J. Kurz,

Register.

No. 111,918. Patented Feb. 21, 1871.

Fig 1

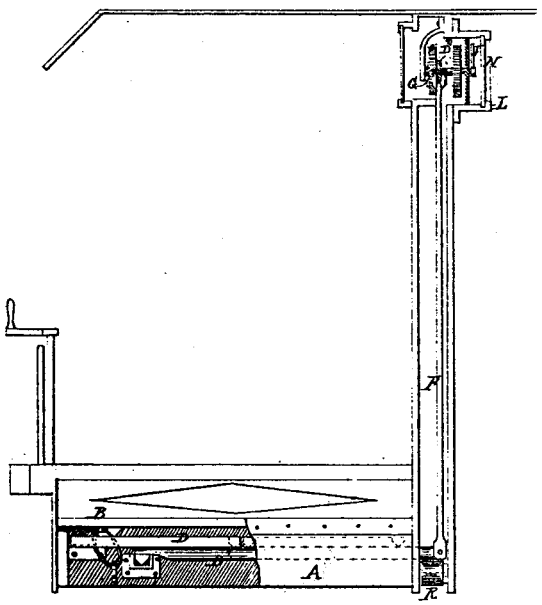

Fig 4

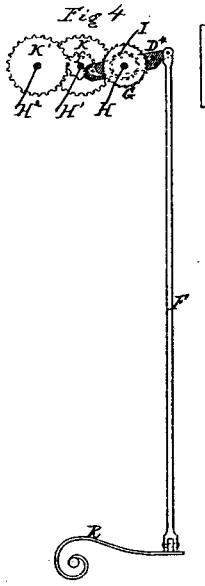

Fig 5

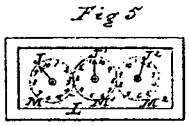

Fig 2

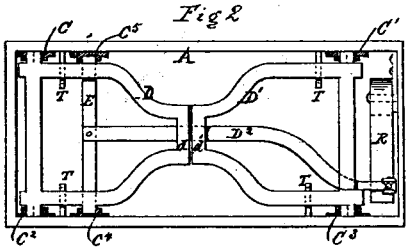

Fig 6

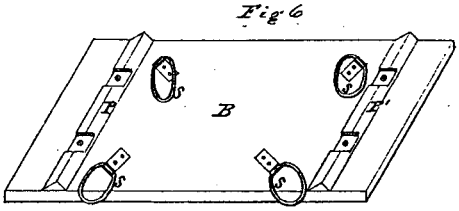

Fig 3

Witnesses.

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JOHN KURZ, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 111,948, dated February 21, 1871.

IMPROVEMENT IN PASSENGER-REGISTERS FOR CARS.

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

To all whom it may concern:

Be it known that I, JOHN KURZ, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Passenger-Registers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

The object of my invention is to provide a simple mechanism to be applied to a city passenger railway-car, for registering the number of passengers who may enter the car at different points on the route of travel, and thus preventing fraud on the part of the employees.

Figure 1 is a side elevation of a platform and a portion of the end of a car, showing my invention applied.

Figure 2 is a plan view of the mechanism placed underneath each of the steps of the platform.

Figure 3 is a sectional view of a portion of the same.

Figure 4 is a front view of the gearing, lever rod, and spring, forming a part of the apparatus.

Figure 5 is a view of the dial-faces and hands connected therewith.

Figure 6 is a perspective view of the under side of one of the plates forming threshold.

To enable those skilled in the art to make and use my invention, I will now proceed to describe it.

The steps leading to the platform of the car are each composed of a hollow sill, A, and a deflecting plate, B, made of cast or wrought-iron.

Placed in the said sill, and supported on the knife-edge bearings in the brackets C, C^1, C^2, and C^3, are two yoke-shaped levers, D and D^1, fig. 2, the inner ends, *d* and *d'*, of which rest on a lever, D^2, placed immediately beneath.

One end of this lever is attached to a cross-bar, E, which serves as a fulcrum, and is also supported on knife-edge bearings in the brackets C^4 and C^5, secured to the inner sides of the sill A, and the opposite end of the said lever has a rod, F, attached to it, which extends up and is connected to a lever, D^3, provided with a pawl and ratchet-wheel, G.

The shaft H, fig. 4, on which the ratchet-wheel G is placed, is provided with a pinion, I, and a hand or pointer, J, and on a line with it are placed two additional shafts H^1 and H^2.

The shaft H^1, bearing on it a spur-wheel, K, which gears with the pinion I, and the shaft H^2 is provided with a spur-wheel, K', which gears with a pinion, I', on the shaft H^1.

Both of these shafts are furnished with hands or pointers J and J', and all this portion of the apparatus is inclosed in a box, L, placed in any convenient position on the car.

The front part of the box L is made with three dial faces, M, M^1, and M^2, fig. 5, one being intended for each shaft, and are marked for unit, tens, and hundreds, the gearing being regulated so as to cause a partial rotation of the hand or pointer when the plate B is depressed. The dials are covered with a glass, N, through which they may be observed.

The plate B has secured or formed on the under side of it two cross-bars, P and P, the lower edges of which are made V-shaped, and rest on the upper portion of the levers D and D^1.

Placed underneath one end of the lever D^2 is a spring, R, which forces this end of the lever up after it has been depressed (and pressure removed) to its former position.

The plate B is held in position on the sill A by means of rings S S secured on the under side of it, which engage with hooks T T attached to the inside of the sill.

The gearing is so regulated that the pressure of the foot of a person entering the car on the deflecting plate B will cause the hand or pointer to move half way between two adjacent figures, and the person is not registsred as one until they step off the car, which causes the hand or pointer to move the other half the distance and to register for one, thus causing two movements of the hand or pointer before a person is fully registered.

Having thus described my invention, its construction and operation,

What I claim, and desire to secure by Letters Patent, is—

1. The arrangement of the levers D, D^1, and D^2, brackets C, C^1, C^2, C^3, C^4, and C^5, and spring R, in combination with the hollow sill A and deflecting plate B, substantially in the manner and for the purpose specified.

2. In combination with the above, the rod F, lever D^3, pawl-and-ratchet-wheel G, shafts H, H^1, and H^2, with their gearing and dials M, M^1, and M^2, all arranged and operating in the manner and for the purpose set forth.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN KURZ.

Witnesses:

ISAAC R. OAKFORD,

GEO. E. NICHOLS.