P. SEŸL.

FARE-REGISTER.

No. 190,912. Patented May 15, 1877.

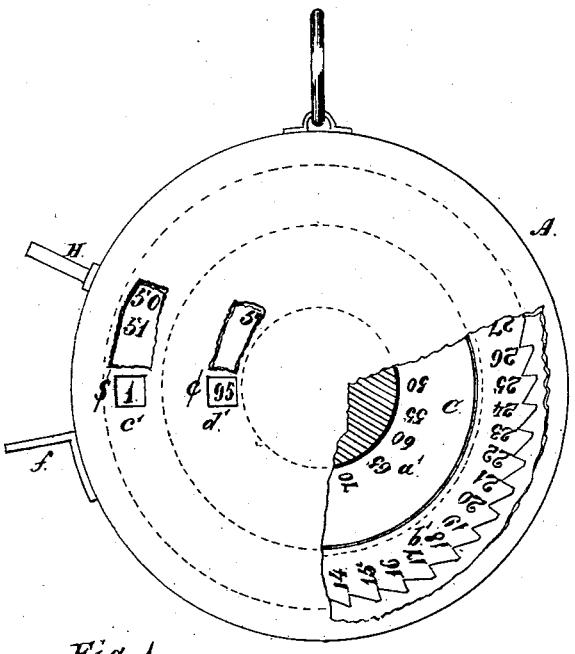

Fig. 1.

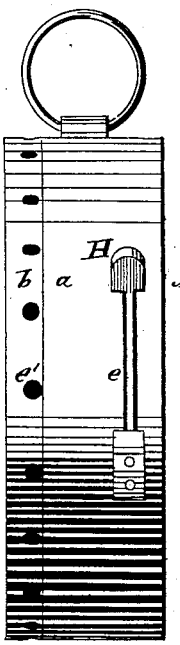

Fig. 2.

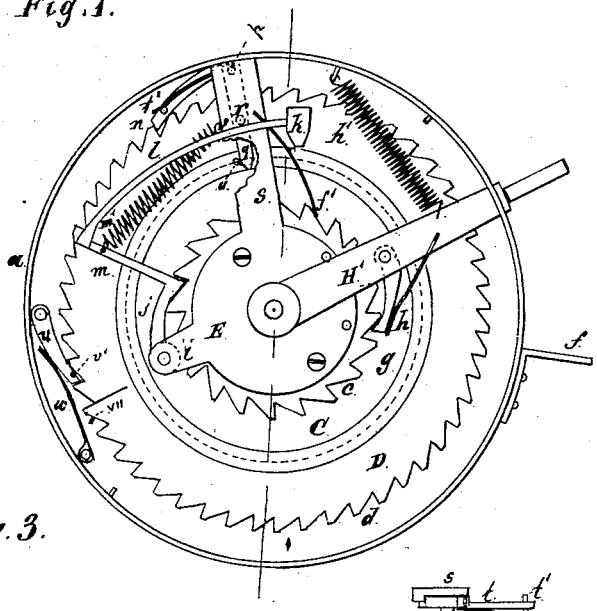

Fig. 3.

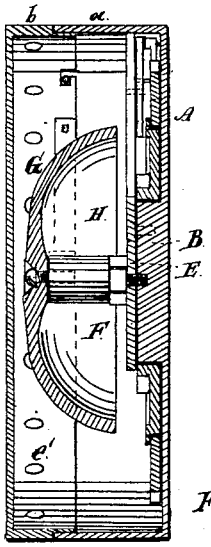

Fig. 4.

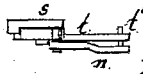

Fig. 5.

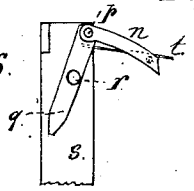

Fig. 6.

Witnesses:

Heinrich L. Brems.

Inventor.

Peter Seÿl.

UNITED STATES PATENT OFFICE.

PETER SEYL, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO J. CHARLES HAINES, OF SAME PLACE.

IMPROVEMENT IN FARE-REGISTERS.

Specification forming part of Letters Patent No. **190,912**, dated May 15, 1877; application filed January 17, 1877.

To all whom it may concern:

Be it known that I, PETER SEYL, of the city of Chicago, Cook county, State of Illinois, have invented new and useful Improvements in Fare-Registers, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation with portions of the case broken away; Fig. 2, a side elevation; Fig. 3, a view of the interior, the cover of the case and the bell being removed; Fig. 4, a section at *x*, Fig. 3, the bell and cover being in place.

This invention relates to that class of fare-registers primarily designed to be used by conductors on street-cars; and its nature consists in two rotating ratchet-disks, each provided with a series of figures, the disks being arranged one outside of the other, and so as to rotate at different intervals and in opposite directions, one of which operates the bell and indicates the number or amount of single fares collected either during a partial or full rotation, the other indicating the number of rotations of the first disk, or the amount of fares collected during any given number of rotations of such first disk, both disks being operated by a single lever; in connecting the hammer which strikes the bell with an arm that is operated by one of the disks, to prevent striking of the bell unless the disk is moved a given distance; in a spring so arranged as to engage with the teeth in the striking-disk, and prevent the striking of the bell by a partial movement; in devices for operating the two disks by a single lever; in a locking device which prevents the backward movement of the larger disk, and in a locking device which prevents farther movement of the larger disk after it has made one complete revolution.

In the drawings, A represents a case consisting of two parts—the body *a* and the cover *b*.

B is a projection upon the inside of the body of the case.

C is a disk fitting over and rotating upon the projection B. *c* is a series of ratchet-teeth secured to the plate or disk C.

D is a second disk fitting over and rotating around the first disk C. *d* are ratchet-teeth upon the disk D.

E is a plate secured to B, overlapping the plate upon which are the ratchet-teeth *c*, and keeping such plate and the disk C in place.

As shown, there is a lip extending from the disk C, overlapping the edge of D, and keeping it in place.

F is a post secured to the projection B, upon the top of which is located the bell G.

H is a lever, one end of which is pivoted upon the lower end of the post F, and the other end projects through a slot, *e*, in the side of the case. *e'* are holes in the case.

f is a thumb-piece, to be used when operating the lever.

g is a pawl pivoted to the lever A.

h is a spring to hold the pawl *g* in place.

h' is a spring to return the lever H.

i is a projection from the plate E.

j is an arm pivoted to *i*.

k is the hammer.

l is the rod connected to the hammer.

m is a bar or arm, one end of which is connected to the arm or hook *j*, and to the other end the rod *l* is secured. The arm *j* and bar *m* are made of a single piece.

m' is the spring which operates the hammer.

n is a pawl, pivoted at *p* to the lever *q*, which is pivoted at *r* to the under side of the bar *s*.

t is a spring. One end is permanently secured near the upper end of the lever *q*; the other end rests loosely upon a pin, *t'*, in the outer end of the pawl *n*.

u is a pin secured near the edge of the disk C, and arranged to engage with the lower end of the lever *q*.

v is a pawl engaging with one of the teeth *d*.

v^1 is a notch in the end of this pawl *v*.

v^2 is a projection upon one of the teeth *d*.

w is a spring to hold the pawl *v* in place.

a' is a series of numbers upon the disk C, which numbers increase by arithmetical progression, the difference being a single fare.

b' is another series of similar numbers upon the disk D, the difference being 1. These numbers are so arranged that they can be seen through openings in the case.

c' is an opening through which the numbers on D can be seen.

d' is a similar opening, through which the numbers on C can be seen.

Between the first and last number upon each disk is a blank space.

As represented, the numbers upon the disk D indicate dollars, and those upon the disk C cents, and the numbers are arranged to indicate the collection of each five-cent fare.

In use the two disks C D are to be so arranged that the blanks will be opposite the openings c' d'. Then, when the conductor collects the first fare, if he operates the lever H, the disk C will be partially rotated, and far enough to bring the figure 5 to the opening d'. When the next fare is collected, by operating the lever, the figure 10 will be brought before such opening, and so on until the complete revolution of the disk is made. At the same time, with each operation of the lever, one of the teeth c will lift the arm j and when the tooth leaves the arm the hammer will strike the bell.

At the same time that the disk C makes a complete revolution the pin u will come in contact with the lower end of the lever q, thereby operating the ratchet n, and carrying the disk D forward one notch, bringing the figure 1 into view at the opening c', and bringing the blank space on C into view at the opening d', such figure 1 indicating that fares to the amount of one dollar had then been collected.

Such operation may be repeated until the disk D makes a complete revolution, the amount of the fares collected being indicated by the figures at the openings c' d'. The recoil of the spring t returns the pawl n.

The pawl v prevents any backward movement of the disk D from the outside.

When the disk D has made a complete revolution the notch v^1 will engage with the projection v^2, preventing further movement until the case has been opened and readjusted.

The bell cannot be rung by a slight movement of the lever; but it might possibly be struck by less than a full movement of the lever H, if there were no guard against this.

To prevent such false striking, I have provided the spring f', so arranged that if the lever H be moved a little way this spring will engage directly with one of the ratchet-teeth, and not permit sufficient recoil to strike the bell.

The two parts of the case may be secured together by means of bayonet-catches and a lock, or in other suitable manner.

What I claim as new, and desire to secure by Letters Patent, is as follows:

1. The stop v, provided with a notch, v^1, in combination with the ratchet-disk D, and projection v^2 on one of the teeth d, substantially as and for the purpose described.

2. In a fare-register, the combination, with the case A, of the operating-lever H, the ratchet-disks C D, rotating in opposite directions, the hammer k, actuated by the ratchet-disk C, arm q, with pawl n, and the stop v, all constructed and arranged to operate substantially as and for the purposes herein set forth.

PETER SEYL.

Witnesses:
O. W. BOND,
H. F. BRUNS.