

G. HARRINGTON & G. D. ROLLINS.

Dies for Paper-Collar Machinery.

No. 139,146.

Patented May 20, 1873.

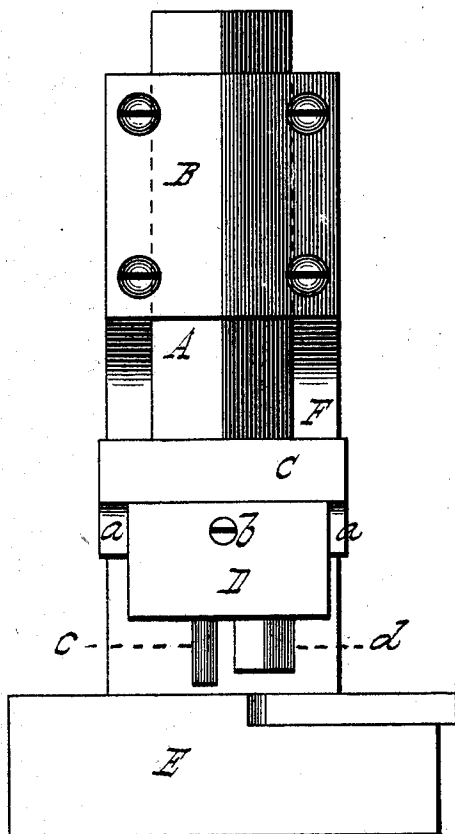


Fig. 1

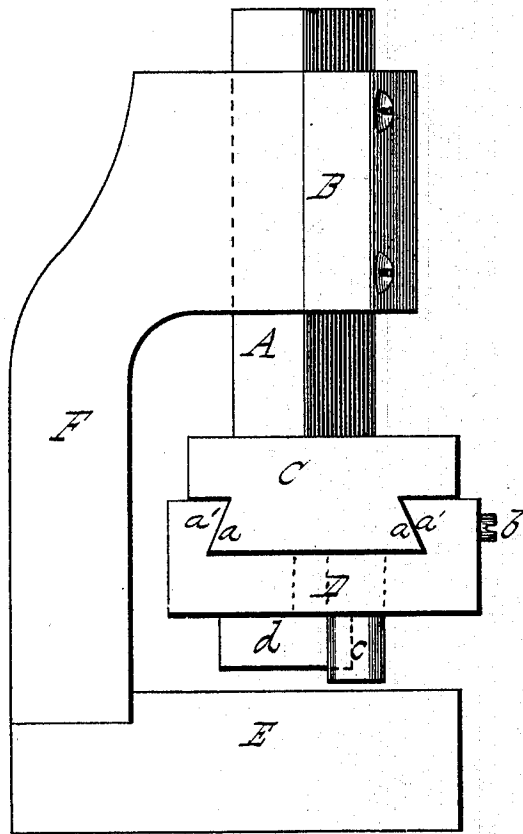


Fig. 2

Witnesses.

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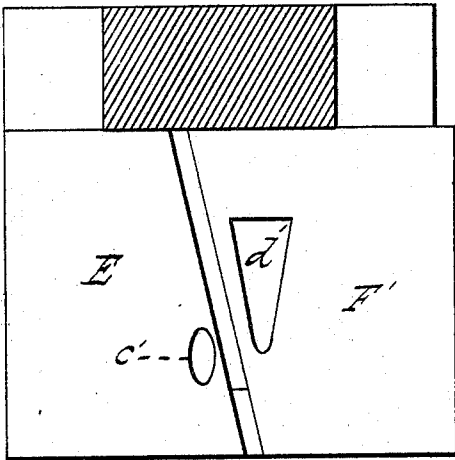


Fig. 3

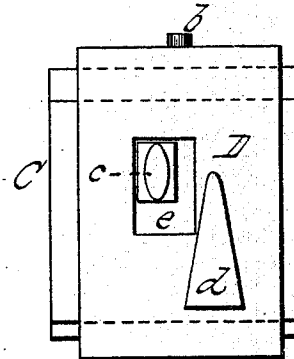


Fig. 4

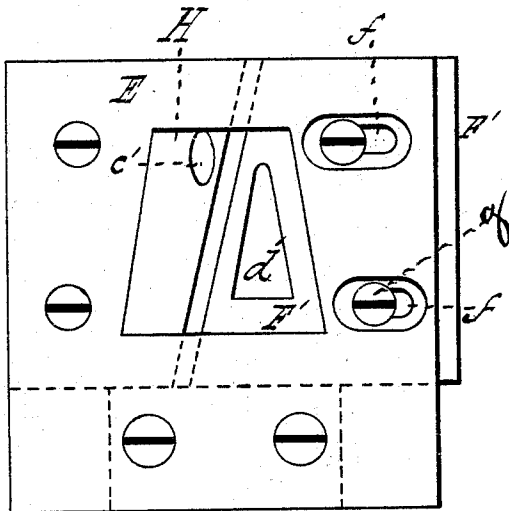
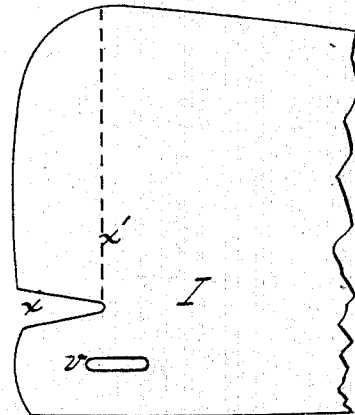


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE HARRINGTON AND GEORGE D. ROLLINS, OF SPRINGFIELD, MASS.

IMPROVEMENT IN DIES FOR PAPER-COLLAR MACHINERY.

Specification forming part of Letters Patent No. **139,146**, dated May 20, 1873; application filed February 26, 1873.

To all whom it may concern:

Be it known that we, GEORGE HARRINGTON and GEORGE D. ROLLINS, both of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Dies for Paper-Collar Machinery; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a front view of our invention. Fig 2 is a side view of the same. Fig. 3 is a plan view of the lower part of the device containing the counter-dies. Fig. 4 is a reverse plan view of the upper part of the stamp containing the dies, and Fig. 5 is a reverse plan view of the lower part of the stamp.

Our invention relates to stamps in which are fixed dies for punching the button-holes of paper collars, in connection with other dies for punching out a small piece at the end of the turn-down part of the collar, whereby a flap is formed, which is turned back to give the end of the collar a more finished appearance; and it consists of a piston working in the arm of an ordinary button-hole stamp, to the lower end of which is attached a plunger provided with dovetail or bevel ways, which sustain a secondary plunger, which may be moved in either direction upon said ways, and may be firmly fixed thereto by a set-screw. A button-hole die is made upon the upper permanent plunger, and extending down through a somewhat larger hole in the lower movable plunger sufficiently that its lower end may enter a correspondingly-shaped fixed counter-die in the base of the stamp; and upon the lower movable plunger is made a triangular-shaped die, extending down sufficiently to enter a correspondingly-shaped movable counter-die, which may be adjusted and fixed to the base of the stamp by set-screws.

The object of our invention is to cut out a small piece at the end of a turn-down collar to form the flap, which is turned under at the same time that the button-holes are punched; and to enable us to do this we make the die and counter-die in connection with the die and counter-die of a button-hole punch, and

adjustable thereon at any desired distance from the button-hole die.

That others skilled in the art may be able to make and use our invention, we will proceed to describe its construction and operation.

In the drawing, A represents the plunger-rod of an ordinary button-hole punch, upon the bottom of which is made a plunger, C, having thereon a lower projecting part provided with bevel sides or ways, which fit into a recess in the upper part of the movable plunger D, provided with corresponding bevel sides, and the lower plunger D may be moved to and fro upon these ways, and may be fixed firmly to the upper plunger C, in any desired position, by turning in the set-screw *b* against said plunger. The button-hole die *c* is made upon the upper fixed plunger C, and extends down through the hole *e* in the lower movable plunger D, which hole is sufficiently large to permit the lower plunger D to be moved either way without interfering with the button-hole die *c*, and the latter is sufficiently long to enter the correspondingly-shaped counter-die *c'* in the base E. Upon the lower side of the lower and movable plunger D is made a triangular-shaped die, which fits a correspondingly-shaped hole, *d*, in the plate F', which plate is secured to the base E by the screws *g* passing up through the slots *f* in the base E, by which means the plate F' is movable in the same direction as the plunger D, and the hole *d'* may be by the screws *g* secured directly beneath the die *d*.

The operation of our invention is as follows: I represents the end of a turn-down collar, having a piece or recess, *x*, cut out, thereby forming a flap, which is folded at the dotted line *x'*, to give the end of the collar a more finished appearance, and the part *x* is cut out by setting the plunger D so that the die *d* shall be the required distance from the button-hole die *c*, and securing it by the set-screw *b*, and setting the plate F' so that the hole *d'* shall be the same distance from the hole *c'*, and securing it by the set-screws *g*; and as the end of the collar is placed beneath the plungers, and the latter forced down, both the button-hole *v* and the part *x* are punched out at the same time.

This method of forming the end of a collar saves much expense in the manufacture of the knives to cut out the blanks for collars, as knives having corners corresponding to the recess *x* are much more expensive to make, and, when made, are the weakest points in the knife, are constantly becoming broken, and are expensive to repair, while by using the dies herein described the knives for the blanks may be more regular in their outline, and free from corners; and there is no expenditure of time or labor in cutting out the recess *x* by this method, as it is done when the button-hole is cut, it only being necessary to adjust the die *d* and its counter-die the proper distance from the button-hole die *c* and its counter-die for preparing collars of different sizes.

Punches made as herein described may be attached to any of the ordinary paper-collar

machinery, or they may be operated separately from any other machinery, as may be most desirable; and when operated in either case, the waste punched out falls through the opening H in the base E, made for that purpose.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination of the fixed plunger C and base E, provided, respectively, with a button-hole die and counter-die, with the movable plunger D and base F', provided, respectively, with a die, *d*, and corresponding counter-die, substantially as described.

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Witnesses:

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