

Fare-Registering Devices.

Patented Jan. 12, 1875.

[illegible]

This diagram, labeled "Enlarged," provides a detailed view of the ciphering mechanism. It shows a large circular wheel labeled "m" on the left, which is part of a set of wheels labeled "L". A horizontal shaft passes through the center of wheel "m" and continues to the right, passing through the centers of several other wheels. A lever or arm is shown on the left, connected to the shaft and a spring mechanism. The wheels are arranged in a row, and the shaft is labeled "g". The lever is labeled "h". The wheels are labeled "n" and "p". The diagram illustrates the mechanical arrangement of the ciphering wheels and the lever mechanism.

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IMPROVEMENT IN FARE-REGISTERING DEVICES.

Specification forming part of Letters Patent No. 158,568, dated January 12, 1875; application filed November 27, 1874.

To all whom it may concern:

Be it known that I, JOHN A. BROWN, of Boston, Suffolk county, Massachusetts, have invented a certain Fare-Registering Device or Appliance, of which the following is a specification:

The purpose of this invention is to provide an appliance for omnibuses, and other conveyances which dispense with a conductor, whereby a passenger, when paying his fare to the driver, automatically and necessarily operates an indicating mechanism, which registers such fare, and at the same time actuates a bell or signal, which informs the passenger within hearing that a fare has been paid.

My invention constitutes a watch upon the conduct of the driver, since, as each fare is registered by an indicator, which is beyond his control, the amount of returns rendered by him must tally with the indicator.

The drawings accompanying this specification represent, in Figures 1 and 2, opposite side elevations of a portion of an omnibus with my device attached. Fig. 3 is a plan of a portion of the indicator. Fig. 4 is a vertical section of the device as applied to an omnibus. Fig. 5 is a plan of the ratchet-wheel and pawl by which one of the doors actuates the indicator, the same being hereinafter explained.

In these drawings, A represents the upper front portion or "bay" of an omnibus of ordinary production, a portion of the roof of the same being shown at *b*.

In carrying my invention into practice I provide an oblong box, B, provided with a cover, C, which is to be locked at all times, except when opened by the person authorized to receive the fares at the office. Depending from the under side of the box B, and filling the bay or arched opening A, is a vertical partition or wall, D, within which wall I create two or more hand-holes, E F G, &c., of a size sufficient to enable a passenger to pass to the driver the fare or the sum of money from which the fare is to be deducted. Each opening, E F G, &c., is to be closed by a door, H, which should be transparent in order that the driver may see the passenger or passenger's hand through it, while each door is secured to and mounted upon a vertical rod, *e*, the upper

end of which passes through the bottom of the box B and rises into the interior of the latter some distance, a spring of suitable character being applied to each door, the stress of which serves to close the latter. Each door is provided with a latch, *d*, pivoted to its upper outer corner, these latches being in convenient proximity to the driver's hand, in order that he may release them and permit the door to be opened when a passenger desires to pay a fare, or to hand the driver a sum of money from which to take such fare. Some one of the doors H may be composed of or covered with a grating, in order that passengers and the driver may converse with each other, if desirable. I, in the drawings, represents an inverted cup composed of glass; this cup being suspended from the under side of the floor of the bay A, and being open at top, and in convenient proximity to the driver, in order that he may deposit in it the passenger's change, should such passenger be entitled to any change. The body of the transparent change box or receptacle I is disposed within the interior of the omnibus, in order that a passenger may see when his change is ready for him and leisurely take the same; an aperture, *e*, being created in the lower part of such box, through which the passenger removes his change. The upper end of each rod *c* has one end of a chain, *f*, attached to it, the opposite end of such chain being secured to a long horizontal rod, *g*, disposed longitudinally within the box B; this rod being forced in one direction and the chains tightened by a spring, *h*, suitably applied, while the opposite extremity of such rod is formed with a tooth, *i*, which acts in conjunction with an oscillating bar, *j*, pivoted to a shelf, *k*, disposed within the box; the opposite or free end of this bar, carrying a hammer, *l*, which operates in conjunction with a bell or gong, *m*, affixed to the shelf *k*, as shown in Fig. 3 of the drawings. To each rod *c* I affix a disk, *n*, which is in close proximity to the bottom of the box B, and upon this disk I pivot a spring-pawl, *o*, which engages and advances a ratchet-wheel, *p*, affixed to the lower end of a vertical shaft, *q*, which constitutes the first of a series of shafts which make part of an indicator, L, which is placed within the box B.

An indicator is employed with each rod *c*, and these indicators are such as are now extensively used in water-meters and other instruments. With every opening and closing of one of the doors E, F, or G, the indicator connected with it counts up one, and at the end of the route or at night the collector is enabled to ascertain at a glance what amounts have been paid the driver, and the returns of the latter must correspond to the indicator, thus effectually putting a stop to any dishonest appropriation on his part. The box B and its adjuncts are independent of the omnibus, and are removed from the latter at night to prevent tampering with their contents, and when attached to the omnibus are to be securely locked thereto. My object in providing two or more holes and doors is, that when several fares are paid at once by one passenger, all these fares shall be recorded. To this end I employ several doors. I affix in front of each a label or card to indicate the amount to be paid in each. For instance, one door is to bear a sign that one fare is to be paid through it; another two fares, and another three, &c.

The operation of my invention is as follows: If a passenger is to pay one fare, and has the proper change wherewith to pay it, he raps upon the door or pulls the signal-bell now in use upon most omnibuses, and by so doing notifies the driver that he is ready to pay his fare, and indicates with his hand the particular door through which he desires to pay it. The driver accordingly releases and opens the door, and receives the fare and places it in his cash-box, at the same time closing the door or re-

leasing his hold upon it, and allowing its spring to close it. This act of opening and closing the door, as before stated, actuates the indicator connected with such door one point. If a passenger desires to pay two or more fares, and has the proper amount, he notifies the driver, as before stated, and places his hand upon the door through which he is to pay it. The driver releases and opens the door, the fare is handed the driver and the door closed, and the indicator connected with this counts up two fares or more, according to amount designated upon any given door. If a passenger desires to pay one or more fares he calls the driver's attention to the door which designates the proper amount, and the driver opens this door and receives the sum of money from the passenger. The driver then deducts the amount which the door indicates is to be paid, and deposits the change in the transparent receptacle I, from which the passenger may remove it at his leisure.

I claim—

A device for registering fares of omnibuses and other conveyances, consisting of a series of two or more doors connected with any suitable indicator and an alarm or bell, each door being provided with a sign to indicate the amount to be paid through it, and the whole operating substantially as and for purposes stated.

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Witnesses:

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