

(No Model.)

G. A. GUNTHER & W. KOWALSKI.
Ticket Punch.

No. 243,550.

Patented June 28, 1881.

Fig. 1.

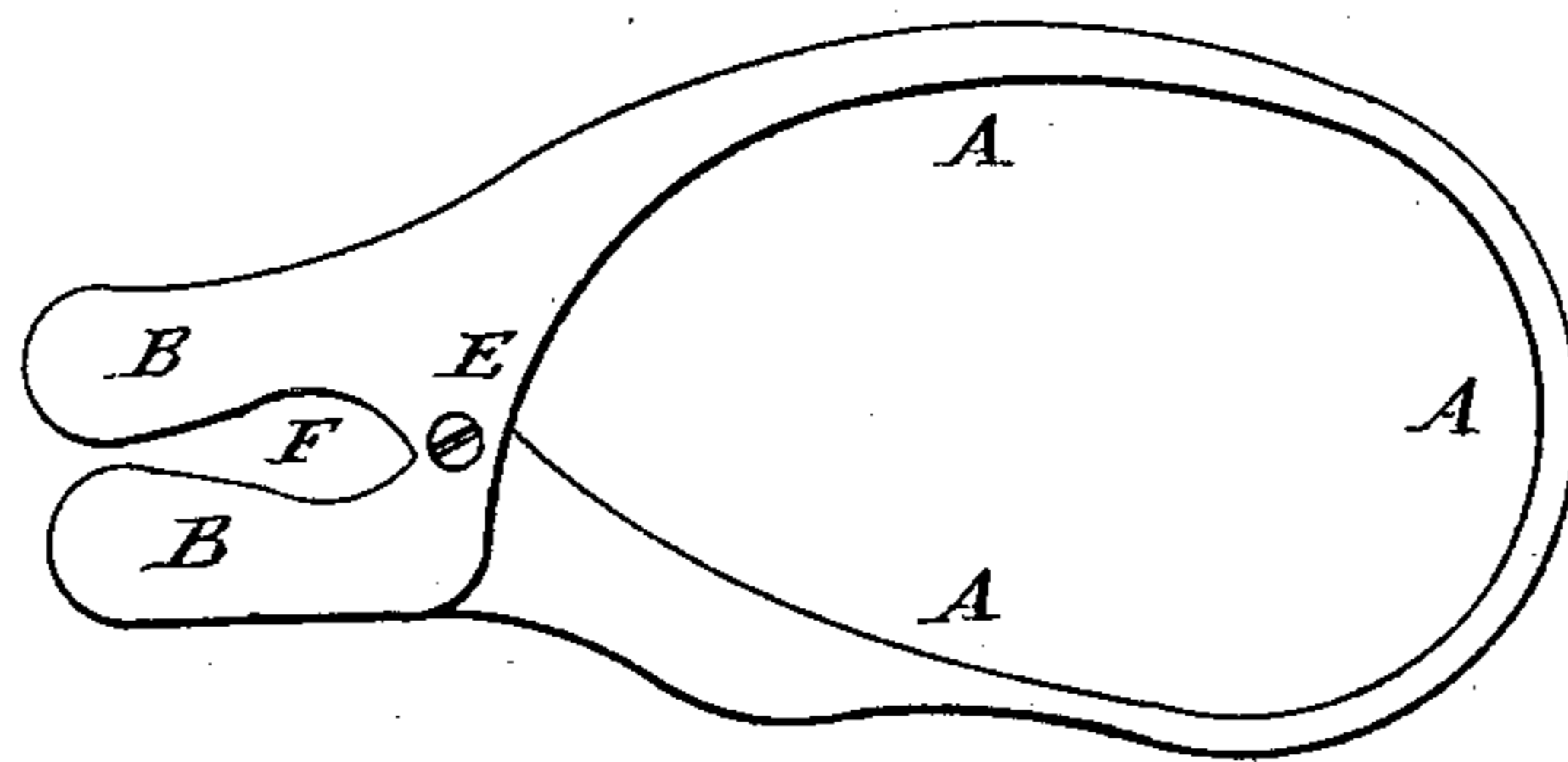


Fig. 2.

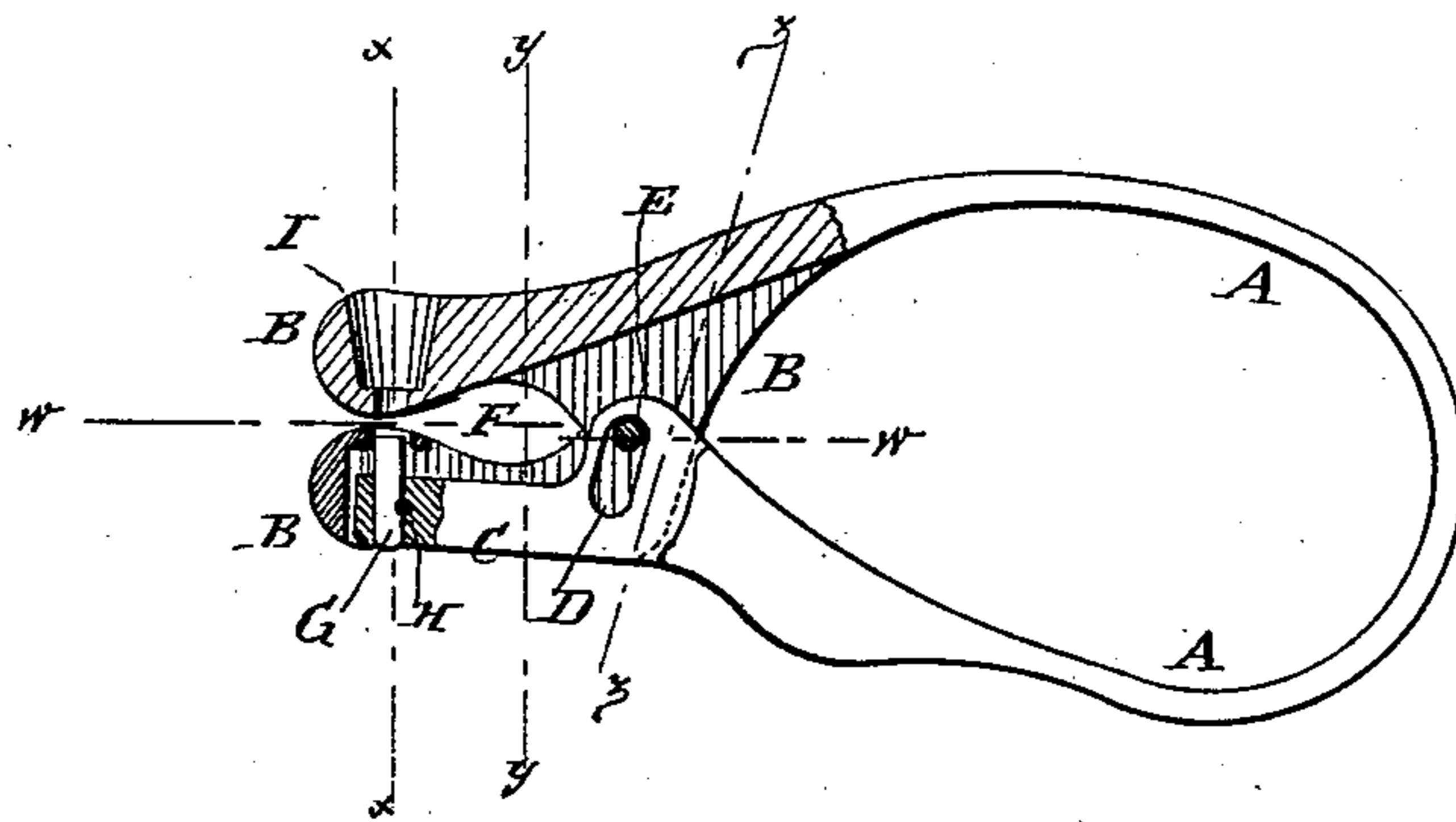


Fig. 3.

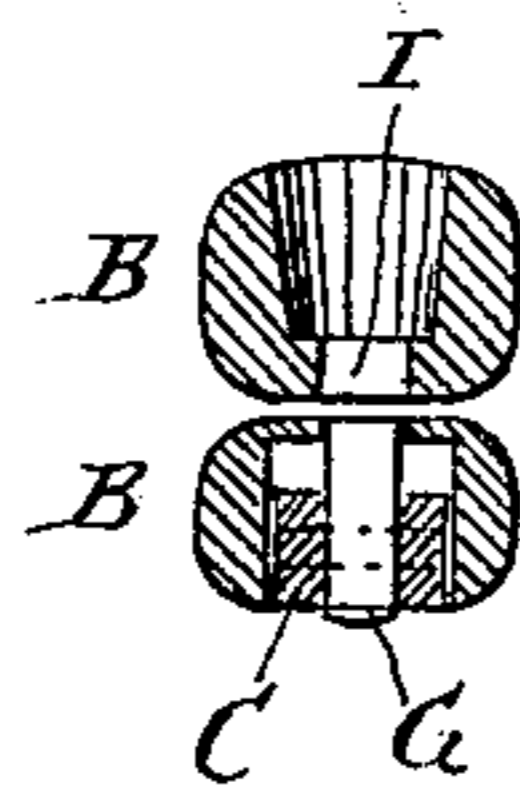


Fig. 4.

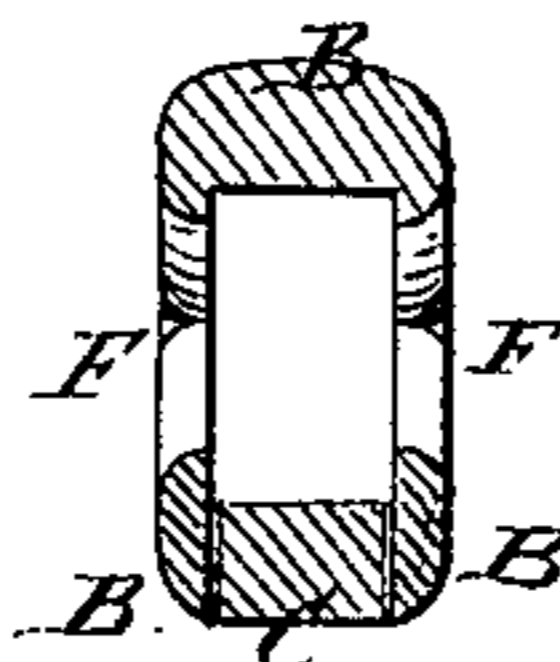


Fig. 5.

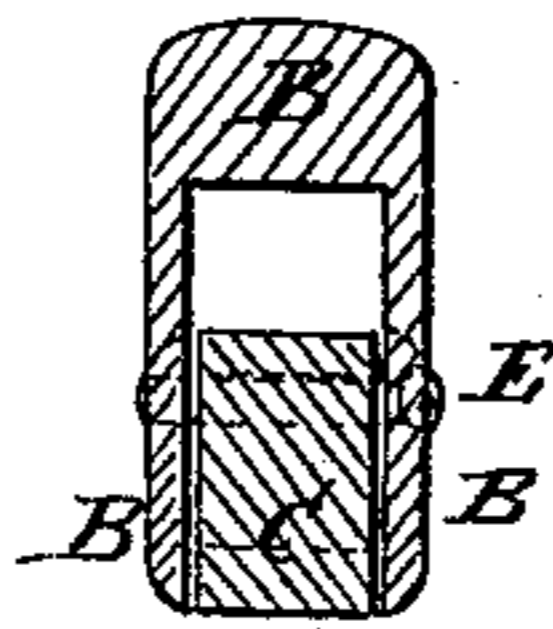
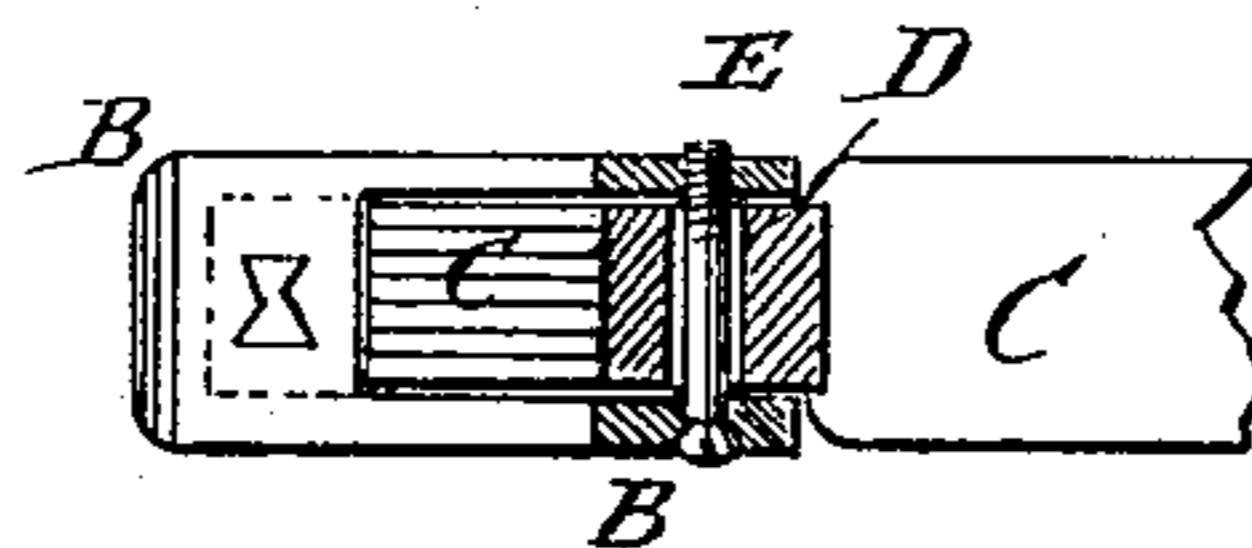


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE A. GUNTHER, OF BATH, AND WILLIAM KOWALSKI, OF BROOKLYN,
NEW YORK.

TICKET-PUNCH.

SPECIFICATION forming part of Letters Patent No. 243,550, dated June 28, 1881.

Application filed February 23, 1881. (No model.)

To all whom it may concern:

Be it known that we, GEORGE A. GUNTHER, of Bath, Kings county, New York, and WILLIAM KOWALSKI, of Brooklyn, Kings county, New York, have invented a new and useful Improvement in Ticket-Punches, of which the following is a specification.

Figure 1 is a side elevation of our improvement. Fig. 2 is a side elevation of the same, partly in section. Fig. 3 is a cross-section of the same taken through the line *x x*, Fig. 2. Fig. 4 is a cross-section of the same taken through the line *y y*, Fig. 2. Fig. 5 is a cross-section of the same taken through the line *z z*, Fig. 2; and Fig. 6 is a longitudinal section of the forward part of the same, taken through the line *w w*, Fig. 2.

Similar letters of reference indicate corresponding parts.

The object of this invention is to simplify and cheapen the construction of ticket-punches and adapt them to be conveniently carried.

The invention consists in constructing a ticket-punch of a curved spring and jaws made in one piece, the upper jaw having a groove to receive the lower jaw, a curved recess to receive the ticket and carrying the female die, and the lower jaw carrying the male die and having a slot to receive the stop-pin that limits the movements of the said jaws, as will be hereinafter fully described.

The body of the punch is made in one piece, consisting of the elastic middle part or spring, A, the recessed and grooved jaw B, and the jaw C. The middle part, A, is curved or bent into oval form to bring the jaws B C together. The jaw B is made deep and is grooved longitudinally upon its lower edge, to receive the jaw C. The inner part of the jaw C is made with an upward projection, which has an elongated hole, D, formed through it, to receive the stop-pin E, which is passed through and attached to the inner part of the grooved jaw B, as shown in Figs. 1, 2, and 6. The stop-pin E limits the movement of the jaws B C, and the slot D in which it works is made of such a length as to give the said jaws sufficient movement to allow the male die to be forced through and withdrawn from the ticket. The jaw B has a curved recess, F, formed in it above the jaw C, to receive the ticket to be punched, and the ends of the prongs thus formed are rounded, as shown in Figs. 1 and

2, so as to present no short corners, and so that the ticket can be readily inserted in the recess F. The recess or slot F is curved, so as to enable the operator to see more exactly the spot or place where the punch is to be inserted in a commutation-card or other article.

To the forward end of the jaw C is attached the male die G, which is secured in place by a key-pin, H, or other suitable means. The forward end of the die G rests in a guide-hole in the upper side of the lower prong of the jaw B, and is made of such a length as to enter the female die I when the jaw C is pressed forward.

The female die I is formed in or attached to the upper prong of the jaw B, and the said prong is recessed above the said die I, to allow the pieces cut from the tickets to escape freely.

With this construction the jaws B C are forced together to make a puncture by pressure applied by the hand of the operator, and are drawn apart by the elasticity of the curved middle part, A, of the punch.

With this construction the punch can be readily carried in the pocket, as it has no sharp corners to cut or wear the said pocket.

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

1. A ticket-punch constructed substantially as herein shown and described, consisting of the curved spring A and the jaws B C, made in one piece, as set forth.

2. In a ticket-punch, the upper jaw, B, made with a curved slot, F, to receive the ticket, a groove to receive the lower jaw and carrying the female die, substantially as herein shown and described.

3. In a ticket-punch, the lower jaw, C, made with a slot, D, to receive the stop-pin E, that limits its movement, and carrying the male die, substantially as herein shown and described.

4. In a ticket-punch, the combination, with the spring-handle A and the jaws B C, of the male die G, the female die I, and the stop-pin E, substantially as herein shown and described.

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Witnesses:

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