

WILLIAM H. VAN CLEVE.

Improvement in Punching Machines.

No. 119,900.

Patented Oct. 10, 1871.

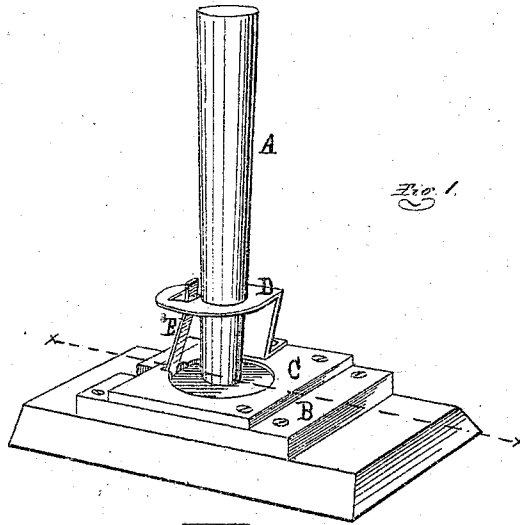


Fig. 1.

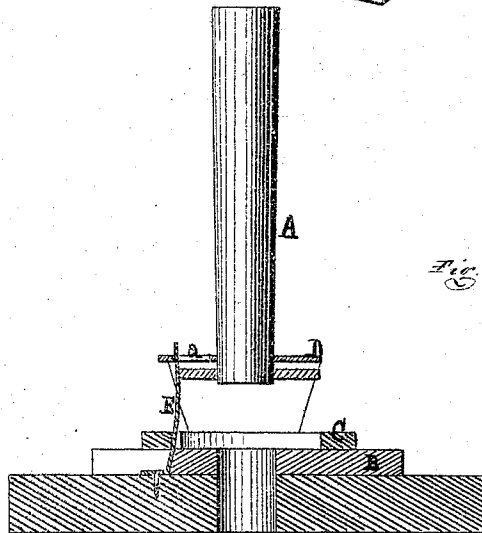


Fig. 2.

ATTEST:

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UNITED STATES PATENT OFFICE.

WILLIAM H. VAN CLEVE, OF YPSILANTI, MICHIGAN.

IMPROVEMENT IN PUNCHING-MACHINES.

Specification forming part of Letters Patent No. 119,900, dated October 10, 1871.

To all whom it may concern:

Be it known that I, WILLIAM H. VAN CLEVE, of Ypsilanti, in the county of Washtenaw and State of Michigan, have invented a new and useful Improvement in an Ejector for Punching-Dies; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a perspective view of a washer-punch in the act of perforating out a washer-blank; and Fig. 2 is a cross-section on the line *xx* in Fig. 1, showing the punch in the act of withdrawal and the ejector-spring nearly ready to eject the finished washer.

Like letters indicate like parts in each figure.

This invention has for its object to provide punching-presses with a simple spring which will throw to one side the punched article as it is detached from the punch by the stripper; and it consists in providing a simple spring attached to the die-plate, and operating as more fully hereinafter set forth.

In the drawing, A represents a machine-punch, operated in the usual manner; and B, the die. C is the gauge-plate resting on the die to center the washer-blank. D is the stripper, through which the punch plays, and is secured to the gauge-plate, as shown, or to any convenient part of the press, to strip the perforated washer from the punch in the usual manner.

All the foregoing parts are old and well known, and I disclaim the invention of any part thereof.

To get the completed article out of the way as soon as detached from the punch by the strip-

per has heretofore caused much trouble, and to overcome the difficulty is the object of my invention, which I effectually accomplish in the following manner: To the die I secure the lower end of a leaf-spring, E, passing up on the inner side of a recess formed in one side of the gauge-plate, its free end projecting up through a slot, *a*, in the stripping-plate. The base of the spring should be set far enough to one side to not interfere with the proper placing of the blank on the die, while its upper end is inclined toward, but not interfering with the punch. As the punch rises after perforating the blank it carries the latter with it until the stripping-plate is reached, when, in the further rising of the punch, it is detached therefrom, when the pressure of the spring, exerted against its side, shoots the finished article out from under the stripper with a force proportionate to the tension of the spring. It is not necessary that the spring should project up through the stripping-plate, or that the slot *a* be made in the latter, as that side of the plate can be entirely cut away without detriment. Although shown attached to a washer-press, it will readily be seen that my invention is equally applicable to other punches for punching or stamping blank-die work of every description.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the bed-plate C, punch A, stripper D, and spring B, substantially as and for the purpose specified.

WILLIAM H. VAN CLEVE.

Witnesses:

HARRY S. SPRAGUE,
H. F. EBERTS.

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