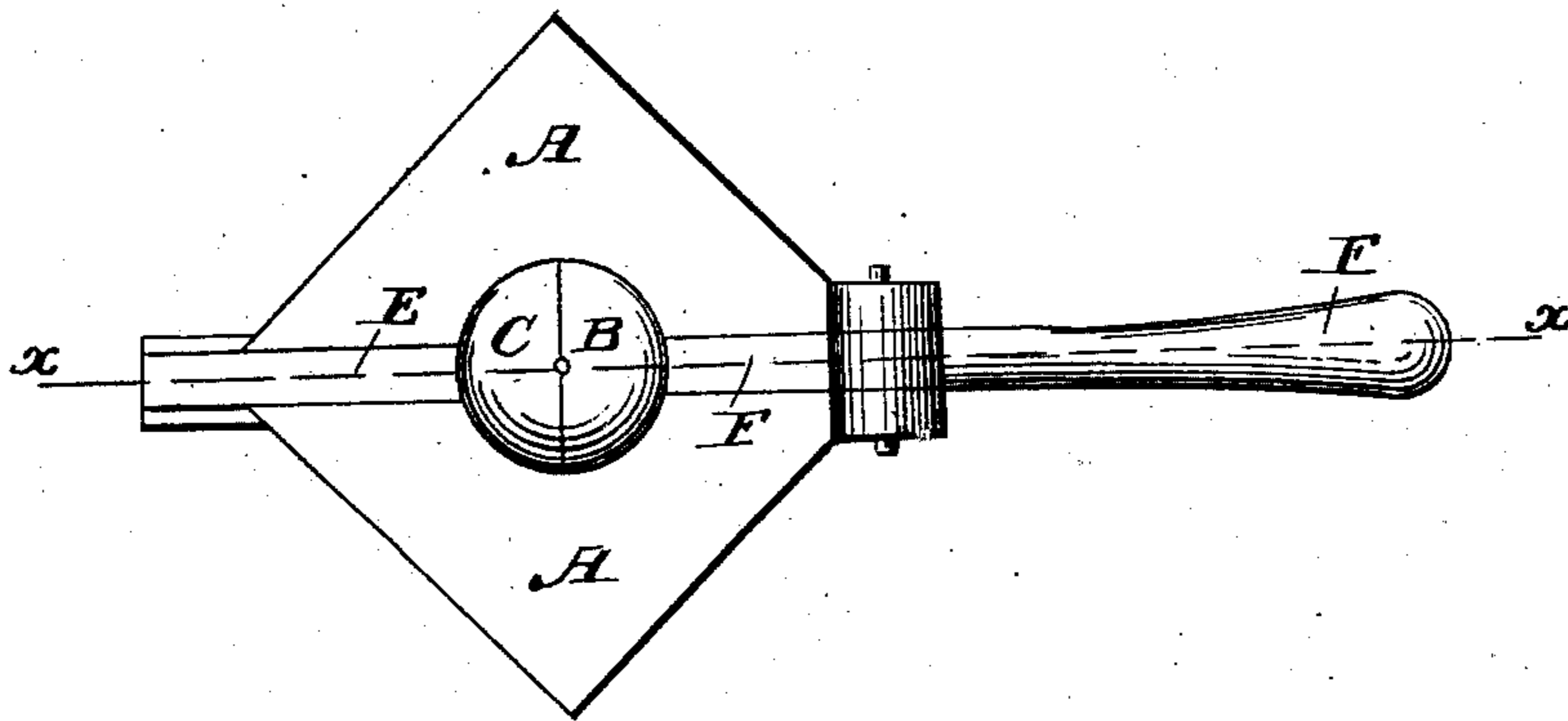
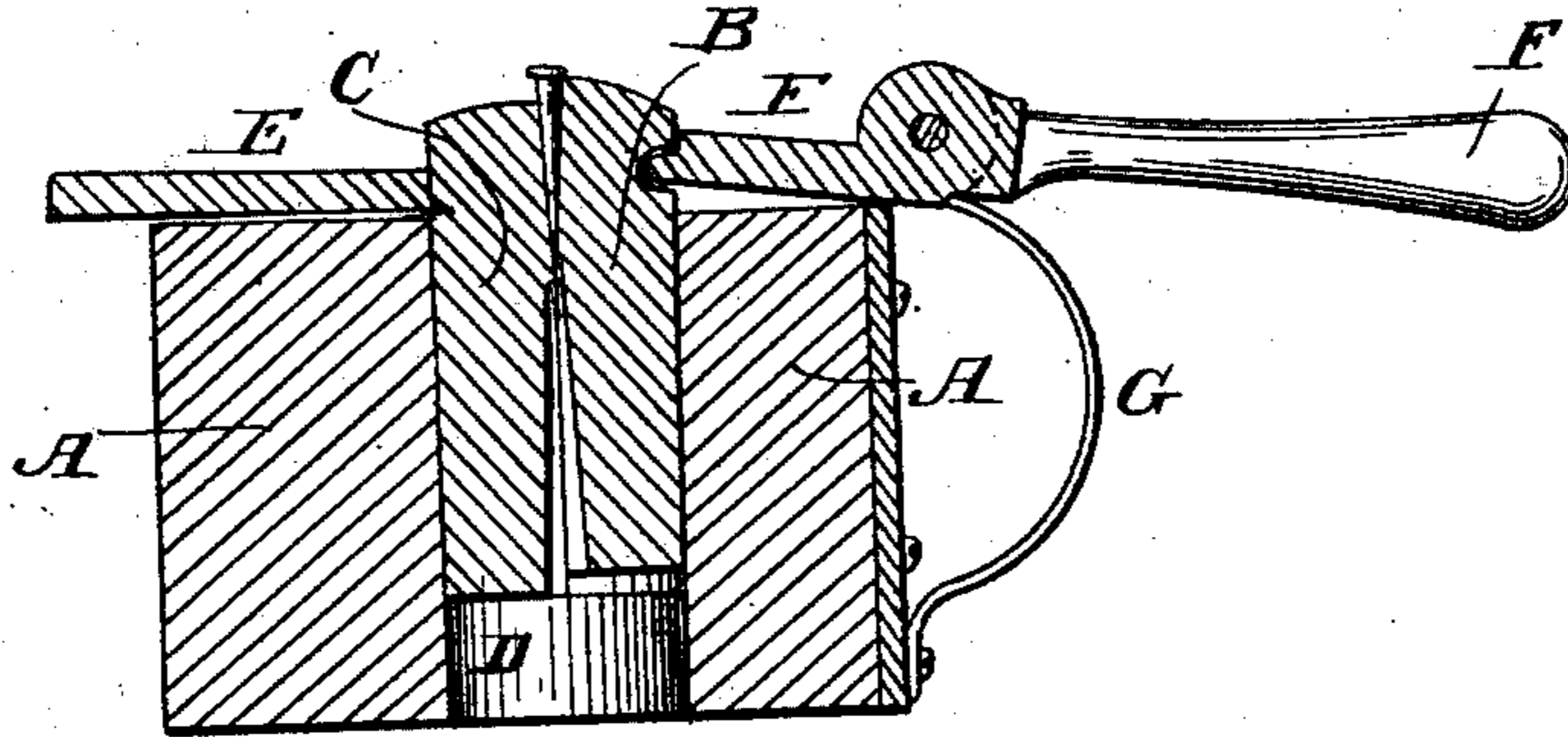


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

F. REYNOLD AND F. L. HILBRIGHT, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN DIES FOR FORMING METAL HEADS ON HARNESS-NAILS.

Specification forming part of Letters Patent No. 55,536, dated June 12, 1866.

To all whom it may concern:

Be it known that we, FREDERICK REYNOLD and FREDRICK LOUIS HILBRIGHT, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Dies for Forming the Soft-Metal Heads of Harness-Nails; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of our improved die. Fig. 2 is a vertical section of our improved die, taken through the line *xx*, Fig. 1.

Similar letters of reference indicate like parts.

Our invention has for its object to furnish an improved die for forming and plating the soft-metal heads of harness-nails; and it consists, first, of the combination of the half-dies constructed as described with the block in which they are placed; second, in the combination of the lever with the block and with one of the half-dies; third, in the combination of a spring with the block and with the lever; and, fourth, in the combination of the wedge-stop with the block and one of the half-dies.

A is the block, which is secured to the bed of the press or drop by set-screws or in any other known way. In the center of the block A is formed a vertical hole for the reception of the half-dies B and C. This hole may be round, as shown in the drawings, or of any other desired form. The half-dies together closely fill the hole in the block A, and may be of such a length as to rest upon the bed of the press or drop; or they may rest upon a block or plug, D, fitted into the lower part of the hole, as shown in Fig. 2. In the side of the half-die C is formed a notch, into which projects the end of the wedge or stop E. This stop is fitted into a dovetailed notch or groove formed in the upper part of the block A, and is designed to keep the said half-die C in place. In the side of the half-die B is formed a groove, as shown in Fig. 2, into which enters the end of the lever F. This lever is pivoted to ears projecting from the edge of the block A, and its free end projects beyond the block, as

shown. The design of this lever is to lift the half-die B so far from its place in the block A as to throw the nail out of the die. The lever F is held up to its place, except when operated to throw out a nail, by the spring G, one end of which is attached to the side of the block A, and the other presses against the lower side of the free end of the lever F, as shown in Fig. 2. Between the half-dies B and C is formed a small hole for the reception of the body of the nail, leaving the globule of soft metal from which the head is to be formed projecting above the faces of the die. The die is designed to be used with either a press or a drop, and the particular form to be given to the upper part of the head of the nail is formed in the movable part of the die in the usual manner.

It should be observed that the faces of the half-dies B and C should be so formed as to leave the under side of the nail's head perfectly flat.

It should also be observed that the operation will slightly flatten the nails by forcing a small part of the metal into the seam between the half-dies. This slightly-flattened form is an advantage to the nails, as it prevents their turning in the leather in which they may be placed.

We claim as new and desire to secure by Letters Patent—

1. The half-dies B and C, constructed as described, in combination with each other and with the block A, substantially as and for the purpose set forth.

2. The combination of the lever F with the block A and with the half-die B, substantially as described, and for the purpose set forth.

3. The combination of the spring G with the block A and with the lever F, substantially as described, and for the purpose set forth.

4. The combination of the wedge-stop E with the block A and with the half-die C, substantially as described, and for the purpose set forth.

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