4 Sheets—Sheet 1.

J. B. BENTON.

Fare-Register.

No. 218,421. **Patented Aug. 12, 1879.**

Fig 1.

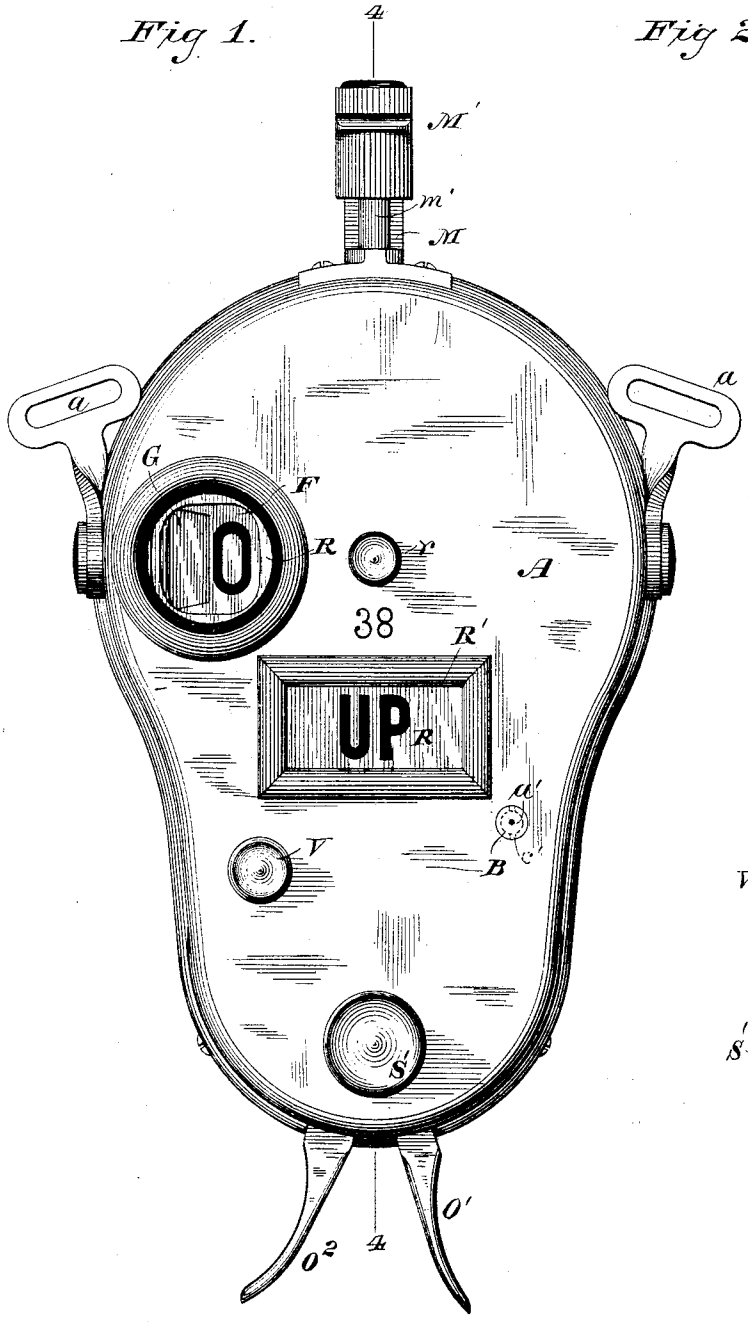
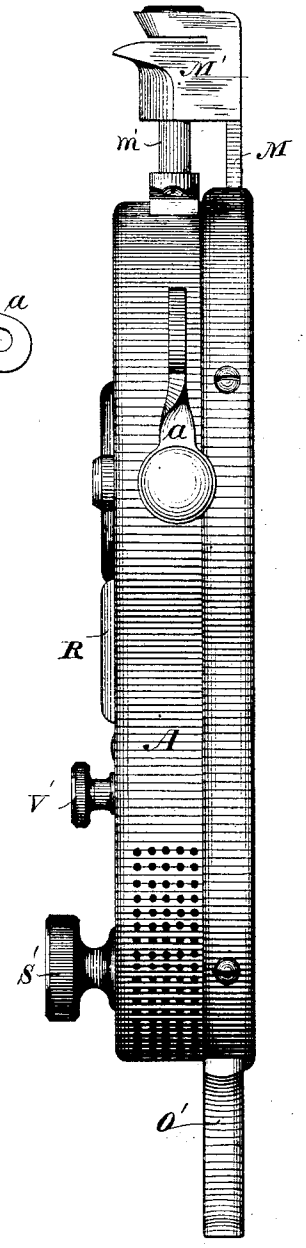


Fig 2.



WITNESSES

Wm A Skinkle

Geo W Breck

INVENTOR

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Baldwin, Hopkins & Peyton

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4 Sheets—Sheet 2.

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Fig 3.

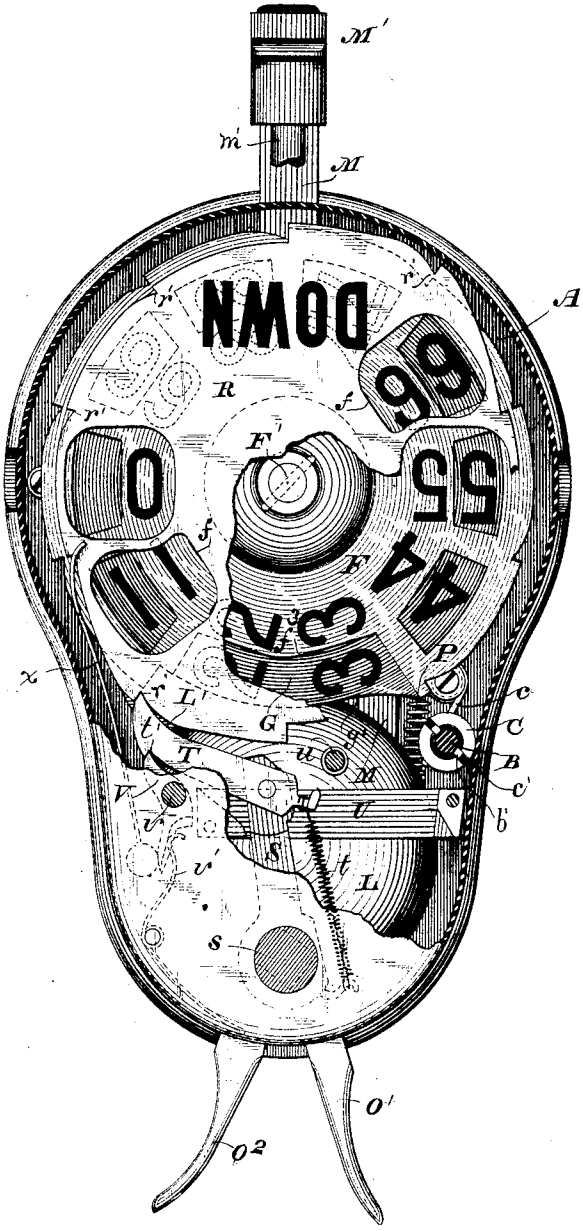
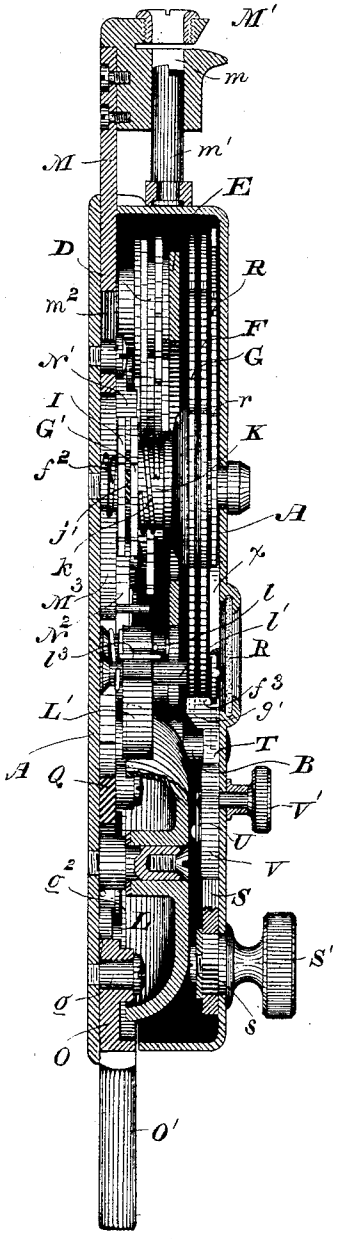


Fig 4.



WITNESSES

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4 Sheets—Sheet 3.

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No. 218,421. **Patented Aug. 12, 1879.**

Fig 5.

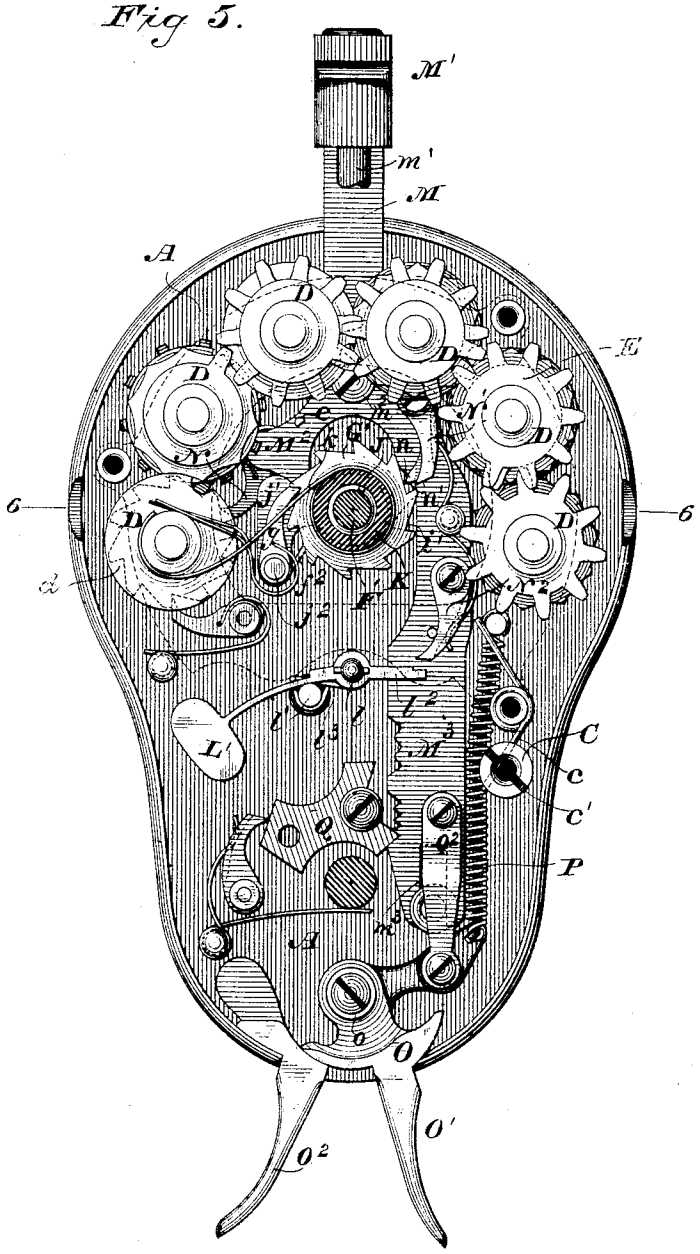
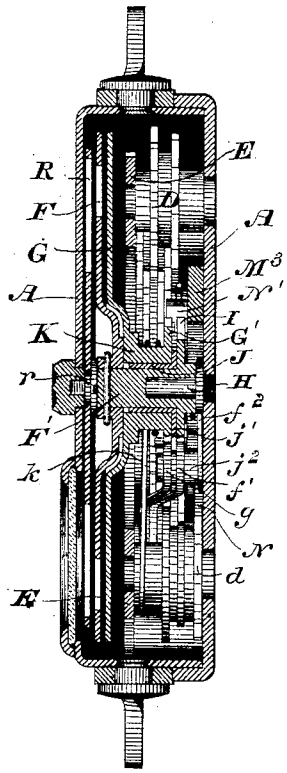


Fig 6.



WITNESSES

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4 Sheets—Sheet 4.

J. B. BENTON.

Fare-Register.

No. 218,421. Patented Aug. 12, 1879.

Fig 7.

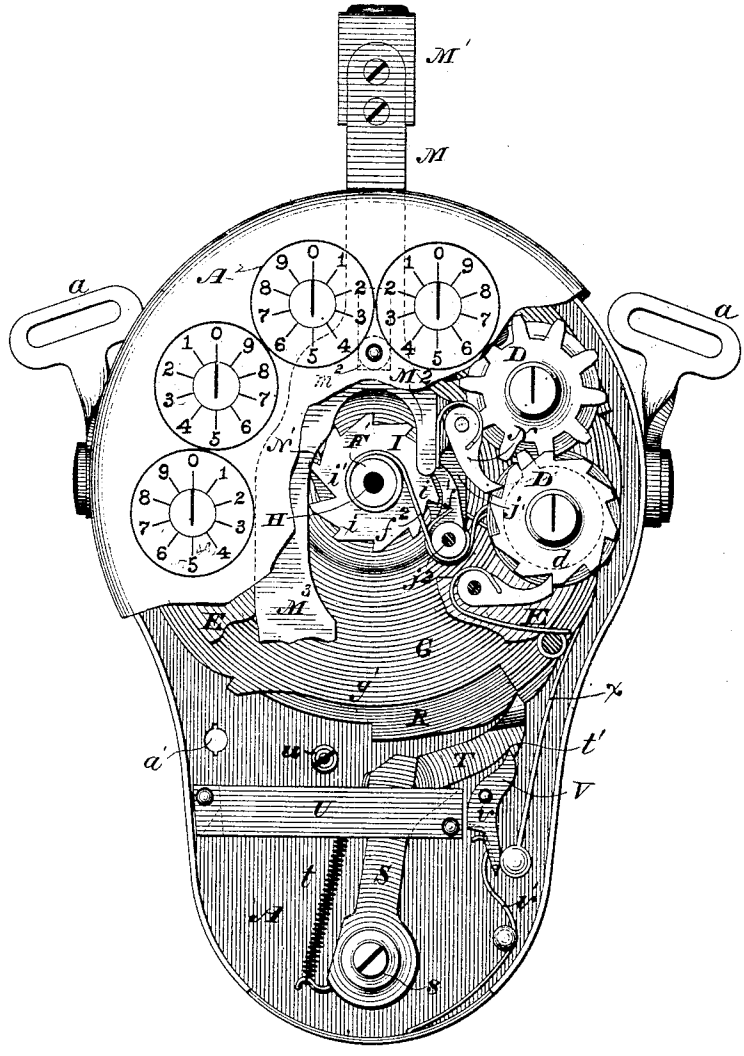
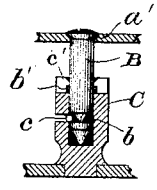


Fig 8.



WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN B. BENTON, OF NEW YORK, ASSIGNOR TO THE RAILWAY REGISTER MANUFACTURING COMPANY, OF BUFFALO, N. Y.

IMPROVEMENT IN FARE-REGISTERS.

Specification forming part of Letters Patent No. **218,421**, dated August 12, 1879; application filed March 20, 1879.

To all whom it may concern:

Be it known that I, JOHN B. BENTON, of the city, county, and State of New York, have invented certain new and useful Improvements in Registering-Machines, of which the following is a specification.

My invention relates to counting or tallying machines more especially designed for fare-registering purposes, and belongs more particularly to the class of such registers known as "duplex machines," or registering-machines in which are combined two sets of registering mechanism, simultaneously operated (in connection with an alarm) by the same prime mover, one of said mechanisms being for the purpose of recording the number of fares taken on each trip or direction of travel of the car or vehicle, and capable of being set to zero, or the starting point, at the beginning of each trip, constituting what is called a "trip-register," while the other of said mechanisms is for the purpose of recording not only the number of fares collected on each single trip, but the whole number collected on a series of consecutive trips, constituting what is called a general, continuous, or permanent register.

By the employment of such a machine frauds and thefts by the receiver of the fares are prevented, the conductor of the car, driver of the vehicle, or collector being required, as each fare is received, to operate the register and sound an alarm, which notifies the passenger of the proper registry of his fare.

My present invention constitutes an improvement upon the register shown in Letters Patent No. 206,565, granted to C. B. Harris, July 30, 1878, and also upon the mechanism shown, described, and claimed by me in an application for Letters Patent of the United States, filed February 12, 1879, said application in turn showing mechanism constituting an improvement upon that embodied in reissued Letters Patent No. 7,290, granted September 5, 1876, to H. E. Towle and myself, jointly, and in original Letters Patent No. 167,057, granted to me August 24, 1875; and my said invention consists, principally, of certain new combinations of devices, which are recited at the close of this specification.

My apparatus embodies in its organization a permanent or general register, a trip-register, an alarm, a direction-indicator, a punch or canceling device, and an actuator or slide common to said registers, alarm, indicator, and punch, the object of my invention being to furnish an improved fare-register of the class hereinbefore recited.

The accompanying drawings show all my improvements as embodied in one machine in the best way now known to me. Obviously, however, some of them may be used without the others, and in machines differing somewhat from that therein shown.

Figure 1 is a front elevation of my improved fare-register, the trip-register being at the starting-point or zero, and the direction of travel indicated as "up;" Fig. 2, a side elevation thereof; Fig. 3, a view similar to that represented in Fig. 1, with the face-plate and direction-indicator partly broken away to show the internal parts of the apparatus, other parts being in section for their better illustration; Fig. 4, a longitudinal central section through the apparatus on the line 4 4 of Fig. 1; Fig. 5, a view of the internal parts beneath the trip-register disks and alarm-bell, said disks and bell having been removed; Fig. 6, a central transverse section through the device on the line 6 6 of Fig. 5; Fig. 7, a view from the back of the register, showing the index of the general or continuously-counting register, a portion of the back plate of the casing being broken away to show the resetting mechanism of the trip-disks and direction-indicator disk, which is mounted upon the inner side of the front or face plate of the casing, the intervening parts being removed; and Fig. 8 is a detached view of the locking pin or bolt which permanently secures the front and back plates of the register-casing together, and prevents access to the interior thereof.

The casing A is preferably of a flat, tapering form, and similar to that shown in my application of February 12, 1879, hereinbefore referred to, that form obviously possessing advantages for convenient handling, and being specially adapted for the reception of the operative parts of the register as organized in the present instance, which organization in general is similar to that exhibited in my said

application. The register may be attached to the person of the user by means of the pivoted loops *a*, in well-known ways.

The casing preferably consists of a front and back plate, connected by the tapering curvilinear rim or band which forms the sides and completes the inclosure, said rim in the present instance being formed with or permanently secured to the front plate, and connected to the base or back plate by suitable fastenings, screws being shown.

It is desirable to permanently secure the front and back plates together, in addition to the other fastenings, so as to prevent access to the interior or working parts of the register, and thereby prevent fraudulent tampering with and manipulation of the mechanism; and to attain this end I employ an automatic locking device, consisting, in the present instance, of an independent locking pin or bolt, B, (having a pointed or tapering end, the shank, and a tapering head, the shank being provided just above its tapering point with a shouldered groove or recess, *b*,) in connection with a spring-catch, which engages said pin. The locking-pin is passed through a countersunk opening, *a'*, in the face-plate into the bore of a post, C, rising from the base or back plate, the tapering end of the pin forcing aside a retaining-spring, *c*, which lies in the slot cut in the post at right angles to and across said bore under tension and pressing inward to the center of the post. As soon as the shouldered recess in the locking-pin comes opposite the spring, which is at the moment the tapering head is received by the countersink in the face-plate, said spring snaps or springs into said recess, locking the bolt from withdrawal and permanently closing the case. When the register has become inoperative or defective by wear or otherwise, the casing may be opened by cutting away the head of the locking-pin below the countersink in the casing, the pin being prevented from turning by its cross-pin *b'*, which lies in the slot *c'* in the post C.

The registering mechanism proper consists of two sets—a trip or temporary register, to record, count, or tally the number of fares collected on each trip, and a general, permanent, or continuously-counting register, which records, counts, or tallies the whole number of fares taken on all or a series of trips.

The general register is composed of a train or series of wheels, D, (six in number in the present instance,) of well-known construction, and preferably operating on the principle of the Geneva stop, the advantages of which are well known; the said wheels being mounted upon and turning with suitable shafts, axles, or arbors, having their bearings in front in a suitable supporting-plate, E, fixed upon posts rising from the base or back plate, and in rear in suitable openings in said base.

This general or continuously-counting register is capable of registering or tallying a large number of fares, the first wheel registering units, the next tens, the next hundreds, and so on, each wheel being provided with ten teeth or notches, and all except the last with a plate having an actuating tongue or projection, which, at every complete revolution of its wheel, turns the next highest-counting wheel the distance of one tooth, or one-tenth of a revolution.

The construction and operation of this class of multiplying registering mechanism are too well understood to need elaborate detail description. I prefer, however, the concentric or semicircular arrangement of the train in the upper enlarged end of the casing, as shown, as such an arrangement provides a central space for the reception of the trip-registering mechanism hereinafter described, and permits of a compact organization of the parts, all of which is set forth in my application aforesaid.

The rear ends of the shafts of the general-register wheels extend through the back plate and lie flush with its exterior surface, as shown in Fig. 7, being preferably provided each with a notch or mark in lieu of index fingers or pointers, which, in connection with suitable dials (corresponding to the teeth in the wheels) formed upon the casing, one dial for each wheel, enables the register to be read off at a glance, and obviates all danger of successful tampering with or manipulation of the general register.

The trip-register consists of two flat circular disks or plates, F G, mounted in the upper end of the casing, one above the other, and overlapping the general register, the top disk, F, which is the unit-disk, being provided on its face with the numerals 0 to 9, inclusive, and the lower or tens disk, G, with the numerals 1 to 9, inclusive, a blank space being left between 9 and 1, as usual, the unit-disk also having cut-away portions or apertures *f*, corresponding with, and through which to read, the numbers on the disk below.

The unit-disk F of the trip-register is securely mounted or keyed upon the upper or front end of a sleeve or spindle, F', which is fitted to turn upon or around a hub, H, secured to and projecting from the base or back plate of the casing centrally of the general-registering train. This sleeve F' is provided, near its lower or rear end, with an actuating ratchet-wheel, I, the two being firmly connected, so as to turn together, said wheel being provided, in the present instance, with ten teeth or notches, *i*, as usual, and with one notch, *i'*, deeper than the rest, for a well-known purpose, hereinafter to be mentioned.

Surrounding the sleeve F' is a fixed sleeve, J, an extension or arm, j^1, of which is secured to a post or upright, j^2, rising from the back plate, and upon this fixed sleeve, intermediate of the upper or unit disk and its actuating ratchet-wheel, is mounted a sleeve, K, carrying upon its front end the tens-disk G, which, as before stated, lies parallel with and just behind or below the unit-disk. The sleeve of the tens-disk carries upon its lower end an actuating ratchet-wheel, G', having ten teeth

therein, and being about the same size as the actuating-wheel of the unit-disk, said sleeve and wheel possessing the capacity of turning freely around the fixed sleeve J in the same direction as the unit-disk-actuating devices, to permit the tens-disk to turn in the same direction as the unit-disk when the register is being worked.

Suitable spring pawls or dogs f^1 g are mounted upon the post j^2, on opposite sides of the extension or arm j^1 of the fixed sleeve J, and are for the purpose of preventing back action of the actuating-wheels of the trip-disks, whose teeth they engage.

It will be seen that the fixed sleeve J separates the two disks or their carrying devices, and also acts as a washer between the retaining pawls or dogs of said disks, preventing contact between them, which is necessary, as, were said dogs in contact, the friction of one would be apt to move the other out of time, and thus prevent the perfect action of the register.

At every complete revolution of the unit-disk of the trip-register when the apparatus is at work the tens-disk makes one-tenth of a revolution, whereby the trip-register, in this instance, is capable of registering ninety-nine fares, which is sufficient for ordinary purposes; but another disk to register hundreds may be added, if desired, in well-known ways.

For convenience in reading or inspecting the trip-register, and to enable the passenger to see that his fare is properly registered thereby, an opening or window is made in the front plate of the casing A, the window being covered, as usual, with glass, or some equivalent transparent material, to prevent tampering with the disks or the mechanism which controls and governs their movements.

The alarm mechanism is situated in the lower or smaller end of the casing, below the registering mechanism, and consists of a bell, L, mounted upon a post rising from the base, and a hammer, L′, the arm or lever of which is pivoted at l, and is normally held slightly out of contact with the bell by a post or projection, l'.

The actuator or prime mover of the apparatus, which is common to both sets of registering mechanism, (the trip and general registers,) and actuates them simultaneously, or nearly so, in connection with the alarm apparatus, consists, in this instance, of a slide or push bar, M, the upper end of which moves endwise through an opening in the upper end of the casing, and is provided with a slotted head or jaws, M^1, for the reception of a ticket or strip to be punched or canceled, the said slotted ticket-head being provided with a longitudinal bore or opening, m, in which is fitted the punch or canceling device, m^1, said punch being fixed to the casing, and the punching or canceling operation performed by the reciprocation of the slide-bar, which carries the ticket-slot across the punch. This punching or canceling feature, in combination with a trip and general register, broadly considered, is shown in the Harris patent hereinbefore referred to; and it will be obvious, as stated in that patent, that the chippings, instead of being allowed to escape, may be preserved in a suitable locked receptacle attached to the punch, in order to constitute an additional record of the actuations of the punch and of the fares collected. The slide-bar is also provided, inside the casing, near its upper end, with a guide-slot, m^2, through which is passed a fixed headed pin or guide-screw, and at its lower end with a guide-slot, m^3, through which is also passed a guide-pin, whereby the steady reciprocation of the slide-bar is secured.

The slide or bar M has two arms, one a short arm, M^2, which carries a spring-pawl, N, to actuate the unit-wheel of the permanent register by engaging with one of the ten teeth in its actuating ratchet-wheel d, and the other a long arm, M^3, which carries a spring-pawl, N^1, to actuate the ratchet-wheels I G′ of the trip-disks by engaging one of their ten teeth. This long arm also carries another spring-pawl, N^2, which engages with the short arm, l^2, of the bell-hammer lever to raise the hammer by rocking it upon its pivot against the tension of its impelling-spring l^3, whereby, when the hammer is allowed to slip from its lifting-pawl, which is the case as the downward movement of the slide-bar continues, it is brought quickly down upon the bell and sounds the alarm.

It will be noticed that the pawl N^1 is of peculiar construction—that is, it is, in fact, a double pawl, having two actuating-points, n n', the one n' (the top one) being shorter or of less radius than the one n. The pawl n, as the actuation of the slide-bar takes place, acts upon the actuating-wheel L of the unit-disk, while the pawl n' (which is the one that actuates the tens-disk) is out of engagement with the actuating-wheel G′, and continues so until the repeated actuation of the slide-bar brings the deep notch i' of the wheel I next the pawl N^1, which pawl, on the tenth movement of the bar, (if the register has been started at zero,) vibrates into said deep notch, carrying the point n' into engagement with the actuating-wheel of the tens-disk, turning that disk one-tenth of a revolution, or the distance of one notch, all of which is a method of operating registering apparatus well known, and is substantially the same as that described in my pending application.

The actuating movement or reciprocation of the slide-bar is accomplished in this instance by means of a bell-crank lever, O, pivoted at o, and provided with a finger-piece, O^1, projecting from the lower end of the casing, corresponding with the fixed finger-piece O^2, also projecting from the casing. One arm of the lever is connected with the lower end of the slide-bar by a link or pitman, o^2, whereby as the lever is vibrated by the fingers, or fingers and thumb, the bar is drawn down to do its work, and then returned, when the pressure is

relieved, by the action of a spring, P, to its normal position, in readiness for the next stroke, as usual.

To render it impossible to ring the bell without operating the registering mechanism, and to compel a full movement of the slide-bar in either direction before it can be reversed, I employ a shifting detent-pawl, Q, in connection with two series of ratchets formed on the edge of the long arm of said slide-bar, substantially as shown in reissued Letters Patent of the United States No. 6,146, of November 24, 1874, and No. 6,929, of February 15, 1876, granted to the Railway Register Manufacturing Company, as the assignee of Joseph Corbett, in which recited Letters Patent a full description of the construction and operation of this device is set forth.

The operation of the mechanism thus far described is as follows: At every complete inward stroke of the slide-bar the unit-wheel of the permanent register is rotated the distance of one tooth, or one-tenth of a revolution, by the pawl N. The actuating-wheel I, and consequently the unit-disk of the trip-register is rotated the distance of one tooth by the point *n* of the pawl N^1, and the alarm is sounded by the pawl N^2, the slide-bar being thrown outward after every complete inward movement by the spring P. At the tenth actuation of the unit-wheel of the permanent register a tooth thereon engages with one of the notches of the next or tens wheel, moving it the distance of one tooth, which operation continues throughout the series of wheels, while at the tenth actuation of the unit-disk of the trip-register the pawl N^1 (which has hitherto been kept from engagement with the actuating-wheel G′ of the tens-disk) vibrates into the deep notch *i′* in the actuating-wheel I of the unit-disk, carrying its point *n′* into engagement with the said toothed wheel G′ of the tens-disk, turning it one point or one-tenth of a revolution, the trip-register then showing a record of ten actuations of the push-bar, and consequently that number of fares collected, while a like record or increase is shown by the permanent register.

To prevent the momentum of the trip-disks from carrying them farther than they should travel at each actuation, or as each count is being made, or to return them to their proper position if they should be so carried, I employ a checking or returning device consisting, preferably of springs *f′ k*, as shown in Figs. 4, 5, 6, and 7, the springs being termed by me "drag" springs. These springs are suitably secured at one end to posts or projections rising from the base, and are coiled at their opposite ends about the sleeves, slightly clasping them, the friction being sufficient to keep them partially wound up upon the sleeves, whereby, when the pawl N^1 is released from contact with the toothed actuating-wheels of the trip-disks the recoil of the springs causes said disks to assume their proper position, which is regulated by the back-action pawls or holdback-dogs. I also contemplate employing a stop-pin or projection, *e*, on the slide-bar, adapted to come in contact with the back of the teeth of the actuating ratchet-wheels of the trip-disks upon the down stroke of said bar, in order to check the momentum of the disks; but inasmuch as it is necessary to have a certain amount of lead to the ratchet-wheels to make sure of the proper engagement of the holdback-dogs at the proper time, and it being difficult to check the wheels so as to have the figures upon the disks show exactly in the center of the view opening, I have devised the drag-springs to control this lead.

A direction-plate or indicator, R, is situated in the upper end of the casing, directly over the trip-disks, and parallel therewith, being mounted upon a suitable stud-axle or shaft, *r*, concentric with the axes of the trip-disks. This plate, which is to show the direction of travel of the car or vehicle, is provided on its face, near the periphery, and at two points, one directly opposite the other, with words, letters, signs, or marks indicating opposite directions of travel, being, in this instance, the words "up" and "down," which would be the proper signs to employ on a road or route running in those directions; but it will be obvious that other signs or words may be used, as occasion or circumstances require.

This direction-indicator, broadly considered, is shown in the Harris patent before alluded to, but as now organized and constructed by me embodies substantial improvements thereon.

This plate R, it will be observed, is eccentric, or of an oval or oblong shape, (or not exactly circular,) and is provided on its periphery or edge with notches or teeth *r′* at proper distances apart, and with two openings or slots (or one slot of increased length) on each side, and directly opposite each other.

The slots are for the purpose of leaving the view of the registering-disks unobstructed, and a suitably glass-covered window, R′, in the casing also permits of a conspicuous display of the words or signs indicating the direction of travel.

The teeth in the edge of the direction-plate are for the purpose of shifting or changing the plate, and correspond with teeth or notches placed, at equal distances apart, upon the edge or periphery of the trip-disks, which teeth are for the purpose of resetting or bringing the trip-register at the end of each trip, or whenever desired, to zero or the starting-point without disturbing the integrity of the record preserved by the continuously-counting or permanent register. The trip-disks are also cut away or have recesses formed in their edges at f^3 *g′*, respectively, as clearly shown in Fig. 3, for a purpose hereinafter explained.

A retaining spring or dog, *x*, (shown in Figs. 3 and 7,) prevents back movement of the direction-plate.

The resetting of the trip-register and shift-

ing of the direction-plate are accomplished by means of a lever, S, pivoted to the inside of the front plate at *s*, and carrying upon its upper or free end a jointed actuating dog or pawl, T, which acts upon the teeth in each of the counting disks, and also in the direction-plate, the dog being kept in proper working position by means of the spring *t*. The lever S is actuated or controlled by a knob, S′, outside the casing, which is rocked backward and forward by the thumb and finger, the lever being guided and limited in its movements by the bar U, and the jointed dog guided and limited in its backward movement by the projection or lug *u*, as clearly shown in Figs. 3 and 7.

To prevent fraud it is desirable that the direction-plate be incapable of changing its reading or indication until the trip-register has arrived at zero, and also that the last reading or indication be displaced or hid before the register is reset or brought to zero, as if the register could be reset without interfering with the direction-sign the trip-register could be made to show a record greater than that (or the increase) on the permanent or continuously-counting register, which would render possible fraudulent operations or practices by the conductor; and, in the same way, if the sign or indication of the direction-plate could be changed before the setting of the register to zero the conductor could also manipulate the register to his advantage. Therefore, in order to avoid the possibility of fraud, I have so organized the trip disks and direction-plate, as shown, that in setting the register to zero the actuating-dog T acts first on the direction-plate, the first tooth in that plate to be acted upon being farther away from the center of revolution than the teeth of the trip-disks.

The indication or sign is thus displaced or moved out of position before either of the disks are acted upon, and partially hid beneath the face-plate.

The next actuation of the dog T engages it with the teeth of the trip-disks, and, as in the position the direction-plate is left, (owing to its shape,) its teeth are nearer the center than the teeth of the disks, it remains unacted upon. Consequently, the disks will be carried by the actuation of the knob or handle S′ step by step till they arrive at zero. When the disks are in this position, (at zero,) the actuating-dog no longer engages the disks, owing to the cut-aways or recesses f^3 g' therein, but is permitted to re-engage the teeth in the direction-plate to complete its journey or shifting to indicate an opposite or different direction of travel.

The last tooth in the direction-plate engaged by the dog is farther from the center than any of the others, as clearly shown, and as the dog carries the plate home it (the dog) is raised or moved outward, owing to the cam-edge of the plate, till it comes in contact with a small retaining latch or dog, V, pivoted at *v*, and acted upon by a spring, *v′*, which latch engages a notch, *t′*, in the actuating-dog, locking it and the direction-plate firmly in position, as clearly shown in Figs. 3 and 7, the actuating-dog being at the same time raised or moved out of the way of the travel of the counting-disks.

The retaining-latch V is controlled by a small knob or handle, V′, outside the casing, which is operated when it is desired to throw it out of contact with the actuating-dog to shift the plate and reset the register.

The operation and advantages of my improved register will be readily understood and appreciated by those skilled in the art from the foregoing description.

I claim as of my own invention—

1. In a portable fare-register, the combination, substantially as hereinbefore set forth, of the casing, the registering mechanism, the slide-bar carrying the actuating devices, the cranked operating-lever having a finger-piece pivoted in said casing, the link-connection between said lever and slide-bar, and the spring acting to return the slide to a position for a new actuation of the register when operated by the lever.

2. In a portable fare-register, the combination, substantially as hereinbefore set forth, of the casing, the registering mechanism, the alarm, the slide-bar carrying the actuating devices, the cranked operating-lever pivoted in said casing and having a finger-piece or handle, the spring to return the slide to its normal position when operated by the lever, and the mechanism to compel a full movement of the slide-bar in both directions of its traverse.

3. The combination, substantially as hereinbefore set forth, of the trip and general registers, the slide-bar or actuator simultaneously operating said registers, the slotted ticket-head or jaws of said slide, and the punch-bar, fixed to the casing, over which the ticket-head works or is carried on each stroke of the slide to operate the register.

4. The combination, substantially as hereinbefore set forth, of registering mechanism, the actuator or slide for operating said mechanism, the punch operated by and at one end of said slide, and the finger-piece or handle for operating the actuator from its opposite end.

5. The combination, substantially as hereinbefore set forth, of registering mechanism, the actuator or slide for operating said mechanism, the alarm mechanism, the punch operated by and at one end of said slide, and the finger-piece or handle for operating the actuator from its end opposite said punch.

6. The combination, substantially as hereinbefore set forth, of the casing, the trip-register, the general register, the actuator or slide, the slotted ticket-head, the punch-bar, across which the ticket-slot is carried in the working of the slide, the alarm, and the finger-piece or lever acting upon the end of the slide opposite the punch to operate it.

7. The combination, substantially as here-

inbefore set forth, of a register-disk, its actuating ratchet-wheel, the slide-bar, having a stop-pin or projection acting upon said ratchet-wheel to check the momentum of said disk, and a spring to compel the disk to assume its proper position, as regulated by a holdback-dog.

8. The combination, substantially as hereinbefore set forth, of a register-wheel, its holdback-dog, the actuator or slide-bar to operate said wheel in the process of counting, the device which compels the wheel to assume its proper position if carried too far when operated, and the lever or mechanism acting upon said wheel to reset or bring it to zero independently of the device which causes it to assume its proper position as regulated by the holdback-dog.

9. The combination, substantially as hereinbefore set forth, of the trip-disks, their carrying devices or sleeves, one surrounding the other, and the independent springs, which compel the disks, respectively, to assume their proper positions when actuated by the prime mover or slide-bar.

10. The combination, substantially as hereinbefore set forth, of the trip-disks with the drag-springs acting thereon.

11. The trip-disks provided with notches or projections, to be acted on to reset the register, with the recesses therein to prevent movement of the disks beyond zero by the resetting mechanism.

12. The combination, substantially as hereinbefore set forth, of the trip-disks, having notches in their edges, the direction-plate, also provided with notches in its edge, and a lever having a jointed dog acting upon both the disks and plate to reset and shift them, respectively.

13. The combination, substantially as hereinbefore set forth, of the circular trip-disks, the eccentric direction-plate, and the jointed dog, acting first on the plate to displace its reading or sign, then on the trip-disks to bring them to zero, and then on the plate to complete its shifting movement.

14. The combination, substantially as hereinbefore set forth, of the circular trip-disks, the eccentric direction-plate, the jointed dog, acting first on the plate to displace its reading or sign, then on the trip-disks to bring them to zero, and then on the plate to complete its shifting movement, and the retaining-latch to automatically lock the actuating-dog and direction-plate in position.

In testimony whereof I have hereunto subscribed my name.

JOHN B. BENTON.

Witnesses:

WM. S. BEAMAN,

ANTHONY GREF, Jr.