(No Model.)

C. S. MORRIS.

CONDUCTOR'S REGISTER.

No. 353,078. Patented Nov. 23, 1886.

Fig. 1.

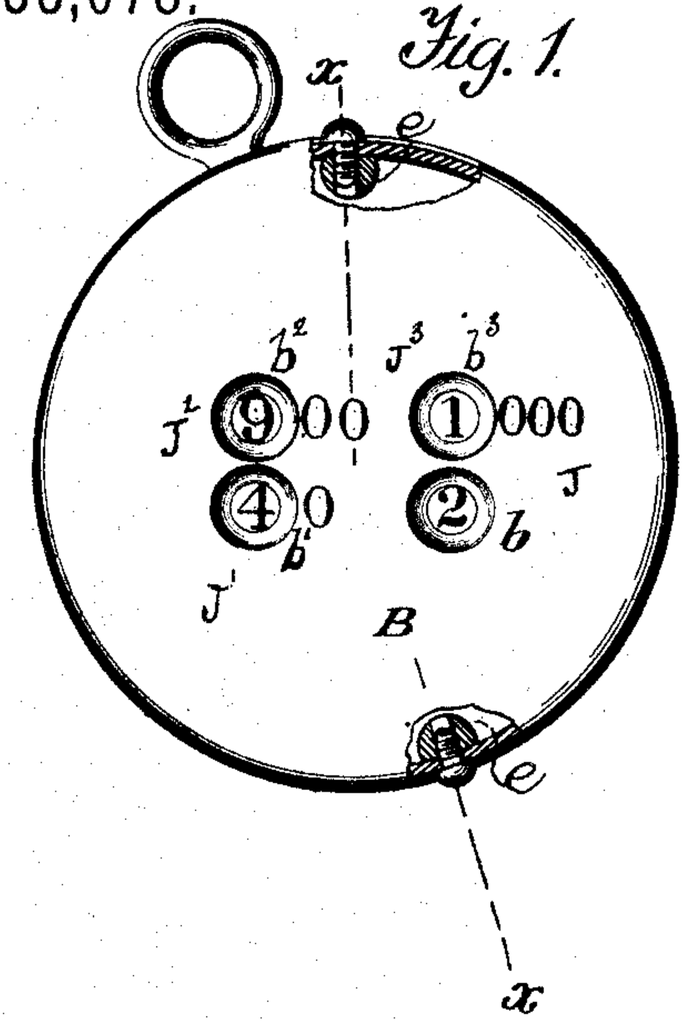


Fig. 2.

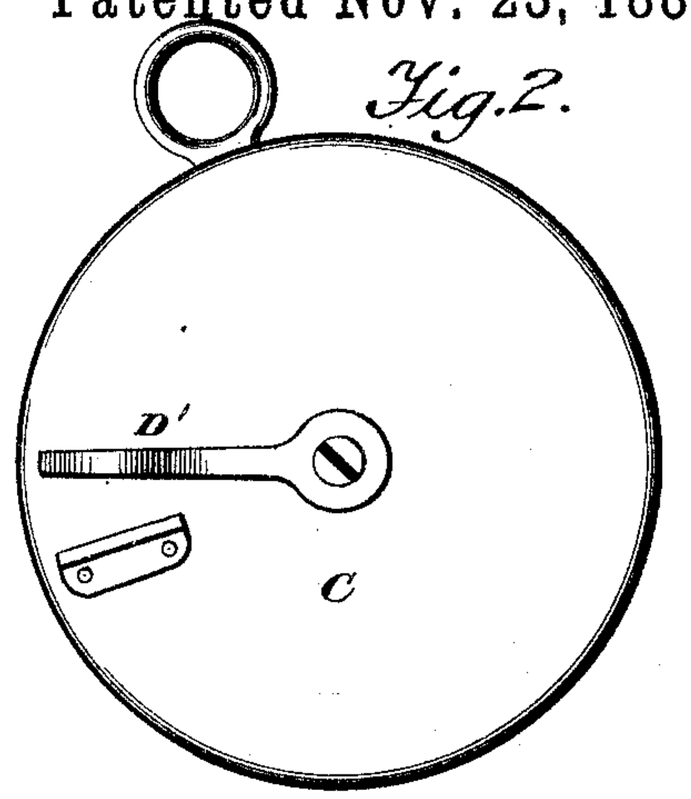


Fig. 3.

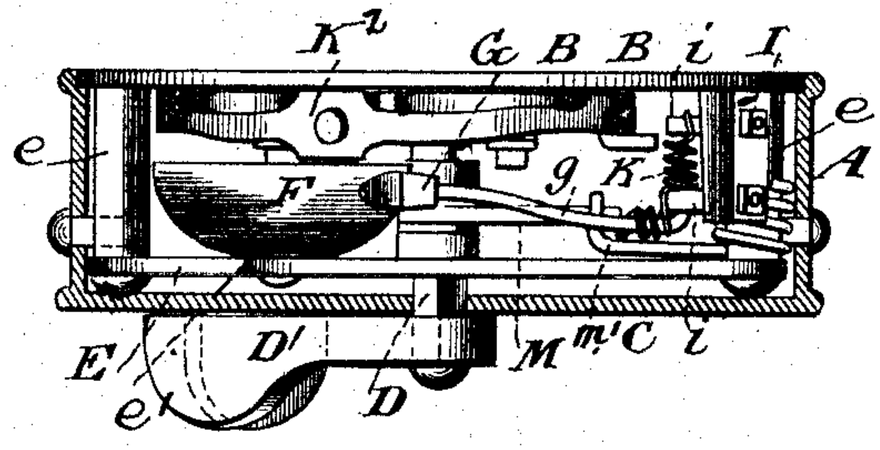


Fig. 4.

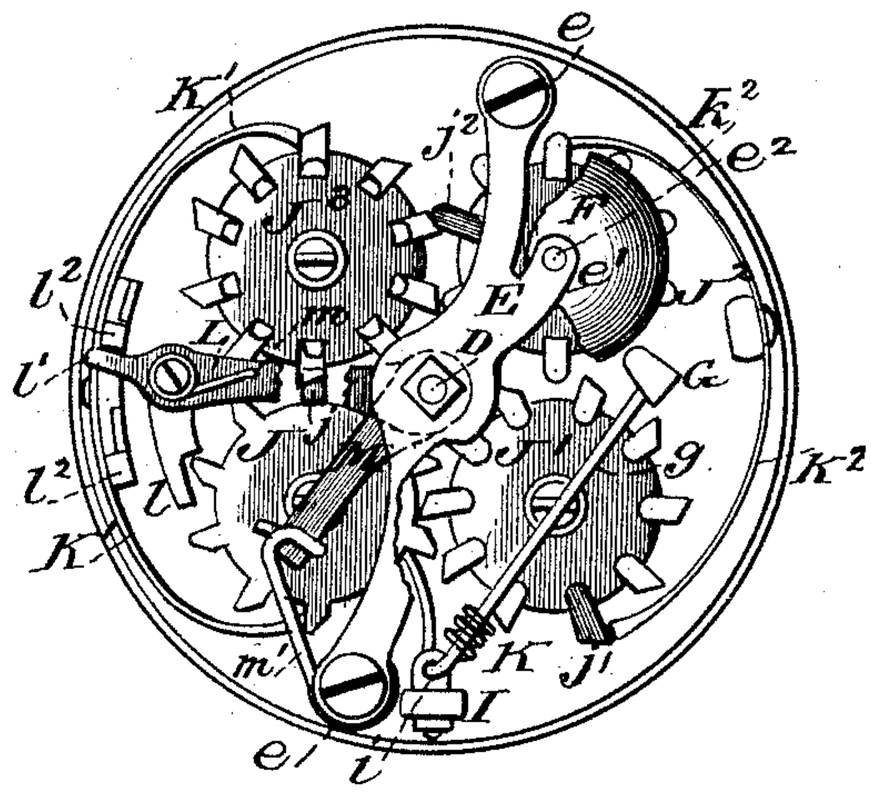


Fig. 5.

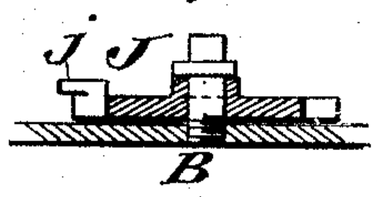


Fig. 6.

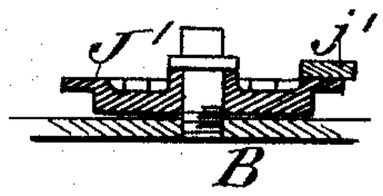


Fig. 7.

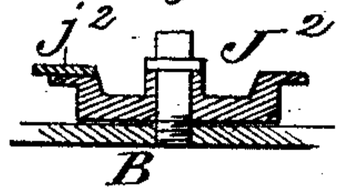
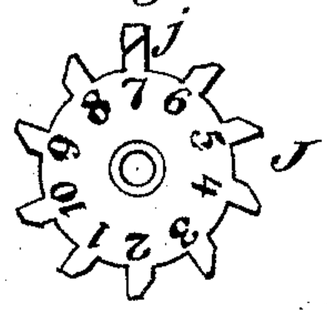


Fig. 8.



Witnesses.
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R. S. Grant

Inventor.
C. S. Morris,
Per
Thomas P. Simpson
atty

UNITED STATES PATENT OFFICE.

CORNELIUS S. MORRIS, OF LANSINGBURG, NEW YORK.

CONDUCTOR'S REGISTER.

SPECIFICATION forming part of Letters Patent No. 353,078, dated November 23, 1886.

Application filed March 17, 1886. Serial No. 195,519. (No model.)

To all whom it may concern:

Be it known that I, CORNELIUS S. MORRIS, a citizen of the United States, residing at Lansingburg, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Conductors' Registers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention will first be described in connection with the drawings, and then pointed out in the claim.

Figures 1 and 2 are plan views, respectively, of the opposite sides of the case. Fig. 3 is a cross-section on line *x x* of the register. Fig. 4 is a plan view of the mechanism on the inside of the case. Figs. 5, 6, and 7 are detail cross-sectional views of the wheels. Fig. 8 is a plan view of one of the wheels, showing the numerals.

In the drawings, A represents the case, and B C the opposite faces thereof. D is a central and main shaft, which revolves in a step-bearing on the face-plate B and in a cross-bar, E, which is screw-clamped to the tops of the opposite posts *e e*. This cross-bar has a small branch, *e'*, to which is fastened the upper end of the post e^2, which carries the bell F, against which strikes the hammer G. The latter is provided with a helve, *g*, which is bent at right angles to enter the eyes *i i* in the post I. The end of the helve is then again bent at right angles to enter between the cogs on the unit-wheel J, and is provided with an actuating-spring, K. The unit-wheel J has one tooth, *j*, of its ten cogs raised, so that at each complete revolution it will strike the tooth nearest to said wheel on the wheel of tens. (Marked J'.) The latter has one tooth, j', of its ten raised above the others, to strike once during its revolution a cog of the "hundreds-wheel" J^2, and the wheel J^2 has one tooth, j^2, of its ten teeth raised above the others, so as to strike once during a revolution a tooth on the "thousands-wheel" J^3. Thus each wheel has its cogs raised in succession above the preceding one, as seen in Figs. 5, 6, and 7, so that units, tens, hundreds, and thousands may be counted, the central shaft, D, being turned by the conductor's lever D' until the hammer strikes the bell and a unit is marked or shown by a numeral at the hole *b* on the face B, or a numeral representing tens is shown at the hole *b'*, or one representing hundreds at the hole b^2, or one representing thousands at the hole b^3, each of the wheels being provided on their faces contiguous to the holes with numerals 1 to 9, inclusive, and a 10 arranged in numerical order around the wheels, one for each cog, as shown in Fig. 8, and adapted to be displaced, one at a time, through said holes, to register units, tens, hundreds, or thousands, as shown.

K' K^2 are detent spring-pawls, which are double, each one serving for two wheels.

The arm L, which is fast on the main shaft D, has a spring-pawl, *l*, taking into the teeth of wheel J, and an end extension, *l'*, which travels between the stops l^2 l^2, so that no one movement forward of lever D' shall move the unit-wheel more than the distance between two cogs, or one-tenth of the circumference.

M is an arm integral with the arm L, and of course moved simultaneously with it, so as to operate the hammer and cause it to strike the bell.

Arms L M are retracted by spring *m'*, coiled about one of the posts *e* and bent around the arm M.

It will be perceived that the pawl *l* is notched or rabbeted under the front end, so as to bear on as well as against each tooth, and is rigidly connected with a vertical pivot passing through arm L. Around this pivot is coiled the spring *m*, one end of which is fastened to arm L, and whose sole object is to hold the pawl down on the wheel by an elastic pressure. The entire object of the spring *m'* and the arm M is to throw back the arm L after it has made a forward movement.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

In a conductor's register, the combination, with the unit-wheel and bell, of a central shaft,

D, having two fast arms, L M, of which the arm L carries the pawl *l* and extension *l'*, the casing provided with the stops l^2 l^2, the spring *m'*, the hammer G, having the helve *g*, passing through eyes of post I and between the cogs of wheel J, and the spring K, as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

CORNELIUS S. MORRIS.

Witnesses:
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