G. C. KING.

Counting-Register.

No. 215,133. Patented May 6, 1879.

Fig. 1.

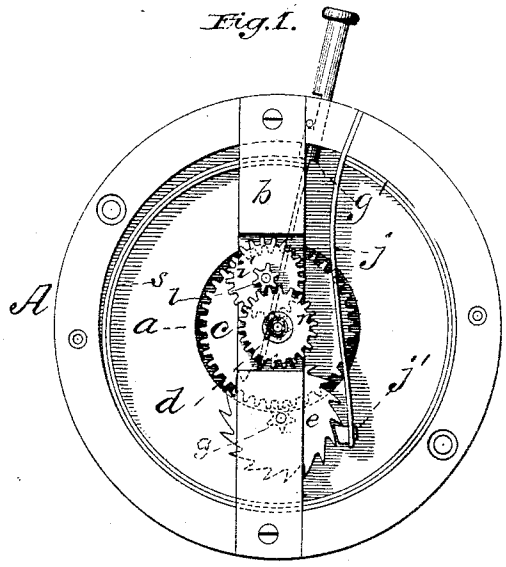


Fig. 2.

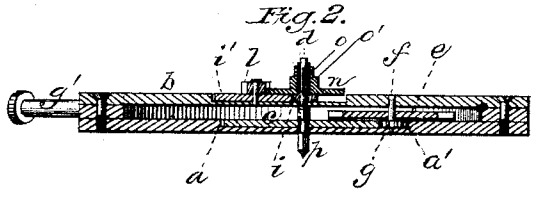
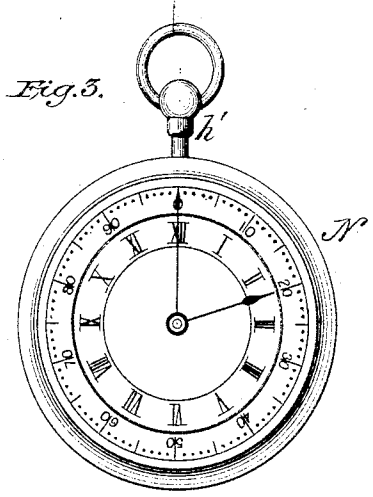


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE

GEORGE C. KING, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN COUNTING-REGISTERS.

Specification forming part of Letters Patent No. **215,133**, dated May 6, 1879; application filed February 26, 1879.

To all whom it may concern:

Be it known that I, GEORGE CHRISTIAN KING, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and valuable Improvement in Registering-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a top view of the registering mechanism with the case off. Fig. 2 is a central section of the same, and Fig. 3 is a face view of the register-case.

This invention has relation to improvements in devices for registering fares on railroad-cars, and for tallying grain or other articles.

The nature of the invention consists in the construction and novel arrangement of parts, as hereinafter shown and described.

In the annexed drawings, the letter A designates a metallic box hollowed out on one side to form a circular recess, in which is a concentric recess, *a*. Extending diametrically across the box *a* is a flat metallic bar, *b*.

c indicates a gear-wheel arranged in recess *a*, and secured rigidly upon a shaft, *d*, one end of which is journaled in the casing, and the other in bar *b* aforesaid. At one side of recess *a* is a second recess, *a'*, opening into it, the object of which will be hereinafter more fully set forth.

e indicates a ratchet-wheel secured, in any suitable manner, to a suitable shaft, *f*, that is journaled at one end in bar *b*, and at the other in the box A. On the under side of this ratchet-wheel is a gear-wheel, *g*, that engages the gear-wheel *c* through the opening between recesses *a* and *a'*. This ratchet-wheel is actuated by means of a plunger, *g'*, that extends through the annular wall of the box A, and is finished off precisely like the stem of a watch, as seen at *h'*. This plunger has free endwise movement through the wall of box A, and after each operation is retracted by means of a spring, *s*, or a combination of springs.

The ratchet-wheel is controlled by a spring-pawl, *j*, having on its end a finger, *j'*, that at the termination of each inward stroke of the plunger springs into the next serration of the ratchet-wheel aforesaid, and holds it against backward rotation. The shaft *d* extends through bar *b* a sufficient distance, and is provided outside of the said bar with a pinion, *i*, that engages a small gear-wheel, *i'*, having its bearings on bar *b*, and provided on its upper side with a pinion, *l*, that engages a second gear-wheel, *n*, on the post *d*.

The pinion *i* has a tubular sleeve, *o*, and is passed over post *d* with its sleeve upward, and the gear-wheel *n* has also a sleeve, *o'*, which is passed over the sleeve *o*, as shown in Fig. 2. Motion is communicated to wheel *i'* from post *d* by means of the pinion *i*, and to wheel *n* through the pinion *l* of wheel *i'*.

The upper ends of the post *d* and of the sleeve *o'* of wheel *n* extend through the center of the dial-plate, and have secured thereon, respectively, the units-hand and the hundreds-hand.

The relation between the various gears of this mechanism is such that while the units-hand moves completely around its dial and registers one hundred, the hundreds-hand traverses but one space or division of the twelve on the hundreds-dial. This is inclosed in a watch-case, N, and in its appearance so greatly resembles a watch that it may be used to register the number of passengers in a train or street-car without danger of being noticed by a conductor. It may also be conveniently used in tallying sacks of grain, staves, bales of cotton, and other like articles of merchandise.

The post *d* extends through the back of the case, and is provided with a seat, *p*, adapted to be used in connection with a key to turn the hands back to their commencing-points on their respective dials.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the recessed case A, having bridge *b* and communicating recesses *a a'*, the gear-wheels *c g* in recesses *a a'*, respectively, and secured to the shafts *d f*, the ratchet-wheel *e*, secured to gear *g*, the spring-pawl *j*, the gear-wheel *i'*, having pinion *l*, and re-

cessed in the bridge *b*, the pinion *i* on shaft *d*, engaging the gear *i'*, the gear-wheel *n*, having shoulders *o o'*, rotating on shaft *d*, and engaging the pinion *l*, and the spring-retracted stem *g'*, extending through the case and engaging the ratchet-wheel aforesaid, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

GEORGE CHRISTIAN KING.

Witnesses:

GEORGE W. SELTZER,
ALLEN H. GANGEWER.