

**F. W. BROOKS.**  
**PASSENGER REGISTER AND RECORDER.**  
 No. 175,656. Patented April 4, 1876.

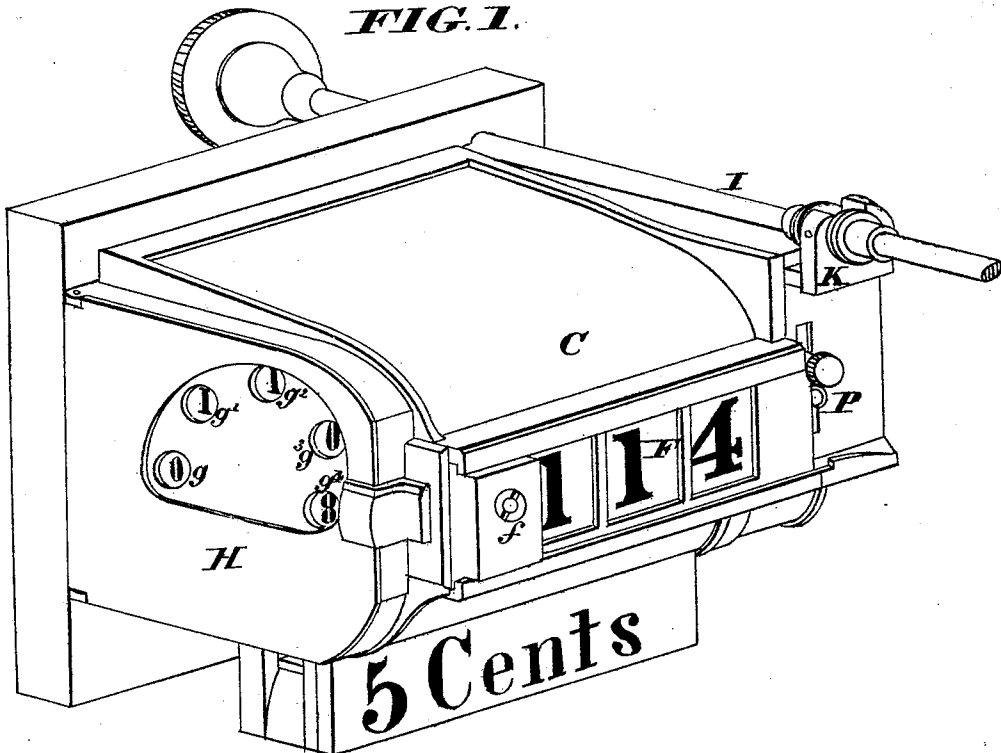
**FIG. 9.**

|                |        |            |  |
|----------------|--------|------------|--|
| DATE.....187   | CASH   | Trips Up   |  |
| CONDUCTOR..... | \$ cts | Trips Down |  |
| TIME.....      |        |            |  |

**FIG. 10.**

|                |        |            |                       |       |           |
|----------------|--------|------------|-----------------------|-------|-----------|
| DATE.....187   | CASH   | Trips Up   | NUMBER OF 5 CENT FARE | No OF | INDICATOR |
| CONDUCTOR..... | \$ cts | Trips Down | 1 1 4                 | 1     |           |
| TIME.....      |        |            |                       |       |           |

**FIG. 1.**



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FIG 2

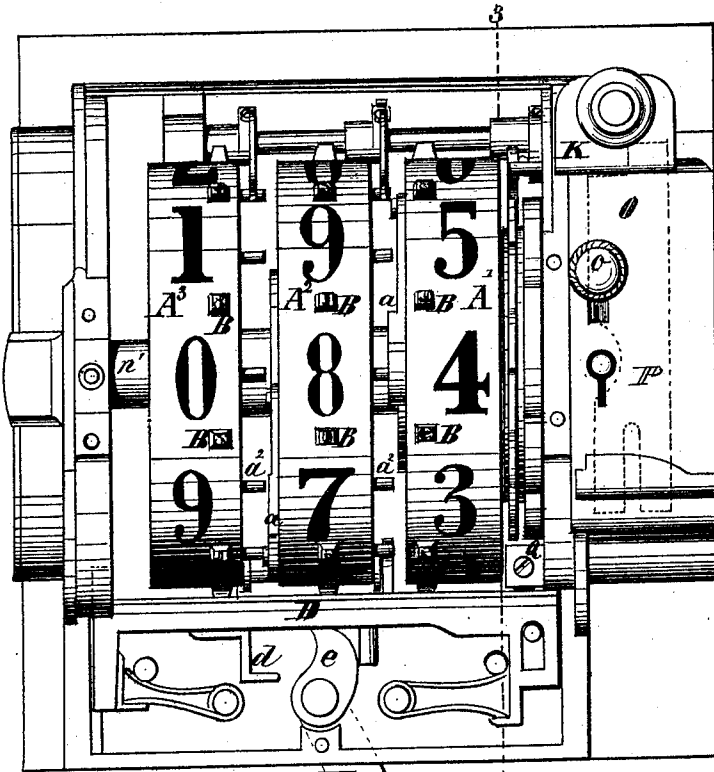


FIG. 3

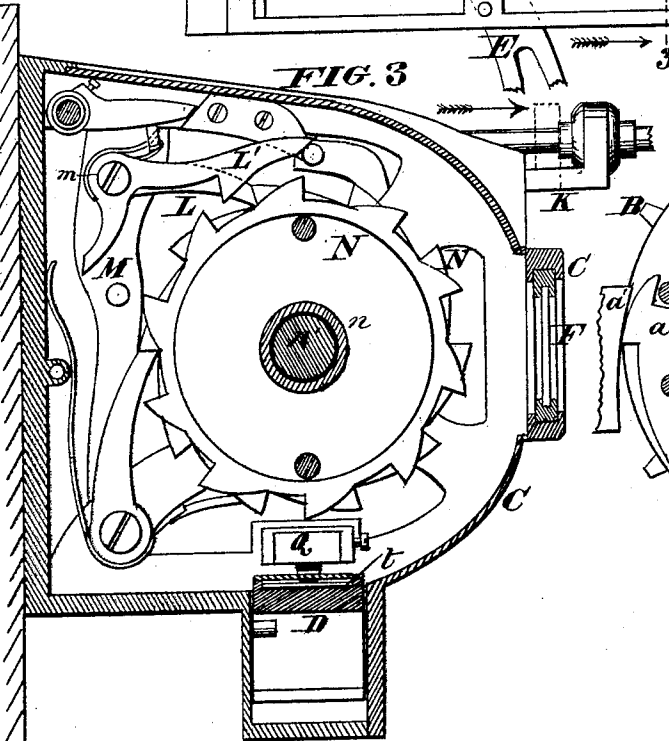
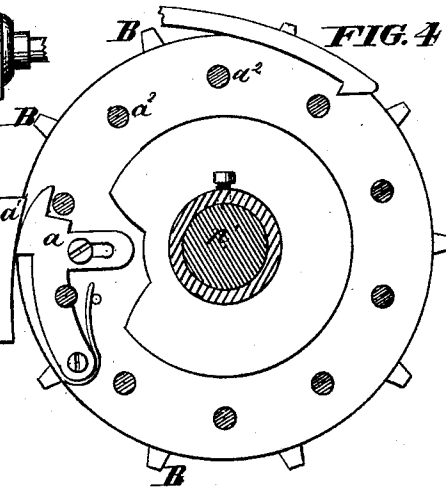


FIG. 4



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FIG. 5.

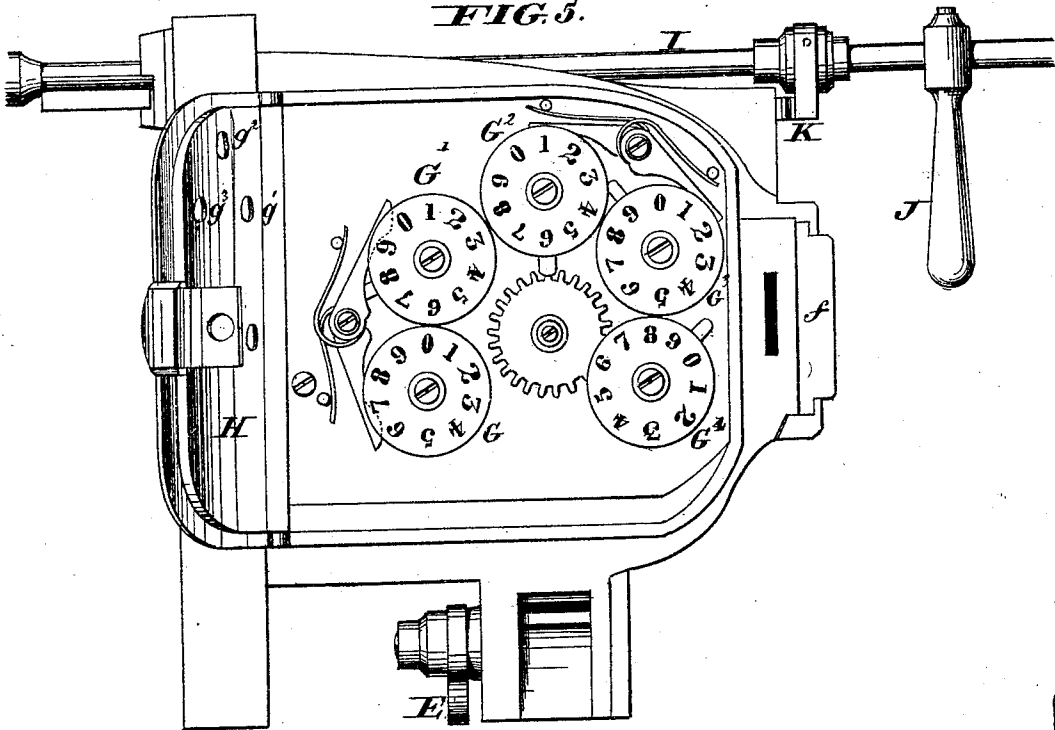
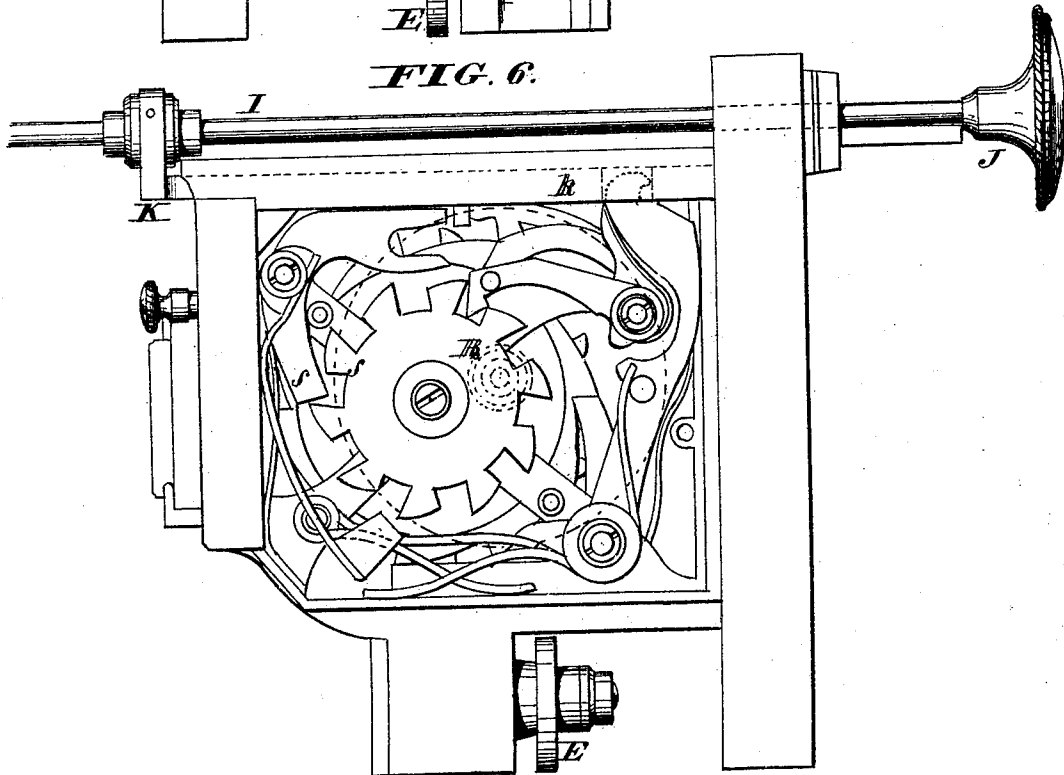


FIG. 6.



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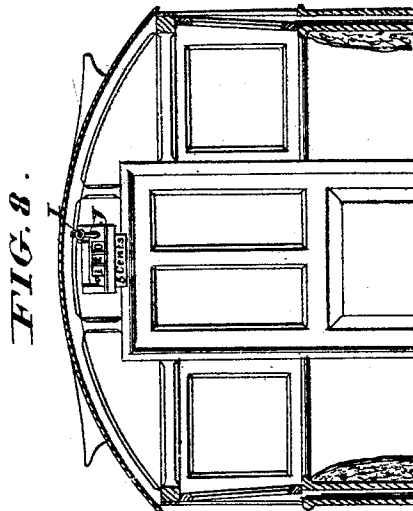
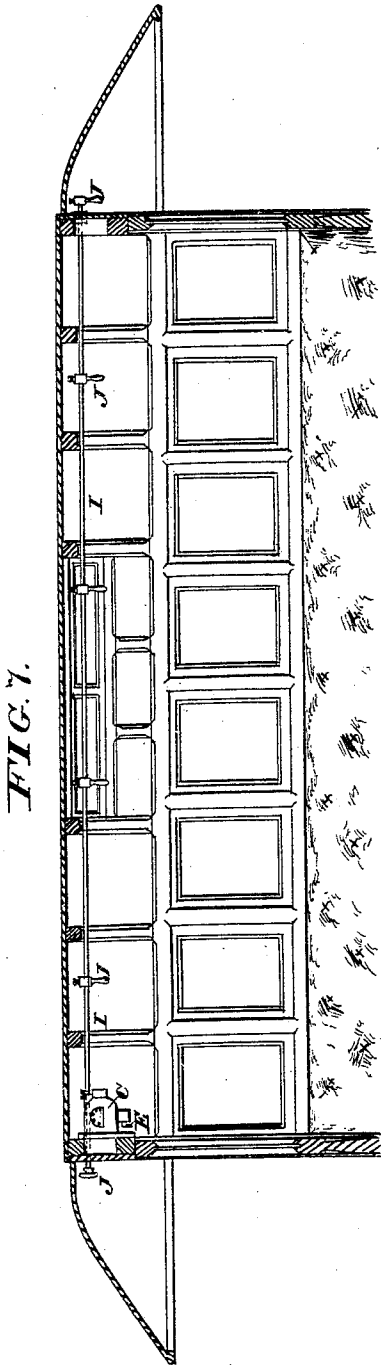
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# UNITED STATES PATENT OFFICE.

FRANKLIN W. BROOKS, OF NEW YORK, N. Y.

## IMPROVEMENT IN PASSENGER REGISTERS AND RECORDERS.

Specification forming part of Letters Patent No. **175,656**, dated April 4, 1876; application filed March 10, 1876.

*To all whom it may concern:*

Be it known that I, FRANKLIN W. BROOKS, of the city, county, and State of New York, have invented certain new and useful Improvements in Passenger Indicators and Registers, of which the following is a specification:

My invention relates to a fare indicator and register adapted to be permanently mounted in a car or other conveyance, or in a ferry or theater office, or any other place where it may be desirable to keep a record of persons admitted or amount received.

My improved passenger register and indicator is constructed with any desirable number of wheels, having numbers which are brought consecutively opposite appropriate apertures in the casing, so that the number of fares may be read without the intervention of index-pointers. Two sets of these indicating-wheels are employed—one to show the number of fares received in a given trip or in a short period, the other to form a permanent register of fares received during a longer period. The first set carries also relief characters, from which a printed impression may at any time be taken which will correspond with the number indicated by the numerals viewed through apertures in the casing. The wheels of each set are arranged decimally, so that a whole revolution of one may move the next one figure, and so forth. The two sets of wheels are operated simultaneously by a pull or push rod so applied that it must be partially rotated before it can be moved endwise to actuate the wheels. The two sets of wheels are thus moved independently of each other, so that when the first set is exposed for resetting them the motion imparted to the first set of wheels is not communicated to the second or permanent set. A locking device is provided to prevent the operation of the indicating mechanism at any time during the absence of the conductor or other party in charge, and the slide which exposes the first set of wheels is so applied as to render the operation of the permanent register-wheels impossible while the first set or indicator-wheels are exposed.

In the accompanying drawing, Figure 1 is a

perspective view of an instrument illustrating the invention. Fig. 2 is a front view with the face-plate removed. Fig. 3 is a vertical section on the line 3 3, Fig. 2. Fig. 4 is a side elevation of the first or second indicator-wheel, showing in section the pins of the next wheel, by which motion is communicated thereto. Fig. 5 is an elevation of the register side of the instrument, with the shutter open to exhibit the permanent register-wheels. Fig. 6 is an elevation of the indicator side of the instrument, with the side plate removed. Fig. 7 is a vertical longitudinal section of the upper part of a car, illustrating a mode of applying the invention. Fig. 8 is a transverse section of the same. Figs. 9 and 10 are views of the tablet.

A<sup>1</sup> A<sup>2</sup> A<sup>3</sup> are a set of wheels provided on their peripheries with numerals, which, as the wheels are revolved, are successively exposed, so as to be read through apertures in the casing C. The number of fares collected is thus plainly indicated at all times by the figures themselves without the intervention of index-pointers moving over dials in customary manner. The number-wheels are constructed with any suitable transmitting device to communicate motion from one to another, so that the rotation of one wheel will, when completed, move the next wheel in succession to the extent of one figure. In the present illustration I have shown each of the wheels, except the last, with a spring-pawl, *a*, on one side, which, at the proper moment, when the wheel is moved from 9 to 0, comes in contact with a stationary stud, *a*<sup>1</sup>, and is thereby pressed inward to cause it to engage with one of the pins *a*<sup>2</sup> projecting from the adjacent face of the next wheel, and thus compel the two to turn together. The wheels are further provided with relief figures B, so disposed that, by means of a suitable printing device, an impression may at any time be taken from them, which will correspond with the indication of the visible numerals first referred to. In the present illustration the printing device is located directly beneath the center of the wheels, so that as the indicator-numbers are viewed horizontally the said indicator-numbers and

the corresponding relief-numbers, from which the impressions are taken are ninety degrees apart.

The printing device consists of a vertically-moving platen, D, pressed upward by a cam or eccentric, *e*, actuated by a lever, E, which is pressed down to throw up the platen, and is raised to depress the platen, for which purpose the cam *e* engages with a lug, *d*. A recess may be had to the indicator-wheels above described by sliding back the glazed shutter F, through which the numbers are viewed. This slide is secured by a lock, *f*, the key of which is held by the receiving-clerk or other proper officer.

Two or more sets of the indicator-wheels may be used in one machine to show fares of different amount.

In addition to the indicator-wheels I employ a distinct set of wheels or disks,  $G^1 G^2 G^3 G^4$ , which I term "register-wheels," because they are intended to keep a permanent record of the whole number of fares received, and are never exposed for manipulation or setting. The shutter H covering the register-wheels G has perforations  $g^1 g^2 g^3 g^4$ , through which the indications of the said wheels are read. It is secured by a lock, *h*, or by a screw or other device accessible only from the inside, so that the said register-wheels can only be reached by taking the instrument to pieces. They are thus placed beyond the control of or reach of any one while the instrument is in use or in position.

The indicator and register wheels are actuated simultaneously, but independently, by means of a pull or push rod, I, which is furnished with any desirable number of pendent handles, J. Motion is communicated from the slide K to the two sets of indicator-wheels simultaneously by means of pawls L L' mounted on the wrist *m* of an arm, M, which receives motion by a connecting-rod, *k*, from the slide K. The pawls L L' communicate respectively with ratchet-wheels N N, the first fixed on a sleeve, *n*, to which the first indicator-wheel A is attached, the second secured to a shaft, *n'*, which passes through the sleeve *n*, and communicates through suitable gearing with the first of the permanent indicator-wheels. The inclosing-sleeve prevents access to the shaft *n'* of the permanent register-wheels while the shutter is open.

To prevent the operation of either set of indicator-wheels through the medium of the pull-rod and slide a stop-bolt, O, is employed, which, when thrown up, is secured by a lock, P. The operating-knob *o* of the bolt O is so placed that when the bolt is in its elevated or locking position the sliding shutter F may pass under it and prevent its retraction. This device renders it impossible to operate the permanent register-wheels while the first indicator-wheels are exposed for manipulation. Q represents a permanent type, to print the

number, letter, or other character representing the car to which the instrument is applied. The impression of this character is taken simultaneously with those of the indicating characters on the wheels  $A^1 A^2 A^3$ . The motion of the slide K, when completed so as to cause a movement of the wheels from one number to the other, strikes a bell or gong, R, through the medium of any suitable connections, such, for example, as are shown at *s s'*. The safety-catch L is employed to restore the wheel to its former position in the event of its receiving a partial motion which might expose a new number without locking it in the new position. In order to take from the indicator-wheels an impression corresponding with their visible indication at any period, a tablet is employed, substantially such as shown at T, in Figs. 9 and 10. These tablets are preferably constructed with long slips of paper or paste-board, with blank forms permanently printed on them for the number of the car, the name of the conductor, the number of the trip, the date, or any other desirable particulars, and are prepared for the reception of the impression of the number of fares collected by the use of a strip of manifold or carbon paper, as shown at *t*, which is attached at its ends to the tablet in suitable position to receive pressure from the type B on the wheels  $A^1 A^2 A^3$ , when the tablet is pressed upward by the platen in the manner already described.

The tablet represented in Figs. 9 and 10 is not claimed, because it constitutes a distinct invention, and will be made the subject of a separate application. It is here shown and described only for the purpose of explaining the mode of using the apparatus.

Having thus described my invention, the following is what I claim as new and desire to secure by Letters Patent:

1. An operating-rod requiring two distinct movements, the last of which is effective to actuate the indicator mechanism.

2. The combination, with an indicating mechanism, of a locking device adapted to prevent the operation of such indicating mechanism surreptitiously.

3. The combination, with two sets of indicators, of a shutter to give access to one set of indicators and a lock to prevent the movement of the second set when the first set is exposed, substantially as set forth.

4. The combination, in a stationary passenger-register, of the set of indicator-wheels  $A^1 A^2 A^3$ , adjustable for each day or trip, the inaccessible permanent set of register-wheels G  $G^1 G^2$ , the pull or push-rod I for operating the two sets of registers simultaneously, but independently, through connections substantially such as described, and a gong sounded at each effective movement of the rod.

5. The stationary hollow shaft supporting the indicator-disks, and the rotary shaft with-

in the former, in combination with the concentric ratchet-wheels, for the purpose set forth.

6. The combination, with a permanent register, of a daily or trip register, provided with one or more wheels showing visible numbers, and carrying raised characters, which will permit numbers corresponding with those exposed to view to be printed upon a trip-slip.

7. The platen, with its cam or eccentric operating-lever and retracting lug or spring, in combination with one or more indicator-

disks, provided with type-projections for printing the number registered at any given time, substantially as herein set forth.

8. The fixed type for printing the number of the instrument, in combination with the indicator-disks provided with type-projections for printing the number of fares, substantially as shown and described.

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Witnesses:

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