

UNITED STATES PATENT OFFICE.

HENRY D. RODGERS, OF NEW YORK, N. Y.

IMPROVEMENT IN FARE-REGISTERS.

Specification forming part of Letters Patent No. **196,389**, dated October 23, 1877; application filed August 27, 1877.

To all whom it may concern:

Be it known that I, HENRY D. RODGERS, of the city, county, and State of New York, have invented a new and Improved Fare-Register, of which the following is a specification:

Figure 1 is a side elevation of my improved fare-register, having the cover removed to show internal parts. Fig. 2 is a vertical section on line *x x* in Fig. 1. Fig. 3 is a horizontal section on line *y y* in Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved instrument for registering car-fares, to be carried and operated by conductors on railway-cars.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

Referring to the drawing, A is a circular case, having the perforated hemispherical cavity B formed in its back for receiving the bell C. D is a follower that works through an aperture in the upper side of the case A, and through the guide E, that projects from the back of the case below the bell-cavity.

The follower D is provided with a thumb-piece, *a*, at its upper end, and with a coil-spring, *b*, for throwing it up after it is depressed by the thumb or finger. The lower end of the follower is bored to receive a needle, *c*, which is clamped by a screw, *d*. Below the follower a right-angled plate, F, having a slot, *e*, is secured to the back of the case A by the screw *f*, which passes through the said slot. There is a perforation, *g*, in the plate F, through which the needle *c* passes in making its downward stroke.

Above the plate F there is a notched spring, *h*, between which and the said plate the strip of paper passes from one spool or drum to the other.

G is a spool, which turns on a stud, *i*, that projects from the back of the case. The said spool contains a coil, *k*, of paper, which passes between the spring *h* and plate F, and is received by a spool, H, placed on the opposite side of the follower on a stud, *l*. The spring *h* exerts sufficient pressure on the paper to

prevent it from passing too rapidly over the plate F.

The spool H is provided with a ratchet, I, which is operated by a spring-pawl, *m*, carried by the follower D. This spring-pawl is elongated and curved, so that when the spool H has been turned a sufficient distance to move the paper strip for a single fare it will be disengaged from the ratchet by striking the projection *n* on the plate F, so that the paper is at rest when punctured by the needle.

The ratchet is prevented from retrograde movement by a fixed spring-pawl, *o*, attached to the side of the case A.

To the post *p*, to which the bell C is secured, an arm, *q*, is attached, to which a lever, *r*, is pivoted, which carries the hammer *s*. The outer end of this lever carries a latch, *t*, which is engaged by a pin, *u*, projecting from the follower D, at every downward stroke of the said follower.

A coil-spring, *v*, is attached to the back of the arm *q*, and serves the double purpose of returning the latch and the hammer to their normal position after being moved by the downward stroke of the follower.

The spaces between the figures representing different fares are graduated, so that as the spool H becomes more full, and the paper is in consequence drawn with greater rapidity from the spool G, the figures may be uniformly brought under the needle.

The sums represented by the paper coil advance in arithmetical progression, so that the last number punctured represents the total of fares taken.

The case A is provided with a cover, K, which is secured at one side by a lug-pin, and at the other by a combination-lock, L. A loop or handle, M, is jointed to the upper part of the case.

The ratchet I and pawls *m o* may be placed in a compartment formed in the back of the case, and the ratchet connected with the spool H by means of a spindle. This arrangement would render it impossible to tamper with the mechanism, even with the cover removed.

Having thus fully described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination of the spool G, carrying the paper coil *k*, the spool H, having the ratchet I, follower D, carrying the needle *c*, the pawl *m*, and the adjustable plate F, substantially as shown and described.

2. A strip of paper having printed upon it

characters or sets of characters separated by distances gradually increasing in the direction of the length of the strip, substantially as and for the purpose shown and described.

HENRY D. RODGERS.

Witnesses:

GEO. M. HOPKINS,
ALEX. F. ROBERTS.