(No Model.)

J. DANE, Jr.

FARE RECORDING REGISTER.

No. 443,988. Patented Jan. 6, 1891.

Fig. 1.

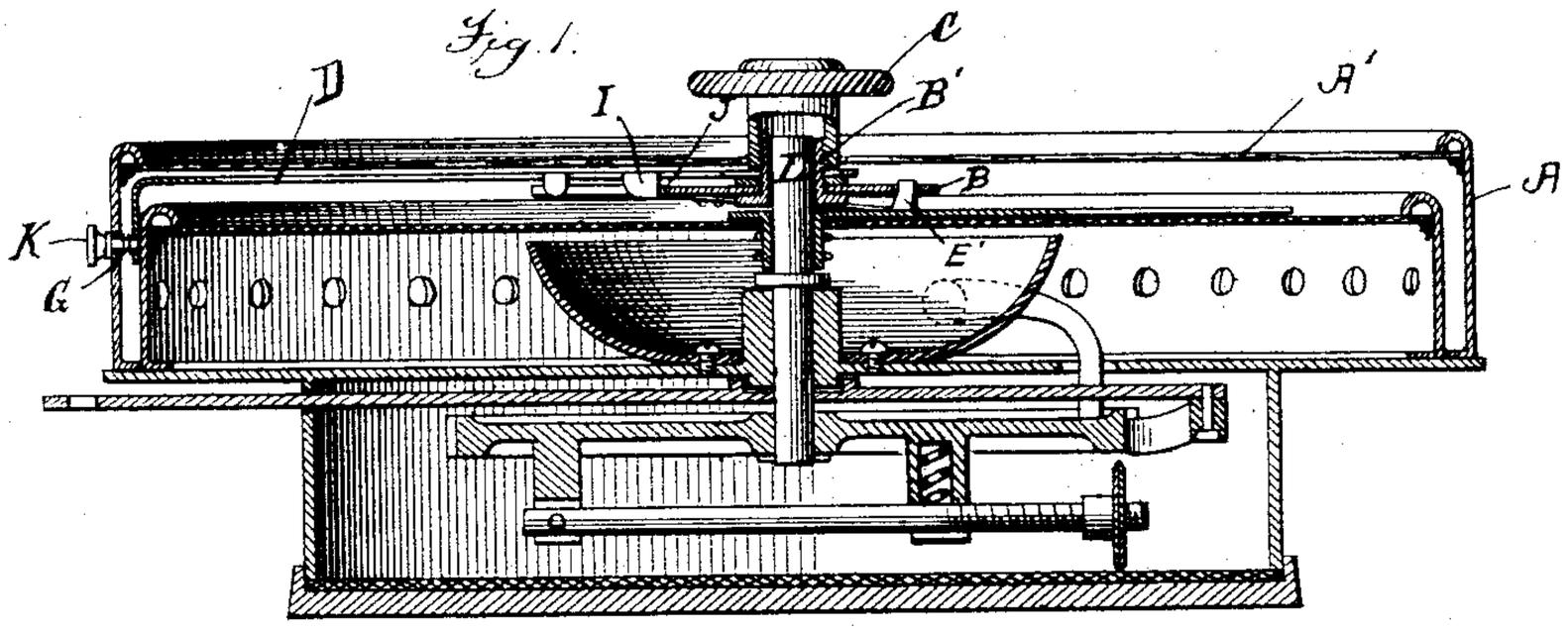


Fig. 2.

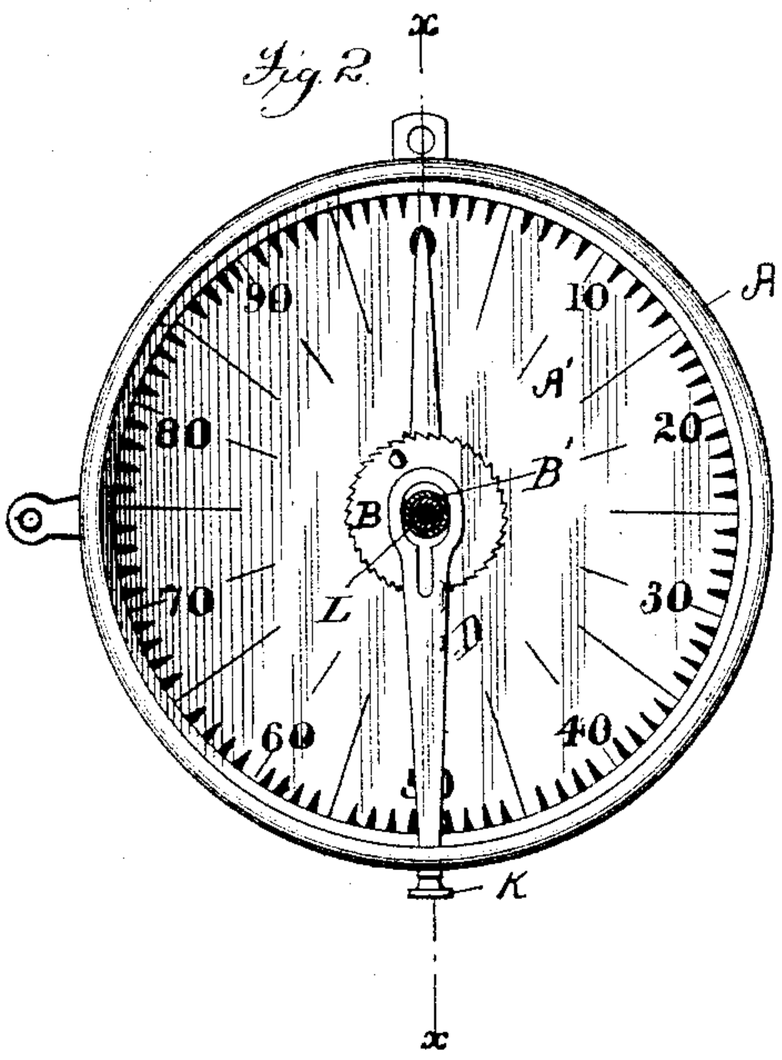


Fig. 4.

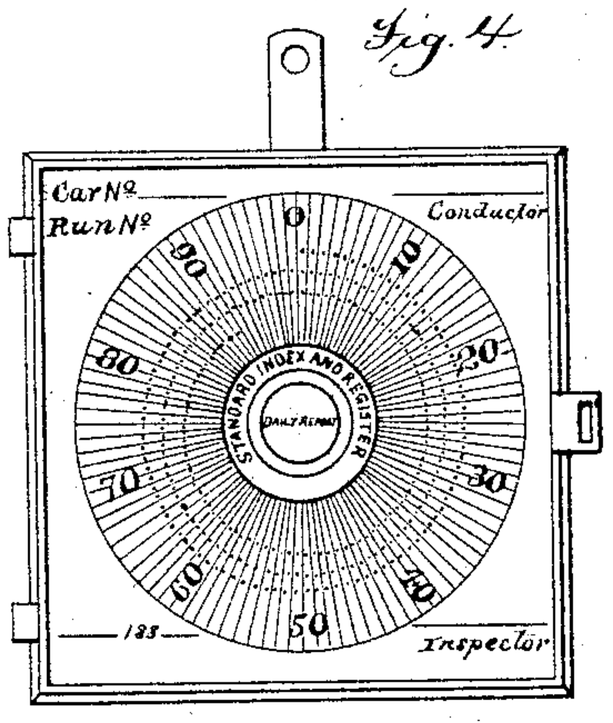
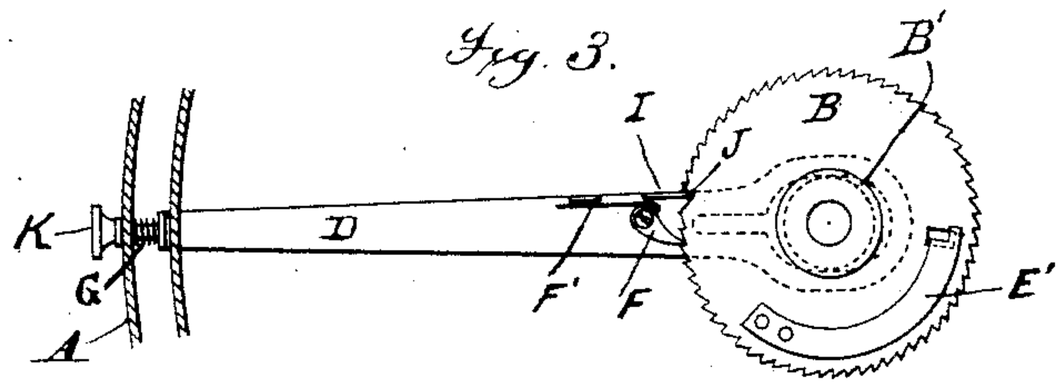


Fig. 3.



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JOHN DANE, JR., OF ORANGE, NEW JERSEY.

FARE-RECORDING REGISTER.

SPECIFICATION forming part of Letters Patent No. 443,988, dated January 6, 1891.

Application filed September 30, 1887. Serial No. 251,091. (No model.)

To all whom it may concern:

Be it known that I, JOHN DANE, JR., a citizen of the United States, residing in Orange, Essex county, and State of New Jersey, have invented a new and useful Improvement in Fare-Registers, of which the following, taken in connection with the drawings furnished, is a specification.

My invention relates to that class of registers more generally used in railway-cars and other vehicles adapted to record fares, trips, units, &c., although equally applicable to other uses where it is desirable to register the number of games, &c.; and it consists in the combination, with a dial, index-hand, and a resetting knob or handle, of a disk with a movable projection or catch secured to its under surface for engaging and carrying forward the index-hand and a bridge extending from the center to the periphery of the dial, provided with a flange serving as a catch and a pawl for engaging the teeth with which the edge of the said disk is provided to allow it to be advanced in one direction only. The said bridge or rod with its flange-catch is operated by a spring and knob located at its outer end, as will be hereinafter more fully explained.

The object of my invention is to provide means for easily resetting the index hand or pointer to zero in a quick and positive manner without the necessity of gaging it by the eye.

Referring to the drawings, Figure 1 represents a sectional view through the center of the register. Fig. 2 represents a front view of the dial, showing the upper surface of my improved device for resetting the index-hand; and Fig. 3 represents a view of the under surface of the bridge and disk with its catch detached from the register. Fig. 4 represents a detachable sheet or graduated paper dial upon which fares, trips, and units are recorded.

A represents the frame or outer rim of the register, and A′ the face or visible dial.

B is a disk provided with teeth, loosely supported upon a hollow post L, projecting above the face-surface of the dial located at the center of the said dial A′.

D is a bridge or rod, enlarged at the part connecting with the post and provided with an opening adapted to be loosely attached on the protuberance B′ of the said disk, the said protuberance being a hollow projection of the disk B independent of the said hollow post, and is threaded on its outer surface for connection with a knob or handle, so as to allow a slight end movement. C is a knob or handle which screws on the said protuberance B′, as a means for operating or turning the index hand or pointer. It is obvious, however, that the knob may be secured to the said protuberance by a pin, rivet, or otherwise. F is a pawl engaged by a spring F′ to hold it in a position to engage the teeth with which the said disk B is provided in a manner to allow the disk to be turned in a forward direction only. I is a flange on the said bridge D, which, as the index-hand reaches the starting-point indicated at zero on the dial, catches in a notch located at J in the disk B, which is cut or notched in a direction or incline opposite to the ratchet-teeth before referred to. G is a coiled spring located on the rod D, (more clearly shown in Fig. 3,) adapted to exert an elastic pressure endwise on the bridge or rod D. It is obvious, however, to those skilled in the art that a flat or other form of spring may serve equally well for the purpose desired. E′ is a spring secured at one end to the under side of the said disk B, its opposite or free end extending at an incline therefrom. A portion of the free end of said spring is bent at an angle (see Fig. 3) adapted to protrude through an opening in the disk B, allowing the spring to lie close to the surface as the index-hand passes over it and then springs up, forming a stop or catch to prevent the index-hand from being turned back and to engage it when being reset. Adjacent to said stop or catch is a slight projection (more clearly shown in Fig. 3) adapted to prevent the index-hand from slipping over or back of the said spring when being carried forward.

I sometimes employ a pin in lieu of the bent-up portion of the spring-catch, which serves equally well, although more expensive to construct. The same is true respecting the catch with which the bridge is provided.

The operation of my improved device is as follows: When the index hand or pointer is

to be reset, pull the rod D outward by means of the knob K, which is secured thereto, thus drawing the flange or projection I on the rod D from the notch J and allowing the disk B to be turned forward by means of the knob C. When turning the disk B, the projection with which the spring E′ is provided (in a manner previously described) engages the hand and carries it forward till it reaches zero, when the flange I catches in the notch J and prevents the index-hand from being moved any farther by the knob until the flange I has been again withdrawn from the notch J.

I claim—

1. In a registering device, the combination, with a supporting-frame, a dial, an index-hand, and a rotating knob, of a disk adapted to be operated by said resetting-knob, loosely mounted on a post or projection, and provided with a movable or spring projection E′, adapted to engage the said index-hand, substantially as and for the purpose set forth.

2. In a registering device, the combination, with a supporting-frame, a dial, an index-hand, and a knob or handle projecting through the outer face of the dial for advancing the index-hand, of a disk adapted to be operated by said knob or handle, said disk being provided with a movable spring projection for engagement with said index-hand, a stop depression or notch in said disk, and a movable bar or bridge for engaging said stop depression or notch, substantially as described, and for the purpose set forth.

3. In a registering device, the combination, with the supporting-frame, the dial, the index-hand, and a resetting-knob, of a rotary ratchet-disk, a stop depression or notch in said disk for the purpose specified, a rod or bridge, a flange or projection on said rod or bridge for engaging said stop depression or notch, and a spring-actuated pawl secured on said bar or bridge for engaging the said ratchet-disk in its advance movement, substantially as described, and for the purpose set forth.

4 The combination, in a registering device, of a supporting-frame, a dial, an index-hand, and a resetting-knob, a disk adapted to be operated by said knob, provided with a stop projection and with a movable spring projection for engagement with said index-hand, and a rod or bridge for engagement with said stop projection to limit the movement of said disk, substantially as and for the purpose set forth.

5. In a registering device, the combination, with the supporting-frame, a dial, and an index-hand, of a resetting-knob, a disk attached to and operated by the said resetting-knob and provided with a spring-catch for engaging and carrying the said index hand in one direction only, a stop depression or notch, and a bar or bridge provided with a movable spring projection, substantially as described, and for the purpose set forth.

6. The combination, in a recording-register provided with a dial and index-hand, of a rotary ratchet-disk provided with a resetting knob or handle and a spring-catch, substantially as described, a movable rod or bridge provided with a knob or handle and a spring for actuating the same, and a flange or projection for engagement with a notch in said rotary disk, substantially as described, and for the purpose set forth.

JOHN DANE, JR.

Witnesses:
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