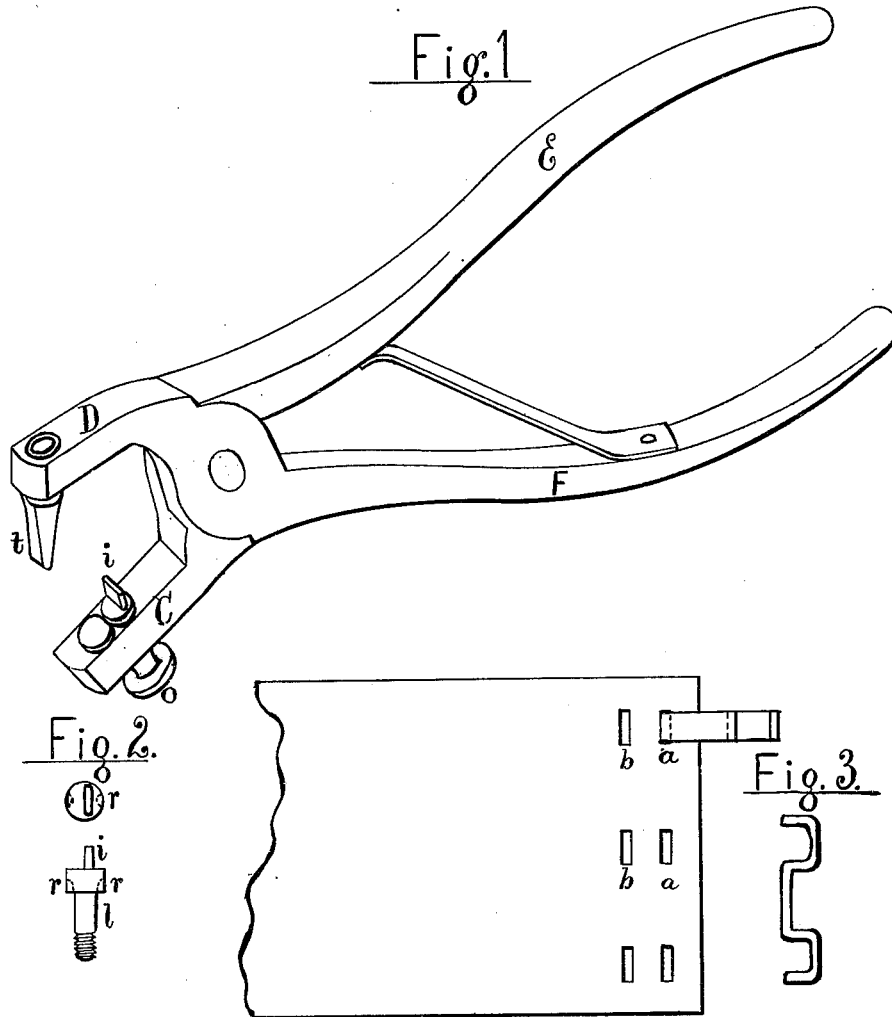


H. F. OSBORNE.

HAND PUNCH.

No. 187,896.

Patented Feb. 27, 1877.



Witnesses.

Edward A Day

A. D. Crane

Inventor.

H. Osborne, per

J. S. Crane Atty.

UNITED STATES PATENT OFFICE.

HENRY F. OSBORNE, OF NEWARK, NEW JERSEY, ASSIGNOR TO CHAMPION
BELT HOOK COMPANY, OF NEW YORK.

IMPROVEMENT IN HAND-PUNCHES.

Specification forming part of Letters Patent No. 187,896, dated February 27, 1877; application filed
January 24, 1877.

To all whom it may concern:

Be it known that I, HENRY F. OSBORNE, of Newark, Essex county, New Jersey, have invented an Improvement in Hand-Punches; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view of the punch. Fig. 2 is a detailed view of the eccentric guide-pin. Fig. 3 is a view of a piece of leather belting and belt-hook.

The various adjustable guides in use not being positive in their adjustment, I have sought to devise one that, while not adjustable, could be changed in its relation to the cutting-tube *t* a limited number of times with the greatest convenience as well as certainty.

I therefore recess or bore the lower jaw C of the punch C D E F at a suitable point near the seat on which the tube cuts, and in the recess or hole insert a stud, *l*, secured by a clamp-nut, *o*, and prevented from turning by a small pin in the jaw C, which fits into notches *r*, cut in the head of the stud *l*. On this stud *l* I form an eccentric guide-pin, *i*, of any required form, as round, flat, or polygonal, against which the substance to be punched is pressed when the tool is used. This pin, as shown in Fig. 2, being set off of the center of the stud *l*, is advanced toward the tube *t*, or withdrawn therefrom, by loosening the nut *o*, so that the stud *l* can be lifted from its steady-pin in the jaw C and turned in the required direction. Of course as many notches *r* will be required in the head of the stud *l* as there are sides or faces to the pin *i*, a square pin, *i*,

necessitating the provision of four holes in the stud *l*.

In the drawings the punch is shown fitted for the punching of belts for hooks of a peculiar kind, requiring two holes to be punched in each end of the belt.

The end of the belt being pushed (see Fig. 3) against the eccentric guide-pin *i*, the first row of holes (marked *a*) is punched, and the pin *i* being inserted in these holes, the next row *b* is correctly punched. As this special form of hook requires an oblong hole, only two positions of the stud *l* are possible, the one shown being adapted for the larger of two sizes of belt-hooks.

By reversing the stud *l* in the jaw C, it is evident that the guide-pin *i* would be advanced toward the tube *t* a certain amount, and the holes punched closer together in the belt.

For larger or smaller sizes of flat hooks than those named, another stud, *l*, can be constructed with a greater eccentricity in the pin *i*, and readily inserted in jaw C when required.

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

The combination, in a hand-punch, of the eccentric guide-pin *i*, formed on a stud, *l*, with the jaw C and the tube *t*, all constructed and operated substantially in the manner shown and described.

H. F. OSBORNE.

Witnesses:

THOS. S. CRANE,
A. H. TRIMPI.