

(No Model.)

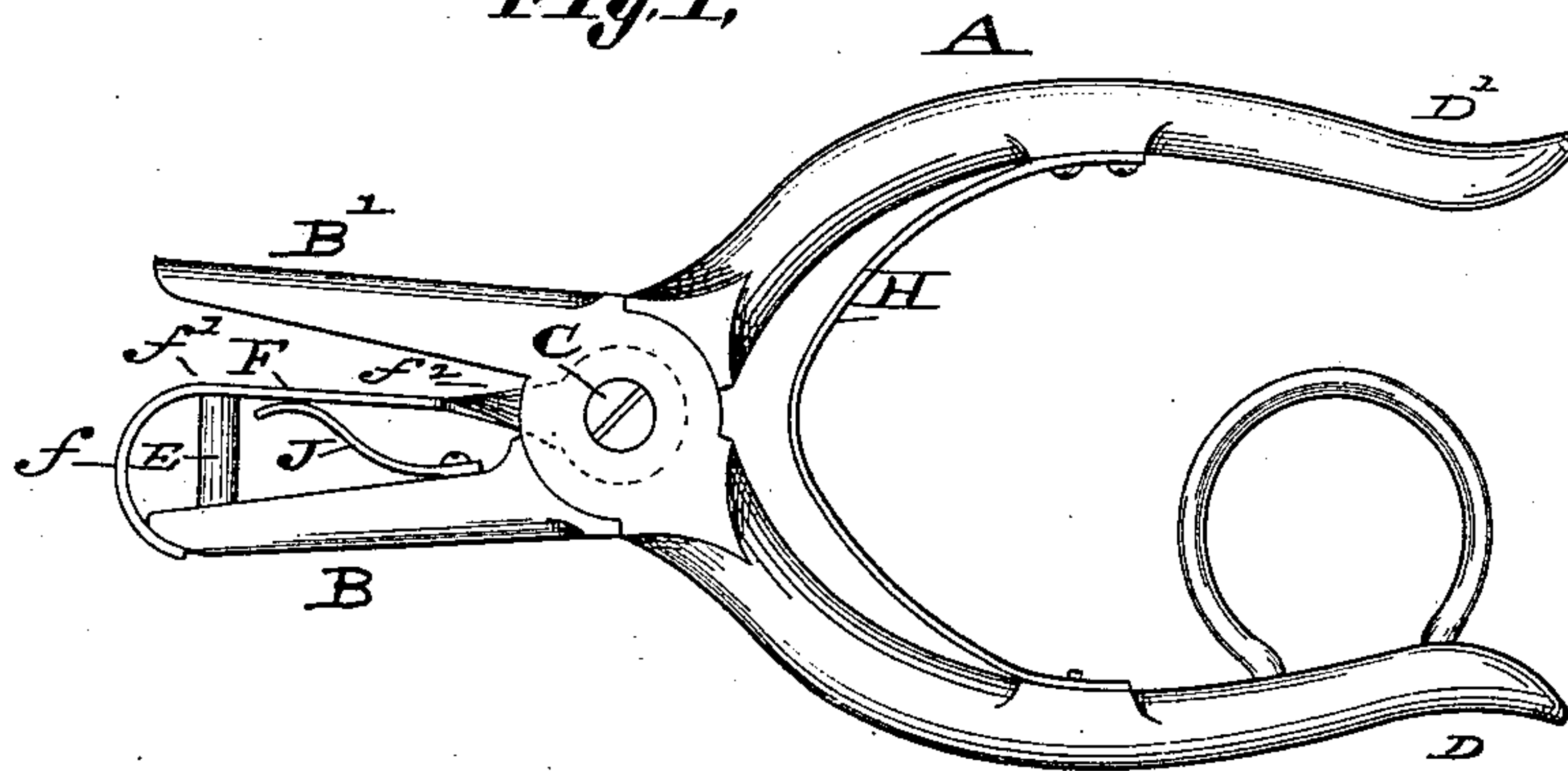
W. H. BONNELL.

TICKET PUNCH.

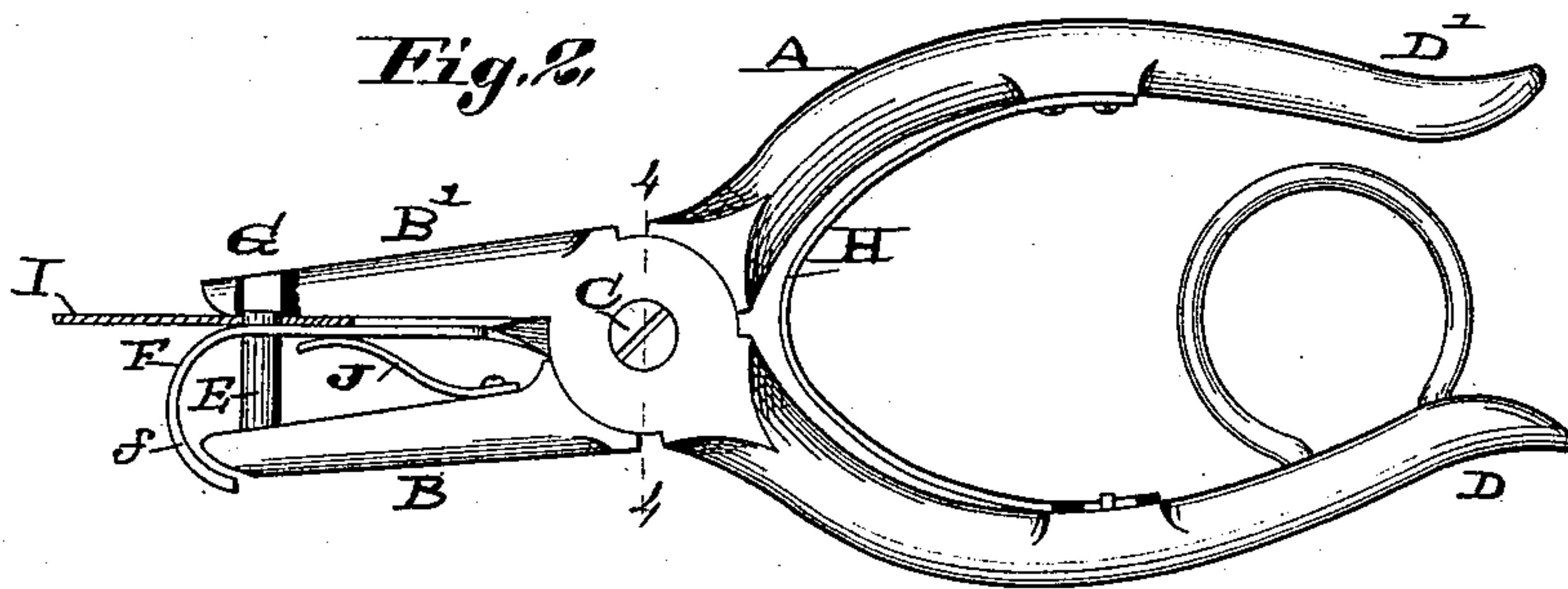
No. 326,389.

Patented Sept. 15, 1885.

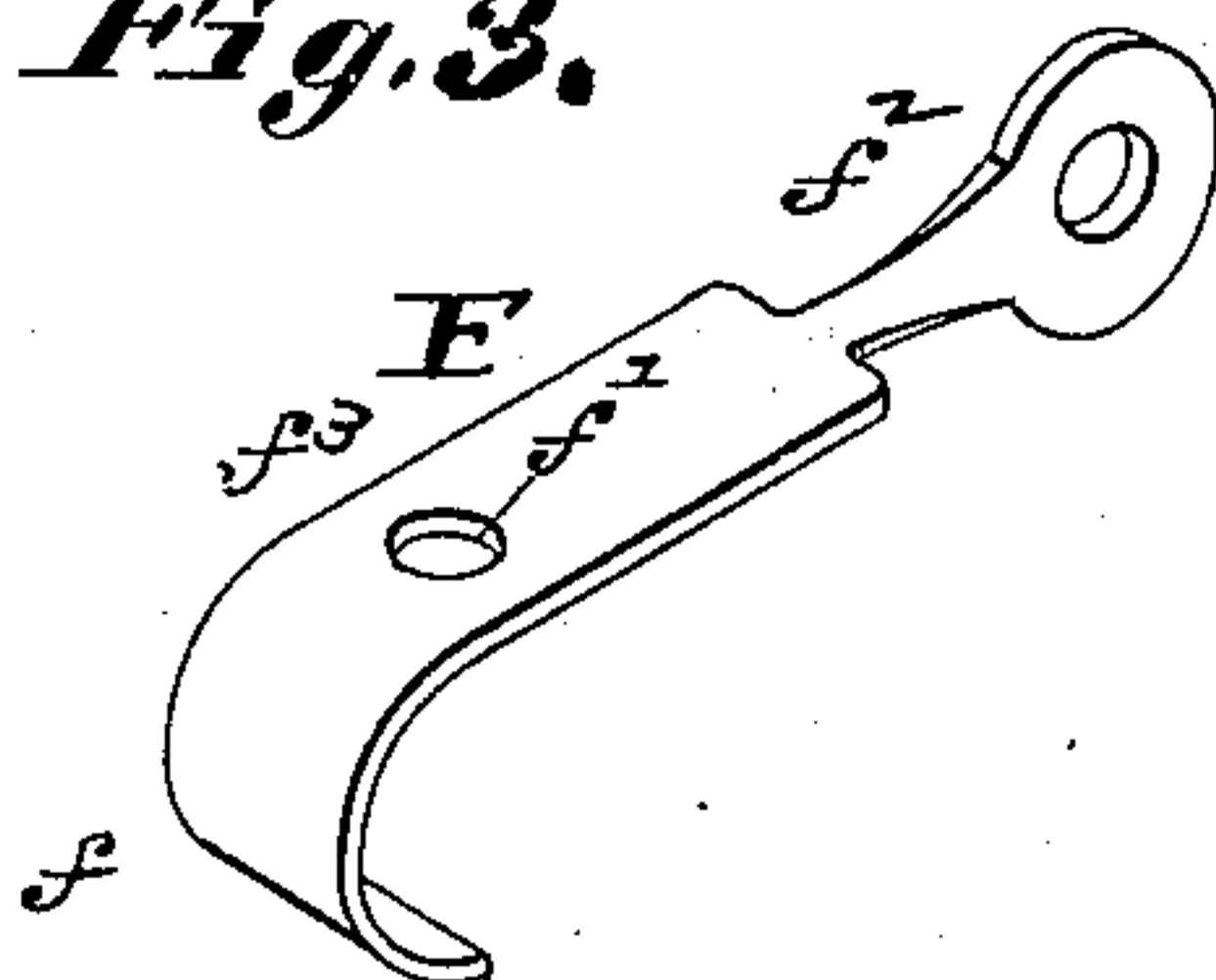
*Fig. 1,*



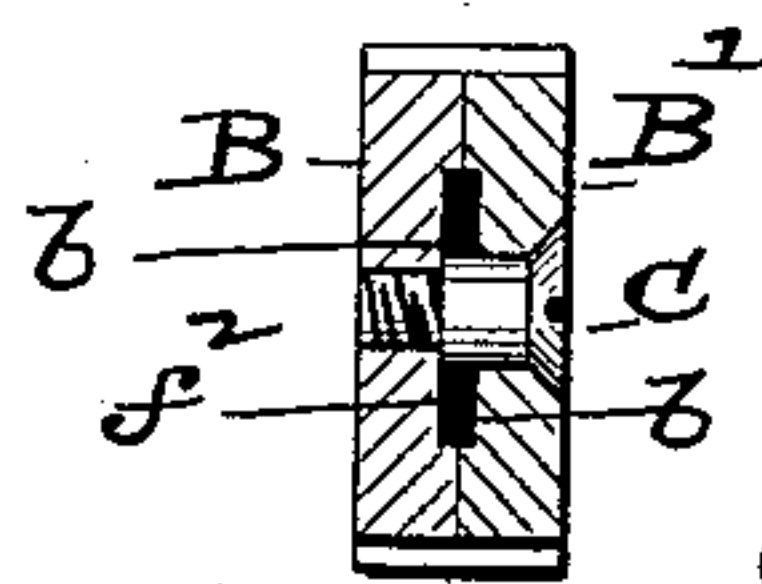
*Fig. 2,*



*Fig. 3,*



*Fig. 4,*



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# UNITED STATES PATENT OFFICE.

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## TICKET-PUNCH.

SPECIFICATION forming part of Letters Patent No. 326,389, dated September 15, 1885.

Application filed April 23, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. BONNELL, of St. Louis, Missouri, have made a new and useful Improvement in Ticket-Punches, of which the following is a full, clear, and exact description.

The improvement relates, mainly, to the throw-plate of the punch, its construction and mode of attachment.

The annexed drawings, making part of this specification, illustrate the most approved form of the improvement.

Figure 1 is a side elevation showing the punch opened. Fig. 2 is a side elevation showing the punch closed. Fig. 3 is a view in perspective of the throw-plate, and Fig. 4 is a section on the line 4 4 of Fig. 2.

The same letters of reference denote the same parts.

The punch A, saving as it is modified by the improvement, is of the customary form.

B B' represent the punch-jaws, which are pivoted together by means of the screw C, and extended to form the handles D D'.

E represents the punch, which is attached to the jaw B, and is adapted to work through the throw-plate F and into the die G, which is preferably formed directly in the jaw B', substantially as represented in Fig. 2.

H represents the spring used to open the punch.

Now, as the throw-plate of a ticket-punch has heretofore been constructed, it has been the practice to terminate the throw-plate and pivot its inner end to the punch at a point not so far back as the pivot upon which the punch-jaws turn. To provide a simpler construction, and one whose parts can be readily separated to obtain a longer opening for the insertion of the ticket, and to provide a throw-plate which shall act to better advantage in discharging the ticket, are the aims of the present construction, in which the throw-plate F, in place of being terminated as above described, is extended backward, and at its inner end is pivoted on the same pivot C, upon which the

punch-jaws B B' turn. The throw-plate at its outer end,  $f$ , curves downward, substantially as shown, to form a suitable guard, and at  $f'$  is perforated to receive the outer end of the punch. The inner end,  $f^2$ , of the throw-plate is turned at right angles to the plane of the main portion  $f^3$  of the throw-plate, and the end terminates in an eye, which, as shown in Fig. 4, encircles the screw C, and the jaws B B', one or both of them, are suitably shaped out at  $b$  to receive the end  $f^2$  between them.

I represents a ticket in position for being punched. As the jaws approach each other the flat spring J yields and the punch passes through the throw-plate and ticket and into the die in the ordinary manner, and when the jaws are released the spring J acts to raise the throw-plate and discharge the ticket.

It will be seen that as compared with the ordinary ticket-punch fewer parts are employed, and when it is required to detach them from each other, something not infrequently needed to be done in ticket-punches, it is only necessary to remove the screw C, whereupon the two jaws and the throw-plate become entirely separated from each other. The throw-plate at its upper end may extend downward far enough, and be shaped to hook under the lower jaw, B, so as to prevent the throw-plate from rising too high.

I claim—

1. The combination, in a ticket-punch, of the throw-plate F, the jaws B B', the spring J, and the pivot C, said throw-plate being pivoted on said pivot C, substantially as described.

2. The combination of the jaws B B', the throw-plate F, the pivot C, the handles D D', the punch E, and the springs H J, said throw-plate being pivoted on the pivot C, substantially as described.

WILLIAM H. BONNELL.

Witnesses:

C. D. MOODY,  
E. B. WEIGLE.