

(No Model.)

W. C. DOWNING.
TICKET PUNCH.

No. 477,107.

Patented June 14, 1892.

Fig. 1.

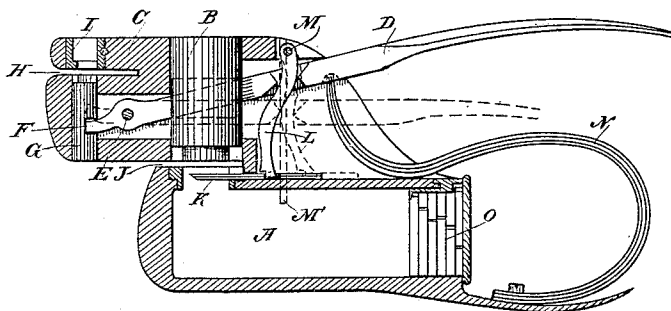
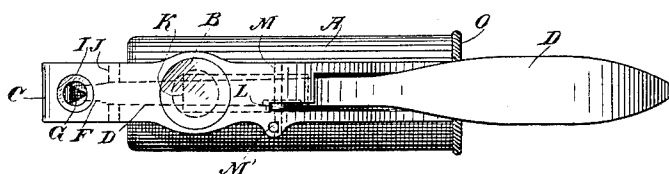


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM C. DOWNING, OF SAN FRANCISCO, CALIFORNIA.

TICKET-PUNCH.

SPECIFICATION forming part of Letters Patent No. 477,107, dated June 14, 1892.

Application filed February 26, 1892. Serial No. 422,933. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. DOWNING, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Ticket-Punches; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in ticket-punches; and it consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 shows the interior parts of my punch. Fig. 2 is a plan view of my punch. The object of my invention is to provide a punch with convenient mechanical operating mechanism and a means for providing a check and register of the fares taken by the preservation of marked clippings from the tickets which are punched.

A is a hollow casing or receiver having an opening in the upper side with a rim or die, which serves, in conjunction with the punch B, to cut out a portion of the ticket when the latter is presented beneath the punch and the punch pressed downward upon it. The punch B has a shank extending upwardly and guided within a correspondingly-shaped opening in the frame C, which is cast with the receiver A, and upon its upper side a slotted opening is made through the upper part of the shank of the punch, and the lever-arm D passes through this opening. This lever-arm is fulcrumed at E, and has an end F projecting beyond the fulcrum, this end engaging a second punch G, which reciprocates within a corresponding guide-opening in the outer end of the casing C. A horizontal slot H is made in the upper part of this end of the casing above the punch G when it is in its normal position, and a die I is fixed in the casing above the slot. This punch is intended to punch the tickets that have been received and upon which it is necessary to place an indicating-mark. The punch may be of any desired shape, and the clippings which are punched out of the ticket at this point are not retained.

Between the punch B and the top of the case A is a slot J, into which the tickets are introduced when the punch B is to be used.

K is a slide moving horizontally in a proper guiding-channel just below the upper edge of the die, through which the punch B operates.

L is a cam-shaped arm, the upper end of which is fulcrumed in the case C, as shown at M. This cam-shaped arm passes through a slot made vertically through the lever D, and its lower end engages the plate K, as shown. When the lever D is pressed down, the side of the slot engages the lever L and draws it back, moving with it the sliding plate K, so that when the punch has reached the die and commences to cut out the portion of the ticket beneath it the slide will have been withdrawn sufficiently to allow the clipping to fall into the receiver A. When the punch again rises, the lever D acts upon the cam-lever L, and through it upon the slide K, moving the latter forward, so as to cover the opening into the receiver and prevent any portion of the contents of the receiver being surreptitiously removed.

N is a spring fixed to a handle or extension of the lower part of the case A, curving upwardly and acting against the lever D, so as to return it to its normal position after it has been forced down to actuate the punch.

O is a lock of any suitable description by which the end of the case A is closed. It may be a combination tumbler-lock or any other suitable closure which cannot be tampered with. The combination being known at the office only, the contents of the case can only be removed when the punch has been turned into the office at the end of the run.

This punch is especially useful upon main-line steam-roads having a number of stations to which different fares are charged. When a fare is collected, the folded ticket (not shown) is introduced into the slot J and the amount of the fare printed upon the edge of the ticket is punched out. As two sections are punched, one from each part of the ticket, both fall into the receiver. The ticket is then withdrawn and the two parts of the ticket separated, one being given to the passenger

as a hat-check, which shows at once the amount collected, while the other is retained by the conductor.

In the present case I have shown the punch 5 as being cylindrical and of large diameter, so that the amount punched out will be easily noticed by any one looking at the passenger's hat-check, and a detective can easily see at a glance to what station the passenger is entitled to go. If he goes beyond that station, 10 the case can be reported to the general office.

In order to prevent the removal of the punch B to obtain access to the interior of the receiver A, the lever D passes through the punch-shank and the cam-bar L passes through the 15 lever D behind the punch. The fulcrum-pin M of the arm L has a transverse slot in one side, and a pin M' passes through this slot at right angles with M, thus locking it in place. 20 The pin M' has a head or fastening-pin, within the receiver, and can only be removed when the receiver has been opened.

Having thus described my invention, what I claim as new, and desire to secure by Letters 25 Patent, is—

1. In a ticket-punch, the receiver having an opening and die in the upper part, a punch adapted to reciprocate in a guide above the opening, a slot extending transversely above 30 the opening in the receiver, through which a ticket may be introduced, and a slide movable across said opening, in combination with a second punch operating in a direction the reverse of the first-named punch, a ticket-slot 35 to the second punch on a different plane from that of the ticket-slot to the first-named punch, a lever D, engaging both punches, and a cam-lever L, engaging the slide and actuated by the movement of the lever D, whereby the 40 slide is withdrawn when the first-named punch is depressed to allow the part punched out of

the ticket to fall into the receiver and is restored to its normal position to close the opening when the punch is retracted, substantially as herein described. 45

2. In a ticket-punch, the receiver having a die and opening upon the top, a punch reciprocating in a guide above and in line with said opening, a slot through which the edge of the ticket may be introduced between the 50 punch and the die, and a second punch adapted to reciprocate in the outer end of the frame, with corresponding die and ticket-slot, in combination with the lever passing through the first-named punch and fulcrumed in the 55 frame, said lever having an extension upon the opposite side of its fulcrum engaging the second-named punch, whereby the two are actuated simultaneously by the same lever, substantially as herein described. 60

3. In a ticket-punch, a receiver having an opening and a die upon the upper side, a punch reciprocating in a guide above and in line with said opening, a transverse slot above the die for the introduction of a ticket, a reciprocating slide, by which the opening is closed 65 when the punch is raised and retracted when the punch is depressed, a lever D, passing through a slot in the punch-shank, and a cam-arm L, by which the slide is actuated, passing 70 through a slot in the lever D, and a pin M', forming a transverse key to lock the fulcrum-pin of the arm L in place and prevent the removal of any of the parts, substantially as herein described. 75

In witness whereof I have hereunto set my hand.

WILLIAM C. DOWNING.

Witnesses:

S. H. NOURSE,
J. A. BAYLESS.