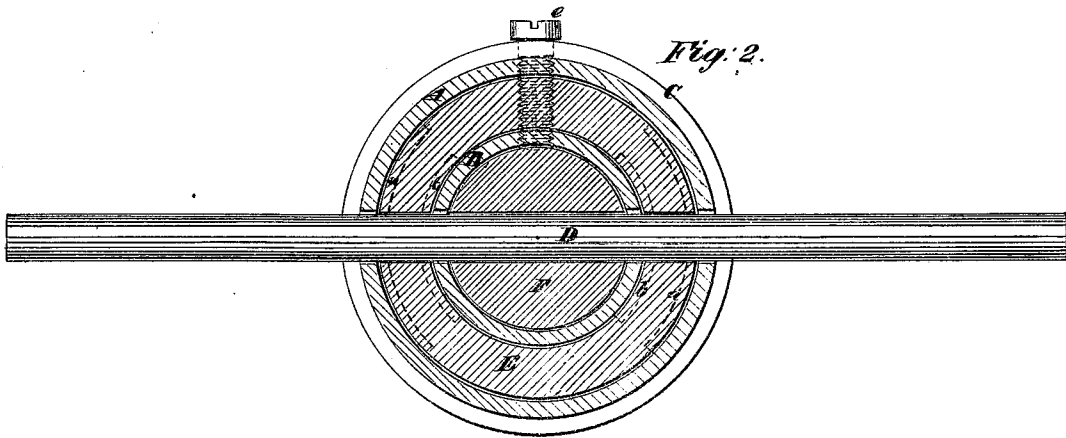
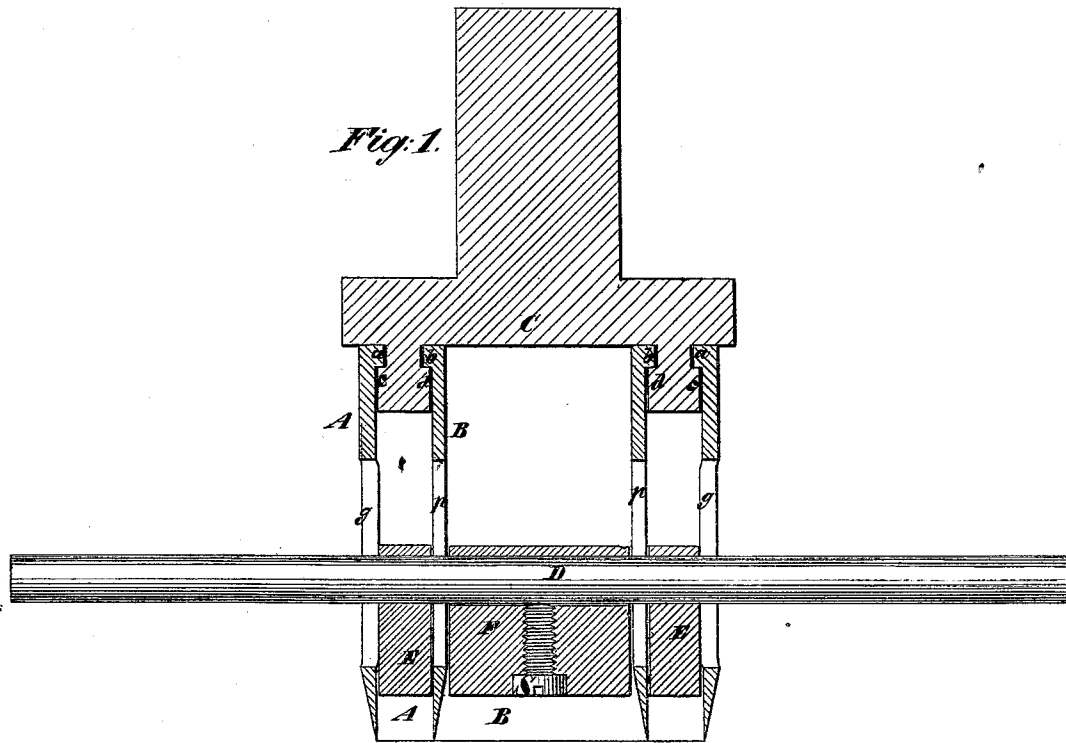


E. S. HIDDEN.
Cutter for Cutting Washers.

No. 126,295.

Patented April 30, 1872.



Witnesses:

Henry J. Brown
Frederick Hays

E. S. Hidden

UNITED STATES PATENT OFFICE.

EDWARD S. HIDDEN, OF MILBURN, NEW JERSEY.

IMPROVEMENT IN CUTTERS FOR CUTTING WASHERS.

Specification forming part of Letters Patent No. 126,295, dated April 30, 1872.

Specification describing an Improvement in Cutters or Punches for Cutting Washers and other Articles, the invention of EDWARD S. HIDDEN, of Milburn, in the county of Essex and State of New Jersey.

This invention relates to hollow punches, either single or double, designed for cutting washers and other articles from leather and other soft material. The invention consists in the combination with such a punch, having a reciprocating motion, of a stationary discharger, occupying the circular space within a single punch or the circular space within the inner of two punches, forming a double punch, and the annular space between the two, whereby the cut articles are automatically discharged from the punch, by the retraction of the latter, after each cutting operation.

In the accompanying drawing, Figure 1 is a central longitudinal section of a double punch constructed according to my invention, designed for cutting washers; and Fig. 2 is a transverse section of the same.

Similar letters of reference indicate corresponding parts in both figures.

A and B are the two annular cutters of which the punch is composed, having sharp cutting-edges like those of the cutters ordinarily employed for manufacturing washers. They are both secured, one within the other, to the same stock C, by means of segmental lugs *a a* and *b b* on them, fitting over similarly-shaped lugs *c c* and *d d* on a collar on said stock. A set-screw, *e*, screwing through the punches and into the stock, locks the whole together. Both punches are longitudi-

nally slotted at opposite points to receive a rod, D, which secures the discharger in place. The discharger is composed of two pieces, E and F, one of which, E, is of annular form, and fits snugly between the lower portion of the punches, and the other, F, is of circular form, and fits within the corresponding portion of the inner punch B. The rod D passes transversely through both pieces, and is secured within the inner, against longitudinal movement, by a set-screw, S, impinging against it. This rod also passes through the slots *g g* and *p p* in the punches A and B, and its projecting portions are secured to some stationary support, whereby the discharger is held stationary. The punch is operated in the ordinary manner, and at each up-stroke or retraction the cutting-edges of the cutter pass the discharger, and consequently the cut washer and center-piece are removed from it by coming in contact with the discharger. This invention is applied to a single punch in the same way, the discharger occupying the circular space within it.

Claim.

The combination, with a reciprocating hollow punch, of the stationary discharger, occupying the lower portion of the space within it, and otherwise applied, and operating substantially as and for the purpose herein set forth.

E. S. HIDDEN.

Witnesses:

HENRY T. BROWN,
FRED. HAYNES.