

A. D. HOFFMAN.
REGISTERING TICKET PUNCH.

No. 111,345.

Patented Jan. 31, 1871.

Fig. I.

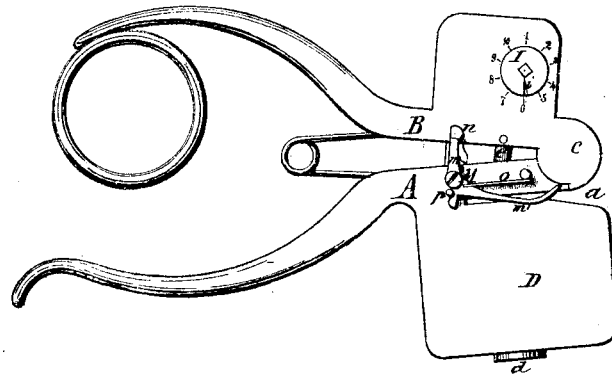


Fig. II.

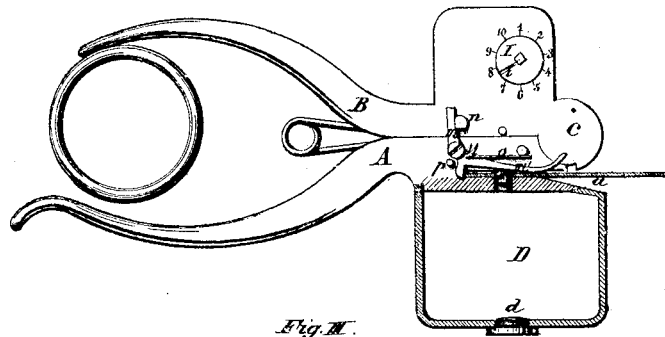


Fig. III.



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AUSTIN D. HOFFMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO JAMES H. SMALL, OF BUFFALO, N. Y.

Letters Patent No. 111,345, dated January 31, 1871.

IMPROVEMENT IN REGISTERING TICKET-PUNCHES.

The Schedule referred to in these Letters Patent and making part of the same.

I, AUSTIN D. HOFFMAN, of the city of Chicago, in the county of Cook and State of Illinois, assignor to JAMES H. SMALL, of the city of Buffalo, State of New York, have invented certain Improvements in Registering Ticket-Punches, of which the following is a specification.

The present invention relates to an improved punch designed for railroad-conductors, patented by me February 22, 1870, in which a registering device is arranged so as to be actuated every time the jaws of the punch are opened and closed. As the conductor is charged with the number of fares indicated by the register, and as the latter is moved a degree each time the jaws are actuated whether a ticket be perforated or not, some device for preventing the accidental closing of the jaws has been found to be necessary in order to protect the conductor from being held liable for a greater number of fares than he has actually received.

My invention, which is intended to remedy this defect, consists in arranging in the mouth of the punch in which the tickets are to be inserted a spring-stop or lever, so connected with the jaws or handles of the punch as to prevent the former from closing except when released by the insertion of a ticket, which causes a displacement of the stop.

In the accompanying drawing—

Figure I is a side view of my improved instrument.

Figure II is a similar view, with the box for the clippings shown in section.

Figure III is an end elevation.

Like letters designate like parts in each of the figures.

A B represent the two jaws of the punch, jointed together at their ends, at *c*, with a slot or mouth, *a*, formed in the jaw A for the insertion of the ticket.

D is the box for the cuttings, attached to or formed with the jaw A so as to receive the same as they are punched from the ticket by the punch-rod *e* attached to the jaw B, and fitting and working in a hole formed in the jaw A.

The registering mechanism is constructed and arranged in a case in the opposite jaw B, and operated as shown and described in my said Letters Patent hereinbefore referred to.

I represents a disk or wheel attached to the end of the arbors of the registering device, in place of the usual hand or pointer, which requires for its protection an outer covering of glass. This disk is countersunk flush with the face of the case inclosing the registering mechanism, and revolves with the arbor on which it is mounted.

A radial line, *i*, or other suitable device, is engraved or otherwise marked in the face of the disk, to perform the office of the hand or pointer usually employed.

The disk, by fitting in the countersink, leaves no projecting parts, and consequently requires no outer covering to protect it, while its plane disk-form renders it durable, and not liable to be broken or displaced, as is the case when the ordinary index or pointer is employed.

To prevent the jaws becoming accidentally closed and the registering device operated, I provide a stop, M, consisting of a bent lever pivoted to the face of the jaw A, with one arm, *m*, projecting across the slot *a*, and abutting against a stop-pin, *n*, projecting from the face of the jaw B, so as to prevent, while in this position, the jaws closing, as shown in Fig. I.

The other arm, *m'*, of this lever extends in line of the slot *a*, with its end curved, as shown, so that the insertion of a ticket in the slot will force the arm to one side, thereby disengaging the arm *m* from the pin *n*, and permitting the jaws to close, as shown in Fig. II.

To return and retain the arm *m* in proper position to engage with the pin *n* I employ a spring, *o*, the reaction of which, when the jaws are partially opened, returns the arm to its first position, when its further movement is arrested by a stop-pin, *p*, arranged for the purpose as represented.

I do not wish to confine myself to the particular construction or arrangement of the parts, as just described, for preventing the closing of the jaws, as the manner of connecting the arm or lever which obstructs the mouth or slot *a* with the jaw B, and the manner of stopping the latter, may be varied and still perform the same function of stopping the jaw B in substantially the same manner, the essential feature of this part of my invention being an arm or lever arranged so as to obstruct the mouth *a*, and so connected with the opposite jaw, either directly or by means of intermediate parts, as to prevent it from closing until released by the ticket displacing the arm from the slot which it obstructs.

What I claim as my invention is—

1. An arm or lever, arranged so as to obstruct the mouth of a punch, and at the same time connect, either directly or by means of intermediate mechanism, with the opposite jaw, so as to stop it from closing except when the said arm or lever, by being displaced from the mouth by the insertion of a ticket, disengages the stop, substantially as and for the purpose hereinbefore set forth.

2. The combination and arrangement, with the jaws A B and mouth *a*, of a ticket-punch, of the spring-lever stop M, and pin or shoulder *n*, substantially as and for the purpose hereinbefore set forth.

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Witnesses:

G. L. CHAPIN,
D. HARRY HAMMER.