

F. M. HUNTINGTON.

Machines for Cutting Planchets and Annular Blanks.

No. 155,800.

Patented Oct. 13, 1874.

Fig. 1

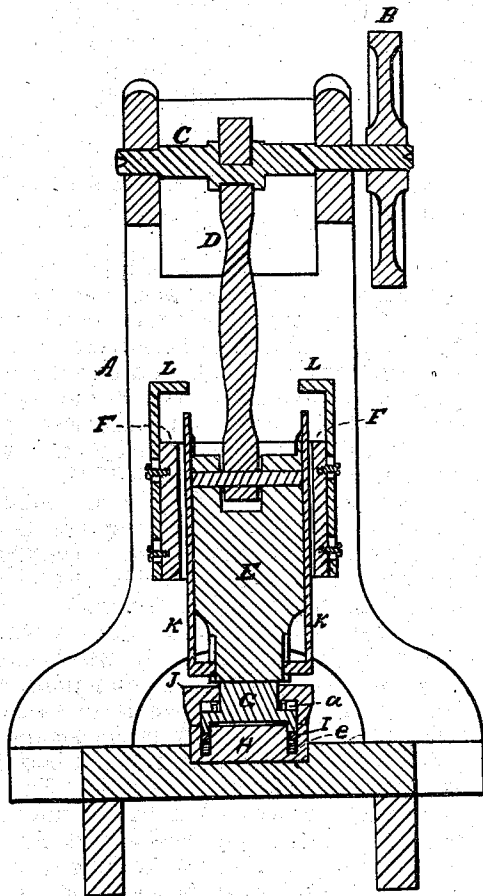


Fig. 2

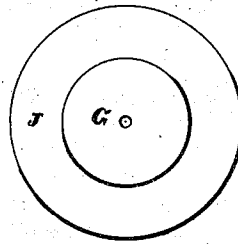


Fig. 3

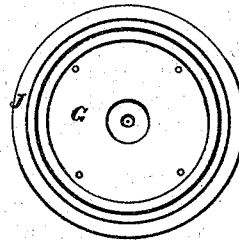
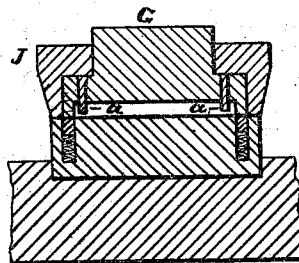


Fig. 4



WITNESSES.

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UNITED STATES PATENT OFFICE.

FREDERICK M. HUNTINGTON, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK STURGES & CO., OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR CUTTING PLANCHETS AND ANNULAR BLANKS.

Specification forming part of Letters Patent No. **155,800**, dated October 13, 1874; application filed August 12, 1874.

To all whom it may concern:

Be it known that I, FREDERICK M. HUNTINGTON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Machines for Cutting and Burring Sheet-Metal Blanks, of which improvements the following is a full, clear, and exact description, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part hereof, and in which—

Figure 1 is a vertical central section of a machine embodying my invention; Fig. 2, a top or plan view of the male die and stripper; Fig. 3, a bottom view of the same; and Fig. 4, a central cross-section thereof and of the female die.

Like letters of reference indicate like parts.

The object of my invention is to provide improved means for stripping the scraps and the cut and burred disks from the dies.

In the drawing, A represents the frame of the machine. B is the driving-wheel, mounted on a crank-shaft, C, having bearings in the frame; and D is a connecting-rod or pitman, through the upper end of which the crank-pin passes, and the lower end of which is connected to a sliding block or head, E, riding in a guide-piece, F, attached to the frame. G is the male die, attached to the lower end of the part E. The upper end of this die is cut away, in the manner shown, forming a lateral annular flange or shoulder on its lower end, from the lower edge of which shoulder depends the part which is intended to enter the lower or female die. *a a* are headed pins passing vertically and freely through this shoulder, and arranged in a circle smaller than the part depending from it, as shown. H is a female die set into the base or table of the machine. I is a ring fitted nicely, but not tightly, into the groove in the die H, and resting on the

springs *e e*. J is a stripper, mounted freely on the shank of the male die, and lapping the vertical as well as the horizontal face of the shoulder described. K K are vertical slides playing in ways in the part E, and resting on the part J. L L are stops, preferably vertically adjustable, and arranged to limit the upward movement of the slides K K.

In order to form and burr the blanks, the metal sheets from which they are to be cut are properly arranged on the female die. By the time the male die reaches the sheet the part J and the pins *a a* have also reached, or nearly reached, it, and rest upon it, while the upper die enters the lower one. After the dies have performed their functions, and as soon as the male die begins to ascend, the burred blank is pushed from the female die by means of the yielding ring I, and both it and the scrap cling to the upper die. The slides K K reach the stops L L before the upward movement of the die ceases, and the blank is thus stripped from the die by means of the pins *a a*, and the scrap by means of the part J.

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

1. The combination of the stripper J, constructed substantially as described, the die G, provided with a lateral flange or shoulder, for limiting the downward movement of the stripper upon the die, and adjustable stops for limiting the upward movement of the stripper, substantially as and for the purpose specified.

2. The combination of the stripper J, loosely mounted on the upper die, the pins *a a*, the slides K K, and the stops L L, substantially as specified, and for the purposes set forth.

FREDERICK M. HUNTINGTON.

Witnesses:

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N. C. GRIDLEY.