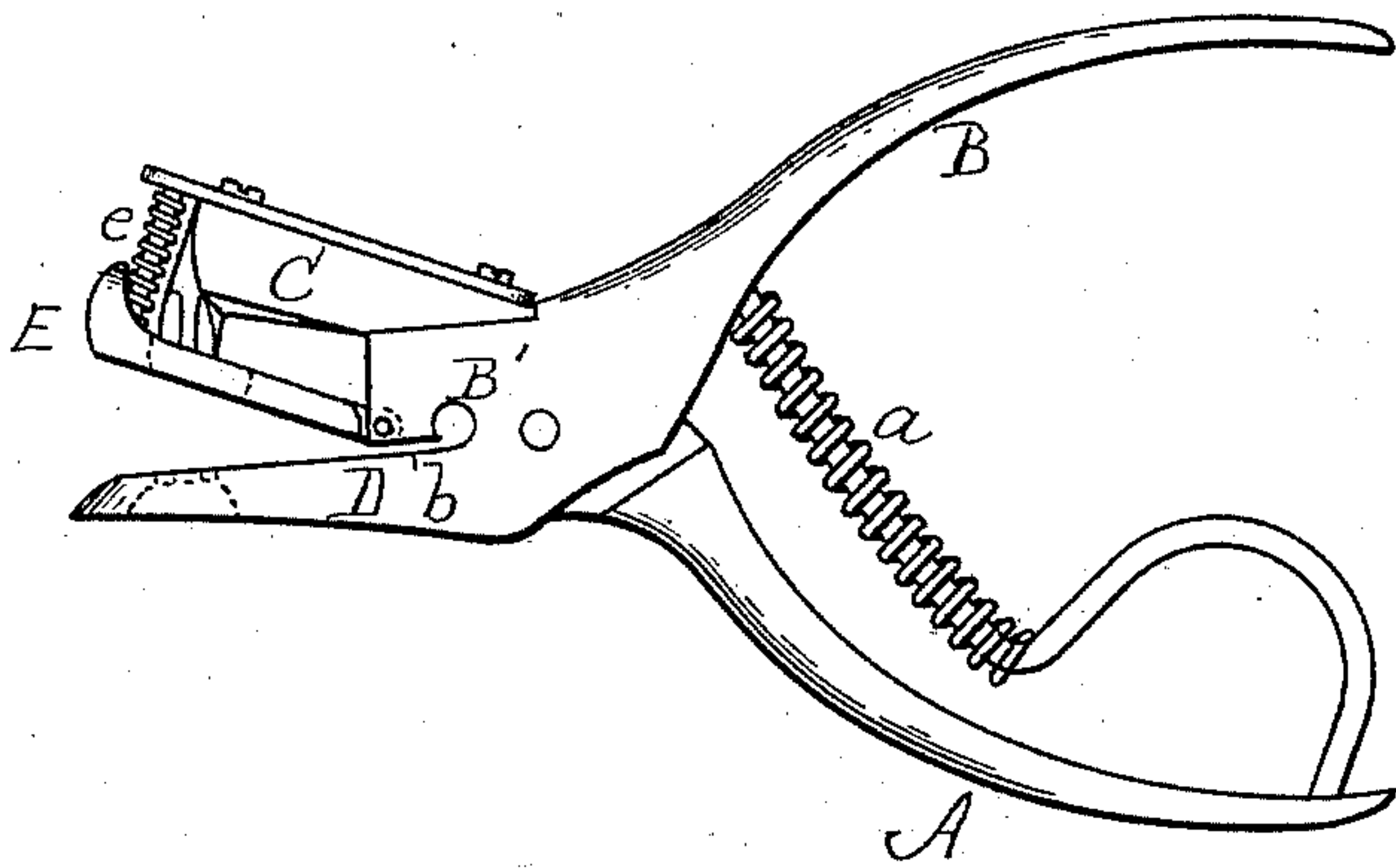


(No Model.)

L. O. CROCKER.
PUNCH.

No. 456,983.

Patented Aug. 4, 1891.



WITNESSES

A. C. Williams.
B. M. Williams

INVENTOR

Luther O. Crocker.
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UNITED STATES PATENT OFFICE.

LUTHER O. CROCKER, OF BRAINTREE, MASSACHUSETTS.

PUNCH.

SPECIFICATION forming part of Letters Patent No. 456,983, dated August 4, 1891.

Application filed April 21, 1891. Serial No. 389,799. (No model.)

To all whom it may concern:

Be it known that I, LUTHER O. CROCKER, of Braintree, in the county of Norfolk and State of Massachusetts, have invented a new and
5 useful Improvement in Punches, of which the following is a specification.

My invention relates particularly to that class of punches which are principally employed by conductors for punching or cutting
10 away passenger-tickets. In the United States Patent granted to me July 18, 1882, No. 261,138, I illustrated and described a slot (lettered *d*) extending inward or rearward beyond the stripper, the object of said slot being to receive
15 the edge of the ticket and hold it steadily in position while it is punched, and also to enable the conductor to punch the ticket at quite a distance from the edge, such distance being greater by the length of the slot than it could
20 be without it. It is found in practice that the edges of the tickets are apt to remain in this slot, so that it becomes clogged in using, and eventually the punch becomes inoperative until the contents of the slot have been dug
25 out and removed. It is the principal object of this improvement to overcome this difficulty.

The nature of the improvement is fully described below, and illustrated in the accompanying drawing, which shows a punch embodying my invention in side elevation.

The handle A, jaws C D, stripper E, and springs *a c*, are constructed substantially as usual, and as illustrated in the patent above referred to. B is the other handle provided
35 with the slot *b* above referred to, and described in said patent. At the inner or rear end of this slot I chamber out an opening B', extending through the punch and connecting with the slot *b*. This opening is much greater

in diameter than the width of the slot, and is
40 preferably circular in shape, as shown. When the edge of a ticket breaks or tears off, as is frequently the case, it drops into this chamber and falls out, either instantly or as the punch is manipulated, instead of clogging up
45 the slot *b*. Moreover, the chamber forms an extension to the slot, so that a ticket can be punched at a much greater distance from the edge, as the ticket may not only extend to the inner end of the chamber B', but can curl up
50 inside, thus considerably adding to the reach of the jaws.

Among the minor advantages of the improvement are the facilities afforded by the chamber for oiling and the additional spring
55 provided, whereby any inequality or inaccuracy in the jaws can be counteracted.

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

In a punch of the character described, the combination, with the jaw A and the operating-spring, of the handle and jaw B D, provided at the rear end of the main wide opening which lies between the jaws and at the
65 rear of the dies with the lateral slot *b*, extending inwardly from said opening beyond the inner end of the stripper, and the supplemental chamber B', located at the inner end of said slot and connecting therewith, said
70 chamber being much greater in diameter than the width of the slot, substantially as and for the purpose set forth.

LUTHER O. CROCKER.

Witnesses:

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