J. A. J. REDIER.

WATCHMAN'S TIME DETECTER.

No. 189,785. Patented April 17, 1877.

Fig. 1.

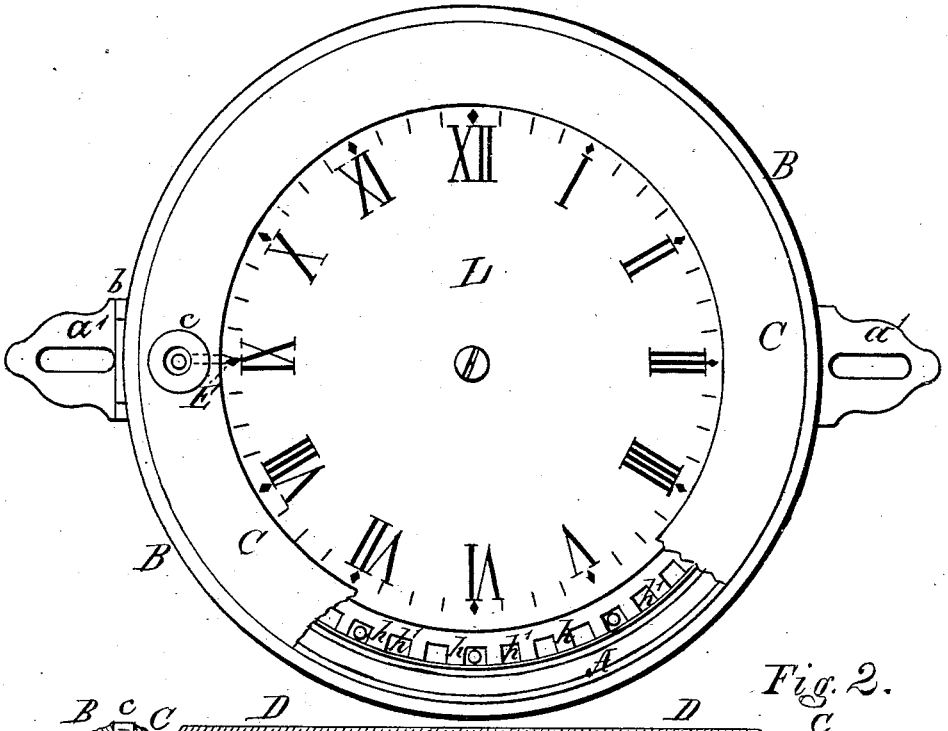
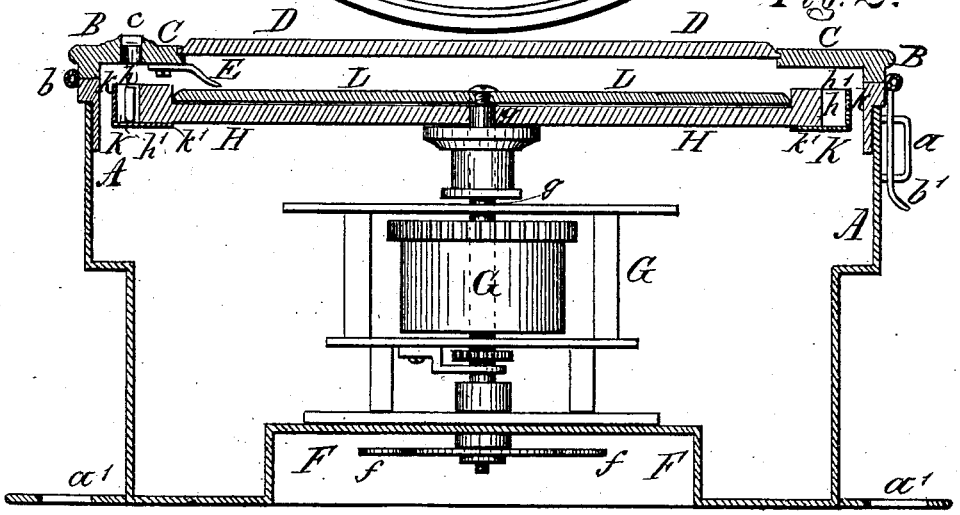


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOSEPH A. J. REDIER, OF PARIS, FRANCE.

IMPROVEMENT IN WATCHMEN'S TIME-DETECTERS.

Specification forming part of Letters Patent No. **189,785**, dated April 17, 1877; application filed February 1, 1877.

To all whom it may concern:

Be it known that I, JOSEPH ANTOINE JEAN REDIER, of the city of Paris, in the Republic of France, have invented certain new and useful Improvements in Watchmen's Time-Detecters, of which the following is a specification:

My invention consists in the application of a toothed wheel mounted upon the main arbor of a clock-movement, and making one revolution in every twelve hours, the teeth of which are so arranged that the space between each two teeth is equal to the depth or thickness of such teeth, said toothed wheel being combined with an annular rim or casing of thin sheet metal, and so arranged that each space between two teeth forms a receptacle, open at top only, for the reception of a peg or ball, or similar object, or a series of such, dropped into said receptacles through an aperture in the upper part of the clock case or lid.

My invention further consists in the application of a revolving face or dial in combination with the toothed wheel and a stationary or fixed hand or index to indicate the hour.

In the accompanying drawings, Figure 1 is a top-plan view, a part of the casing being broken away; and Fig. 2 is a vertical transverse section of the apparatus, showing that much of a clock mechanism to illustrate the invention.

In the drawings, A represents the casing, made of any kind of material, preferably of metal, and B is a lid or cover, hinged to said casing at *b*, and said lid is provided with a flap, *b'*, or a latch fitting over a staple, *a*, on the casing, so as to adapt the lid to be locked to the casing A by means of a padlock, or any other suitable arrangement may be employed to effect this purpose, and prevent the watchman from tampering with the dial. The lid or cover B has an annular flange or rim, C, projecting toward the face of the dial, and said rim is provided with a suitable aperture, *c*, for a purpose hereinafter described; and D is the glass face, held in position by the flange or rim C of the lid B. E is a fixed hand or index projecting from the flange C over the dial or face L. The casing A is further provided with projecting slotted ears *a'*, by means of which it may locked to staples affixed to a table, as will be readily understood. F is an annular recess, forming a ledge or seat for the clock-movement G, and a receptacle wherein the key *f* for winding up the clock-work is concealed and securely locked in, to prevent its being tampered with.

G is the clock-work, and *g* the main arbor, at the upper end of which is rigidly mounted a toothed wheel, H. This toothed wheel may have any desired number of teeth, and is here provided with forty-eight of such teeth, *h*, corresponding to the quarter-hours of the dial, and consequently forming an equal number of spaces *h'* between each two teeth, *h*. K is a metallic flanged plate, affixed to the under side of the toothed wheel H, in such manner that the flange *k* incases the periphery of the wheel, while the plate *k'* covers the lower part of the teeth *h* and spaces *h'*, thus forming a series of receptacles or chambers, open at top only for the reception of a small ball or a peg, as may be desired, which is to be inserted by the watchman at the regulated or determined hours, said ball or peg being thrown into the aperture *c*, in the annular flange or rim C, to record the hour the watchman made his round. L is the dial which is pivoted to the outer end of the abor *g*, within a recess in the wheel H, and is so arranged as to revolve with said wheel, while it may be turned or revolved independently of such wheel for the purpose of setting it. Thus the dial itself is set, while the hand or index is fixed, the dial revolving in a direction opposite to that of the hands of an ordinary clock when carried along with the arbor, to record the hours regularly and correctly, as will be readily understood.

I would have it understood that I do not wish to limit myself to the number of teeth on the wheel H, as here described, and, as above stated, any desired number may be formed on the wheel, either to correspond with the hours or fractions thereof.

When it is desired to preserve a daily record of the watchman's time, pointed pegs may be used, and a counter-dial, of pasteboard or paper, pressed upon the pegs when the record is to be made, said pegs either perforating or puncturing the counter-dial at the hours indicated by the detecter, the pegs, as will be un-

derstood, being placed with their points upward, projecting slightly over the face of the wheel H.

The teeth on the wheel H are so arranged that the width or space between two teeth is equal to the depth of such teeth, thus forming perfectly square receptacles, though this is not essential, but is preferable when pegs instead of spheres are used.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a watchman's time-detecter, a wheel, H, recessed in the center to receive the dial, and having its periphery toothed and provided with an annular flanged plate to form a series of revolving receptacles or chambers, substantially as described, for the purpose specified.

2. The main arbor of a clock-movement, the wheel H having a series of chambers formed around its periphery, and a recess for the reception of the dial, the dial L, lid B, having a flange or rim C, provided with a perforation or aperture, *c*, and a stationary hand affixed to said flange C, all combined, constructed, and operating substantially as described, for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of December, 1876.

REDIER.

Witnesses:
E. PAGE,
MAXIMILIEN.