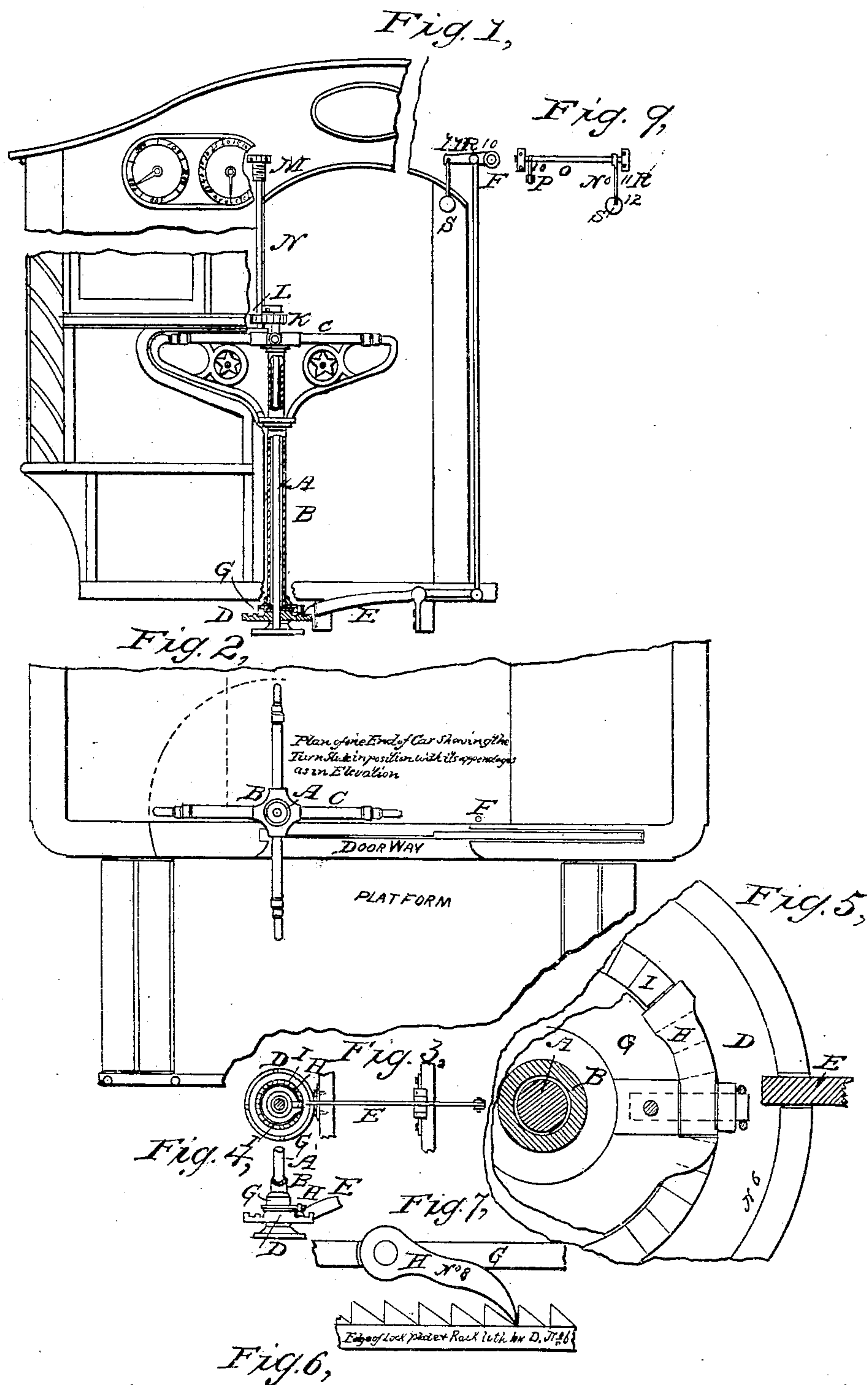


CROMELIEN & CRISP.
Omnibus and Car Register.

No. 38,655.

Patented May 26, 1863.



Witnesses:
John L. Fay,
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UNITED STATES PATENT OFFICE.

ROWLAND CROMELIEN AND WILLIAM R. CRISP, OF WASHINGTON,
DISTRICT OF COLUMBIA.

IMPROVEMENT IN OMNIBUS AND CAR REGISTERS.

Specification forming part of Letters Patent No. 38,655, dated May 26, 1863.

To all whom it may concern:

Be it known that we, ROWLAND CROMELIEN and WILLIAM R. CRISP, of the city of Washington, in the District of Columbia, have jointly invented a new and useful improved machine, the title of which is to be known as a perfect and complete "Instantaneous Detective Indicator," acting as a tally-turnstile toll-gate for receiving fare, to be used on railroad-cars, as also in theaters, circuses, places of public exhibition, gates at ferries where boats are employed crossing waters, fair-grounds, race-courses, foot-passengers going over bridges, public dining-places and hotels, wheel-vehicles and carriages where entrance-charges are made, and at the polls of elections to count the voters on passing to deposit their tickets; and we do hereby, severally and jointly, declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

A represents center shaft of indicator, No. 1; B, hollow shaft revolving on center shaft, A, to which are attached four or more arms, C, Nos. 1 and 2; C, by which the turnstile is revolved, permitting ingress to the interior of the car, &c., No. 1; D, a lock-plate fast to the center shaft, A, and arranged with notches on edge, the latch E, Nos. 1, 3, and 4; E, falling into the notches on a person passing in, Nos. 1, 3, and 4; F F, a rod connecting with latch E to lift latch out of notch, permitting the indicator to revolve the latch E, descending a plane on edge of lock-plate, falls into next notch, Nos. 1 and 2; G, a circular plate on lower end of hollow shaft B, carrying on its outer edge a pawl, H, Nos. 1, 3, and 4; H, falling into rack-teeth T, Nos. 3 and 4; I, on lock-plate D, permitting the free use of the turnstile on exit from car, &c., Nos. 3 and 4; K, pinion on head of center shaft, A, driving the pinion L; L, on vertical shaft N, carrying the endless screw M, No. 1; M, operating on the wheel-work of the indexes, No. 1.

In further reference for explanation, No. 5, G, is to show the plan of circular plate on lower end of the hollow shaft to full size. No. 6, letter D, shows the lock-plate attached to the center shaft to full size; No. 7, letter G, shows the edge of circular plate G, with pawl,

No. 8, at full size; Nos. 6 and 6 show the edge of rack-teeth and edge of inclined plane and lock-notches to full size, as in Nos. 1, 3, and 4.

To enable those who are skilled in the art and wish to use our improvement, we will proceed to describe our invention, it being a machine for the use and purposes as hereinafter described, consisting of an upright shaft in the center of a hollow shaft, to which are attached four cross-arms. The purpose and use of it is to indicate instantaneously, with correct exactness, the number of persons entering railroad-cars, theaters in their different tiers, circuses, places of public exhibition, gates at ferries where boats are employed crossing waters, fair-grounds, race-courses, foot-passengers going over bridges, public dining places and hotels, wheel-vehicles and carriages, and wherever fare and entrance charges are made, and to count the votes of elections, and to more minutely describe the formation of the machine, of its mechanical parts of construction, in its combinations and parts as numbered and lettered as in reference, and fully describing its operation in the drawings—No. 1 being an elevation of end of the car, showing the turnstile in place; No. 2, a plan of one end and platform of the car, showing the position of the turnstile at the entrance of the car. Nos. 3 and 4 refer to the plan and elevation of the machinery attached to the turnstile under the floor of the car, to be operated on by the revolution of the turnstile on being used for ingress or exit.

The operation is as follows: One of the arms always being in place to prevent ingress until the conductor or attendant receives the fare to pass in the next, which is done by the attendant or conductor by his hand or foot on a lever for the purpose of unlocking the turnstile-gate. The turnstile, on each person entering, making one-quarter revolution, locks itself again, preventing further egress until the operation is repeated to permit the next to enter, and so on. From the head of center shaft a pinion is attached, which gives motion to a vertical shaft, the upper end of which carries an endless screw or worm acting on a bevel-tooth spur-wheel, the spur-wheel, by pinion and continued gearing and wheel-work of the usual kind of clock-work,

carrying index-hands placed in front of the dial-plate, divided into tens and hundreds, or more, to notify the inspector the number of persons or passengers that have passed through the turnstile-gate in any given time.

For the exit or going out of any cars, or other places where such machine is used, the arms, being fast to the hollow shaft, revolve at liberty without affecting the center shaft, the machine not indicating when so used for passing out. On the lower end of the hollow shaft is attached and fastened a circular plate, having a pawl or catch on its outer edge, this pawl falling into a series of circular rack-teeth that are attached to the main center indicative lock-plate, which remains fast and undisturbed by persons passing out, the said lock-plate being fastened to the main center shaft, which, by the aid of the pawl and rack, prevents its being used for ingress, except at the will of the conductor or attendant.

The machinery attached to the turnstile-gate can be placed to work at the bottom of the car, top, or side by simply using increased gearing, working, or connecting rods, and the same principle applies to all other places wherever such is to be used, as has been fully described, not using this new improvement whatever on the platform, and disclaiming anything of clock-work, windlass-turnstile, gearing, and machinery, excepting such parts as are applicable to this invention, and of old machinery for the use and purposes of this indicator, for the various places in which it can be used; and, further, to prevent the parties in charge of the machine or car, a pawl is attached to the step on which the lock-plate works, the lock-plate having four stops on the under side that at each quarter-revolution prevents it from being returned or worked back, thereby preventing the reducing of the actual registered number on the dials or counters; and, furthermore, to protect the parties in charge of the cars during absence, a stop is provided to secure the machinery from being moved forward, secured by a pad or other

lock, thereby protecting the conductor or others from being liable to account for more money than the actual fare received. The guard part outside is to prevent persons from interfering with the turnstile, and the machinery under the car or elsewhere is inclosed in an iron-cased box, preventing it in any way from being injured or interfered with.

This machine can be placed at either end of the car, or center, and we recommend all new cars building to make the entrance of the car in the center of the length on each side of the car, instead of, as at present used, that of platforms, by which means increased room for passengers would be gained, and with greater comfort and free circulation of air, by inclosing at half-circle or square the whole frame by the body of the car to the present end of the platform, which prevents the great crowds at each end and its annoyance of passengers going in and out, and would stop the speculations, while the driver might sit on the top, front, or side, and a lad at the other end to watch for passengers at crossings—now often delayed or lost; and the conductor by such—he being inside—would always be protected by shelter, thus making this, in its general connection, an improved car, with an instantaneous detective indicator.

We claim as follows, as new for the operation of this purpose:

1. The hollow shaft B, No. 1, to carry arms of turnstile, in combination with lock-plate D, Nos. 1, 3, 4, and the latch E, Nos. 1, 3, 4, and connecting-rod F, Nos. 1 and 2, thereby preventing its use only at the will of the party in charge.

2. The arrangement of the turnstile in the interior of the car without injuring the appearance or destroying any part of the same.

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Witnesses:

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