

J. TREGURTHA.
Railway Ticket-Cutters.

No. 147,295.

Patented Feb. 10, 1874.

Fig. 1.

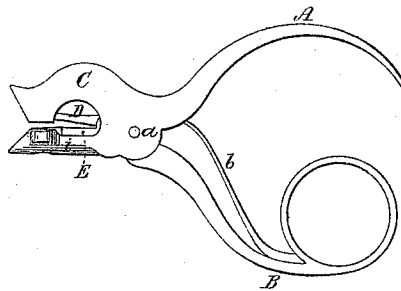


Fig. 2.

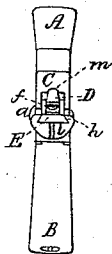


Fig. 3.

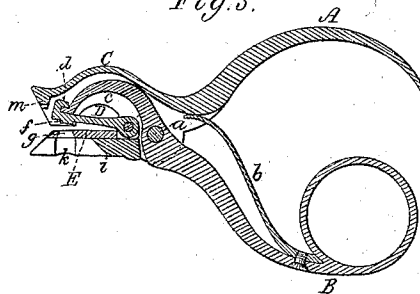


Fig. 5.



Fig. 4.



Witnesses
S. N. Piper.
L. N. Miller.

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by his attorney.
R. H. Sney

UNITED STATES PATENT OFFICE.

JAMES TREGURTHA, OF CHARLESTOWN, ASSIGNOR TO JOHN C. RAND, OF
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IMPROVEMENT IN RAILWAY-TICKET CUTTERS.

Specification forming part of Letters Patent No. **147,295**, dated February 10, 1874; application filed
January 22, 1874.

To all whom it may concern:

Be it known that I, JAMES TREGURTHA, of Charlestown, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Railway-Ticket Cutters; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, Fig. 2 a front-end view, and Fig. 3 a longitudinal section, of one of my improved ticket-cutters. Fig. 4 is a side view, and Fig. 5 a front-end view, of its separable pivoted die-carriers.

My invention relates to a combination of separable male and female die-carriers hinged together, with two levers pivoted together; also, to the combination of a recessed arm with the said two levers, the recess of the arm being protective of the shorter arm of one of the levers, and a means, also, of preventing the pivoted die-carriers from accidentally falling out of place between the lesser arms of the levers.

In the drawings, the two crossed levers are represented at A and B, formed and arranged as shown, and pivoted together at *a*, there being a spring, *b*, fixed to one of the arms of the lever B, such spring being made to bear at or near its free end against the longer arm of the lever A. There projects from the lever A an auxiliary arm, C, arranged with the lesser arm *i* of such lever, and recessed or made hollow to receive the lesser or primary arm *c* of the lever B, in manner as represented. The two separable die-carriers, shown at D E, are hinged together at their ends. The upper one is furnished with a hook, *d*, at its front end, to take upon or receive the outer end of the arm *c*. Furthermore, the male die *f* projects down from the carrier D and operates with the female die *g*, which is an orifice made down through the inferior die-carrier E. The lower die-carrier is dovetailed in transverse section, to slide into a corresponding dovetailed groove, *h*, made in the lesser arm *i* of the lever A, which arm may also be slitted longitudinally, so as to spring upon the lower die-carrier, and thus aid in holding it in place. It also has a discharge-orifice, *k*, made through it, for the piece of card separated by the dies from a ticket to escape through.

It is only when the dies or their carriers are closed together that they can be removed from the crossed levers, all of which may be effected by closing the dies upon a ticket or card, and while they are in such state pulling upon the card, so as to extract the dies and their carriers from the levers. While the carriers are within the levers and the dies not closed together, the portion or part *m* of the recess of the auxiliary arm, by extending down in front of the upper die-carrier, will operate as a shoulder to maintain the carriers in place, or in connection with the levers.

By "separable" die-carriers, I mean separable relatively to the two levers; the object of combining the dies with such carriers applicable to the levers, as explained, being to save the necessity of throwing away the levers when a die may be broken, or become useless, as would be the case on breakage or wearing out of a die when the female die is made in one of the levers, and the male die fixed to or projected directly from the other of them. Furthermore, my construction of the levers and die-carriers admits of the ready removal of the latter, and substitution of others of like nature with different-shaped dies—a matter of much importance to railroad officials. Other advantages also result from my improvement.

What I claim as my invention in the railway-ticket punch or cutter may be stated as follows, viz:

1. The combination of the separable male and female die-carriers D E, hinged together, as described, with the two levers A B arranged and pivoted together, substantially as explained.

2. The recessed arm C, as provided with the shoulder *m* at the front of its recess or lever-arm chamber, such shoulder being to operate with the upper die-carrier, in manner as specified.

3. The die-carriers D E, provided with the male and female dies *f g* and the hook *d*, and arranged and hinged together, substantially as set forth.

JAMES TREGURTHA.

Witnesses:

R. H. EDDY,
J. R. SNOW.