W. J. STILLMAN.

FARE-REGISTER.

No. 183,341. Patented Oct. 17, 1876.

FIG. 1.

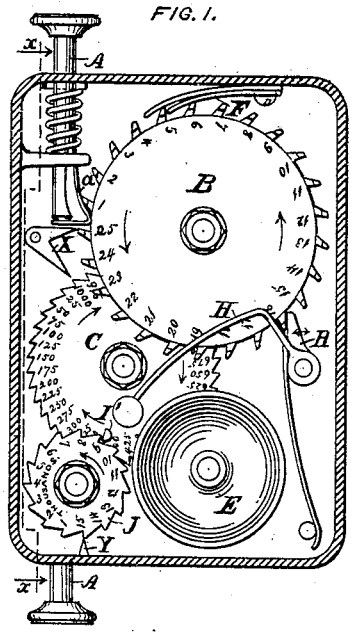


FIG. 2.

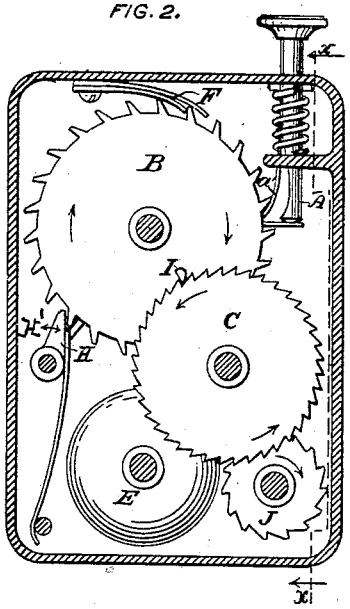


FIG. 3.

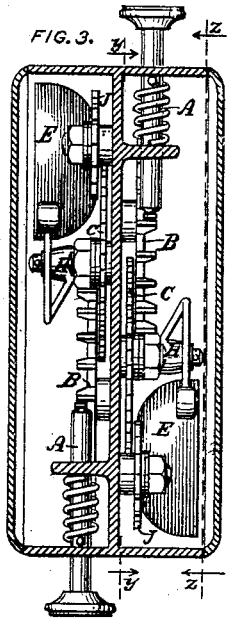
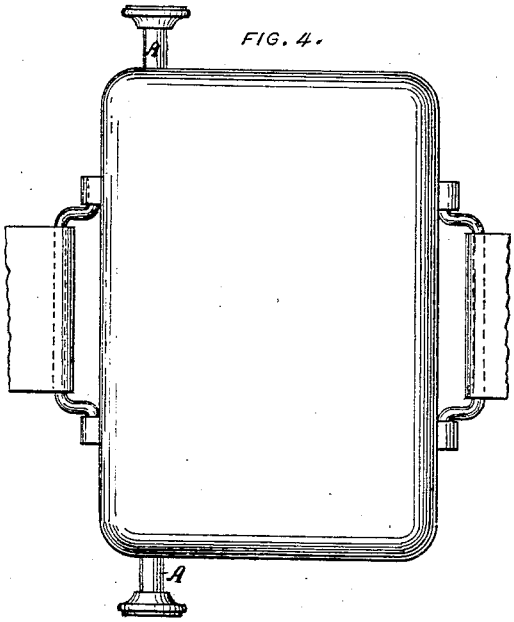


FIG. 4.



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IMPROVEMENT IN FARE-REGISTERS.

Specification forming part of Letters Patent No. **183,341**, dated October 17, 1876; application filed October 29, 1875.

To all whom it may concern:

Be it known that I, WAIT J. STILLMAN, of the city of Troy, in the county of Rensselaer and State of New York, have invented an Improved Fare Register and Indicator, of which the following is a specification:

The object of my invention is to afford railroad companies a cheap, durable, and reliable indicator, whereby they may with accuracy obtain the number of fares taken, and to furnish also a reliable counting or registering machine, to be used where a correct registry is desired.

My device is constructed and arranged for registering fares of two different kinds or denominations, and the mechanism for such purpose is similar, and held in position by means of center plate or seat.

Figure 1 is a plan of my device. Fig. 2 is a back view of Fig. 1. Fig. 3 is a longitudinal cross-section of my double set device, showing location of operating parts on each side of the center plate. Fig. 4 is a perspective view of my device, showing it closed and ready for use.

A is a thumb-spring, projecting through the end of the box, which engages with the spurs of the crown-wheel B by means of the knee-shaped spring *a'*, and furnishes the motive power for my device. By pressing down the spring-rod A the wheel B is caused to move one space, and until the next movement of the thumb-spring the wheel B is held in position by the double spring-pawl F. The wheel B has a pin or dog, I, (seen in Fig. 2,) upon its under side, which, at each complete revolution of the wheel B, engages in the notches of the wheel C, and turns the same one space. Wheel C has upon its upper surface a pin or dog, I', (seen in Fig. 1,) which, at each complete revolution of said wheel, engages with the notches in the wheel J, causing it to move one space. E is a gong or bell; H, a spring lever or striker, having a projection, H', which engages with the spurs of the wheel B, and also having a steel-spring attachment, held rigid by an iron or metal post behind the gong, which acts as a fulcrum for the bell lever or striker. X is an index-pointer, having two arms—one pointing to the figures on the wheel B, and the other to the figures on the wheel C. Y is an index pointing to the figures on wheel J.

The different parts of my device are constructed of some suitable light metal, and the case or box for the same, when two different kinds of fares or counts are to be indicated, has an open-work plate or partition fastened at or near the center, upon each side of which my device is attached. The several wheels are placed on small metal posts or axles firmly secured to the partition, the posts having a screw-nut and rubber washer, which serve to keep the wheels firmly in position, and prevent wheels C and J from turning automatically.

When in position the wheel B projects partly over the upper part of the wheel C, and the wheel J partly over the lower part of the wheel C. The wheels may be numbered in the same way, or in a similar manner to those shown in the drawing.

In the drawing I number the outer edge of the wheels as follows, viz: The wheel B is numbered 1, 2, 3, 4, &c., up to 25, a number being used to designate each spur of the wheel. The wheel C is divided into equal spaces, corresponding with notches communicating with the highest number on wheel B, 25, and then increasing in same proportion, 25, 50, 75, and so on up to 1,000. The wheel J is numbered 1, 2, 3, 4, &c., up to 15, indicating thousands.

Through the opposite ends of the case, on each side of the partition, I make an opening, through which I pass the thumb spring or rod, which also passes through another small perforated plate; and between this plate and the side of the case, around the thumb-rod, I place the spiral spring, as seen in Figs. 1 and 2. Over the wheel B, and attached to the casing, I place the double spring-pawl F, which works in the following manner: When the thumb-spring is pressed down its entire length, the short arm of the spring-pawl drops behind one of the spurs of the wheel B, thus holding the wheel in position. The object of the longer arm of the spring-pawl is to prevent the possibility of the gong being struck without the wheel B moving one entire space, which, without said longer arm, might be done by pressing down the thumb-spring a little

less than its entire length, and suddenly removing the pressure from the thumb-spring, the wheel would fly back, and the striker be thrown forward with sufficient force to sound the bell; but in operation with the longer arm of the pawl F this cannot be done.

The wheel B is of the form known as a "spur" or "crown" wheel, the spurs being made of such form as to engage with the knee-shaped spring on thumb-rod A. The bell-lever sets upon a metal post, at such a position that at each complete movement of the thumb-rod A the spurs of the wheel B strike the projection on the armature or sleeve of the bell-lever, forcing it back, and as soon as the spur has passed the projection the spring attachment throws the lever forward with sufficient force to strike the gong.

In preparing for registering fares or counting, the wheels are set or adjusted in the following manner: The wheel B is adjusted or moved around so that the number 25 is opposite to one arm of the double index, and the number 1,000 is indicated by the other arm, while the index Y points to figure 15 on wheel J. The wheels move in the direction indicated by the arrows. Upon pressing the thumb-rod down its entire length, the wheel B is moved one space, bringing the next number opposite the pointer, while by the same movement the bell or gong is sounded. By the first complete revolution of the wheel B, the dog or pin I, engaging with the notches of the wheel C, causes it to move one division, bringing the number 25 to the pointer. By the second revolution the wheel C is moved another space, bringing the number 50 opposite to the pointer, and so on by each revolution, until the lower arm of the double arm indicates one thousand, when, the wheel C having made an entire revolution, the pin I′ engages with the wheel J, moving it one space, and the index Y points to the number 1; the second revolution of the wheel C, in the same manner, moving the wheel J, so that the index points to the figure 2, indicating two thousand, and so on until the indicator points to the figure 15, indicating a count or registry of fifteen thousand. By increasing the spurs on the first or adding wheel and the notches on the second and third, or by changing sizes of the respective wheels, or by adding still another registering-wheel on the same principle of operation, any desired number might be counted and total amount registered, as herein set forth.

To increase the sound, I make small perforations in the case, near the gongs, and have small openings in the partition and wheels, while I make the gong susceptible of being struck and indicating different pitches of sound, to enable the hearer to discover which set of the device is being used.

The cover may be either hinged, sliding, or locked; and the case is supplied with handles, that the same may be readily and conveniently handled.

I claim—

The combination, with the case, of the crown-wheel B, provided with indicating-numbers, the notched wheel C, having stud I′, notched wheel J, bell E, spring-lever H, projection H′, double spring-pawl F, push-lever A, provided with coil-spring, and L-shaped spring *a′*, all constructed substantially as and for the purposes herein set forth.

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Witnesses:

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