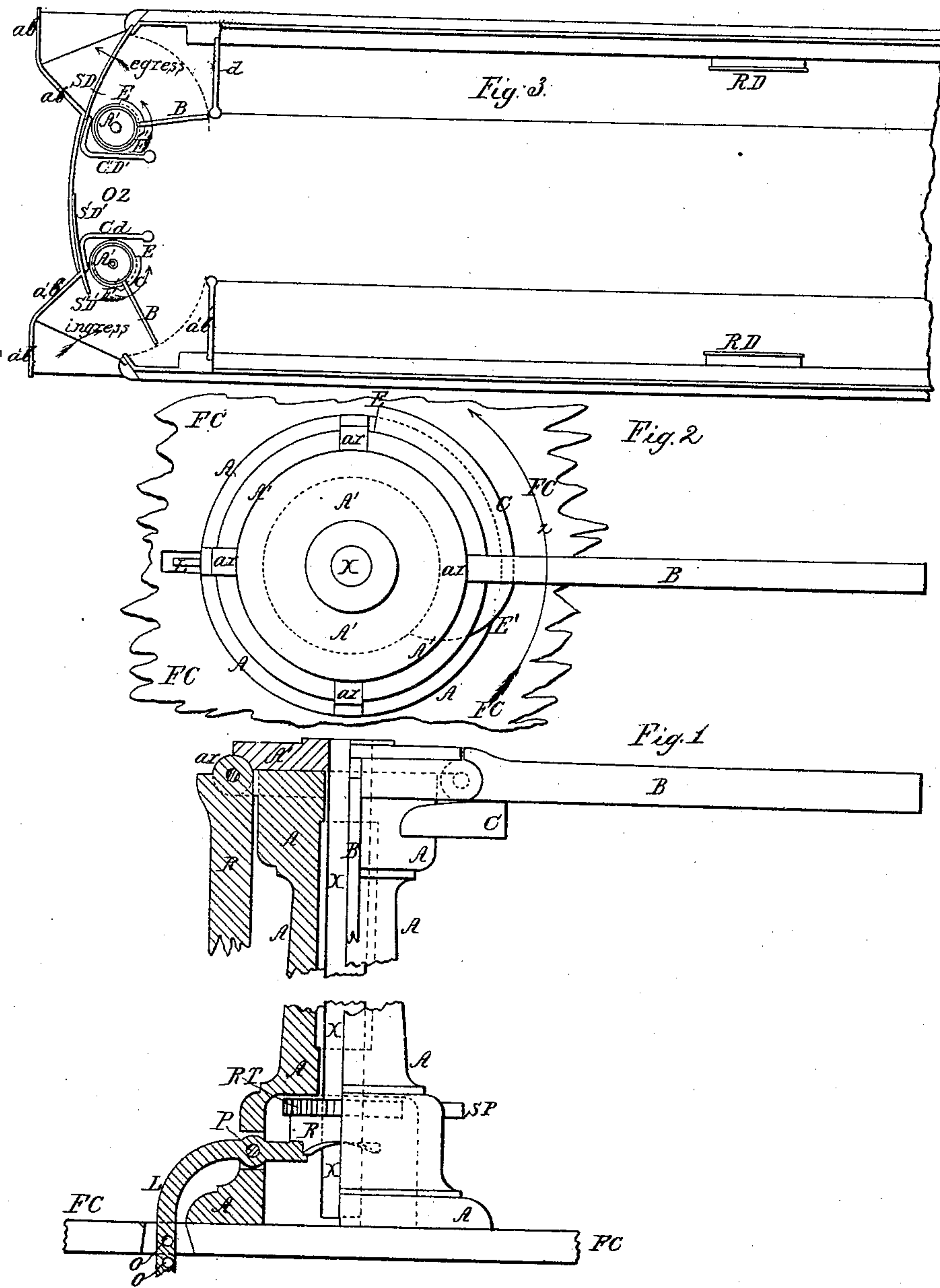


P. S. GERHART.
REGISTER FOR RAILROAD CARS.

No. 79,339.

Patented June 30, 1868.



Witnesses
Loup & Spinning
H. C. Bowden

Taming

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United States Patent Office.

P. S. GERHART. OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 79,339, dated June 30, 1868.

IMPROVEMENT IN REGISTERS FOR RAILROAD-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, P. S. GERHART, of the city of Philadelphia, in the county of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Registering-Apparatus for Railroad-Cars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 shows an elevation of my registering-apparatus, with part sectioned, so as to show the inside of the same.

Figure 2 is a plan or top view of fig. 1.

Figure 3 shows a plane section of a car with my apparatus applied.

The nature of my invention consists in providing railroad-cars with a certain apparatus, by means of which the number of persons walking into said car will be registered, without any interference on the part of the conductor or driver.

To enable others skilled in the art to make and use my invention, I will now describe its construction and operation.

A is the wooden main work or body of my apparatus. It is shaped somewhat like an upright quarter-deck capstan, and has arms, B, (four, or more or less, in number,) but which, instead of being loose, are, on the contrary, fastened to the head A' of A by means of articulated joints *a r*, fig. 1.

Head A' is a piece entirely separate from A, and is set on and fastened to a metallic tree, X, inserted into A, and of a length few inches shorter than said A.

Towards the foot or lower end of A is cut an inside chamber, allowing room for a circular ratchet, R T, secured on X, fig. 1. A spring, (metallic,) S P, catches on said ratchet, and allows it to run but one way.

Just under R T, on X, is set a circular ring or washer, R, fast on to X, and bearing on its under face a series of tapering lugs, C T, the number of said lugs to be determined by circumstances.

L is a lever, having its fulcrum in P, fig. 1, with its upper end long enough to catch between the lugs on R. Said lever, bent or straight, to suit purposes, is run clear through the floor of the car, where the wire or string coming under said car from the dials R D is attached to L in any of holes O.

The tapering lugs C T, on R, must have all the same tapering direction, so that they will alternately act on L in a regular manner, as hereinafter shown.

C is a circular rib, secured on to A just under head A'. The length of piece C must be such that it will be about one-third longer than the distance between two consecutive joints *a r*, and it must be set on to A so that one of its ends, E, will clear one joint, *a r*, and the other end, E', pass over the following joint, *a r*. Again, end E is left square, while end E' is made round, and smoothed on all its angles, the top surface also tapering from *a r* towards E', and end E' must always run or be set in the direction contrary to that in which the apparatus is to be rotated, (in this case the direction of the arrows in red ink, figs. 1 and 3.)

The peculiar position of C on A will produce the following effect, viz, that one of the arms B will have to rest on said piece C, one at a time, while the other will hang loose down along the sides of A, fig. 1.

A glance at fig. 2 will show that if we act on arm B as a lever, and thus rotate A', no sooner will B reach E than it (B) will fall, and the following arm, B, meeting the tapering and rounded end, E', of C, will be forced up horizontally, and thus occupy the position held before by the arm, on which we have been acting to rotate A'.

The cars, which my apparatus constructed as above described are to be applied to, should be constructed and built in the manner, or the like, as shown in fig. 3, *a b a' b' c d c' d'*, with circular door, sliding in and out, S D and S' D', with double sets of steps and platforms, upright partitions *c d* and *c' d'*, forming a space, *o z*, where the conductor would sit, thence watching the streets as well through windows, *ad hoc*.

Now, into each of the outside corners formed by partitions S D and *c d* and S' D' and *c' d'*, I place one of my apparatus, securing A firmly to the floor of the car, and running lever L clear through said floor, for the aforesaid purpose.

The exact position to place A on the car will always be determined by piece C, which must stand in relation with the doorway that; at all times, there will be one of the arms standing on C, horizontally right across the doorway on both sides of the car, fig. 3, doorway S' D' being the ingress and S D the egress.

If a passenger comes up the steps and wishes to walk in the car, he will have to push against bar or arm B. This will rotate head A', and consequently X. Lugs C T will act on lever L, which, acting itself on the wire of dial R D, will make on said dial the mark for one person in.

Meanwhile, as soon as arm B reaches and clears end E of C, it drops, while the following arm (that behind the entering passenger) will now stand horizontal, and across the doorway, as did the one on which the passenger has had to act to be admitted.

In order to get out, a passenger will have to act on the apparatus of egress-door as he has on the one in ingress-door, so that by means of the two dials, one controlling the other, it will be equally easy to know the number of passengers admitted in as well as that of those let out.

I do not describe any particular shape of dials or registers, as I propose to use, in connection with my above-described machines, any of the dials already invented, and which may suit my purpose.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The combination of a turnstile, with pending arms, with any car or other vehicle, the whole constructed, arranged, and operated in the manner as and for the purpose above set forth and described.

P. S. GERHART.

Witnesses:

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