

A. MEYER.

WATCHMANS' TIME-DETECTOR.

No. 173,036.

Patented Feb. 1, 1876.

Fig. 1.

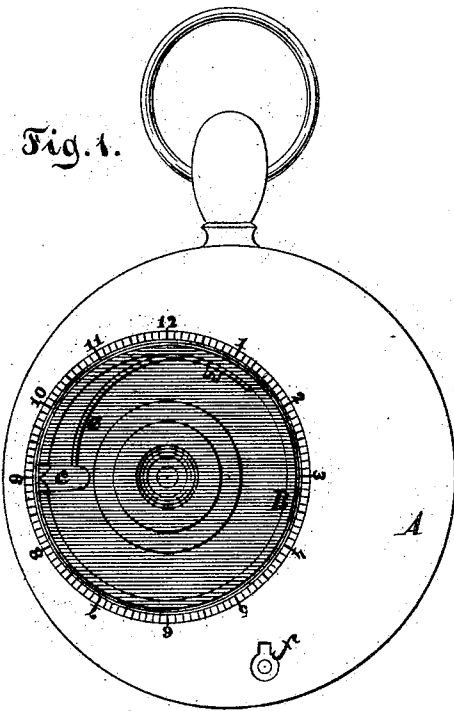


Fig. 2.

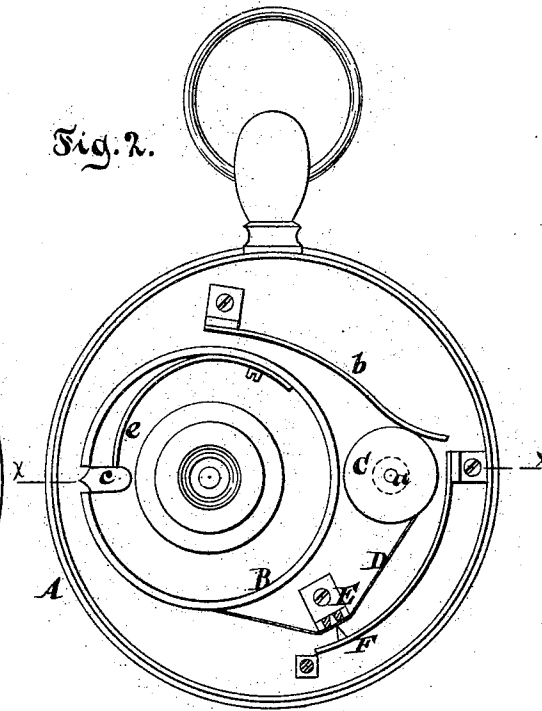


Fig. 4.

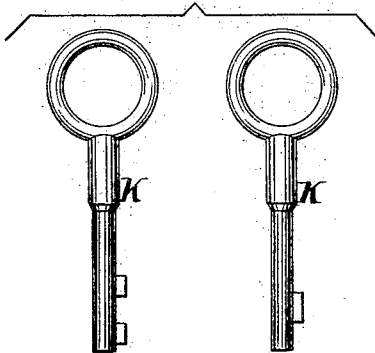


Fig. 3.

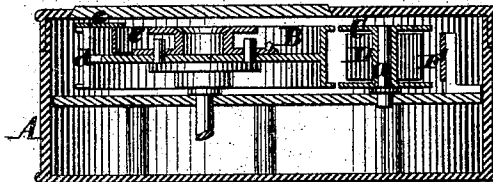
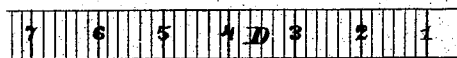


Fig. 5.



Witnesses.

Otto Skjefeland
Chas. Wahlen.

Inventor.

Anton Meyer
per
Van Santvoord & Hauff
Attorneys.

UNITED STATES PATENT OFFICE.

ANTON MEYER, OF STUTTGART, GERMANY.

IMPROVEMENT IN WATCHMEN'S TIME-DETECTERS.

Specification forming part of Letters Patent No. **173,036**, dated February 1, 1876; application filed January 4, 1876.

To all whom it may concern:

Be it known that I, ANTON MEYER, of Stuttgart, Germany, have invented a new and Improved Watchman's Time-Detector, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 represents a face view of my detector when closed. Fig. 2 is a plan of the same when the cover is removed. Fig. 3 is a transverse section of the same in the plane x , Fig. 2. Fig. 4 shows two of the keys which may be used for operating my detector. Fig. 5 shows a portion of the strip which receives the marks.

Similar letters indicate corresponding parts.

This invention relates to a watchman's time-detector, in which a long strip of paper or other suitable material is used, that is marked with the time for any number of days, and which is taken from a reel and gradually wound by clock-work on a disk. On its way to this drum the recording strip passes over a support situated opposite to a series of marking devices, so that by operating these marking devices certain marks are produced on the recording-strip, indicating the time when the marking devices have been operated. With the drum and the recording-strip is combined an index, which co-operates with a dial-plate marked on the cover of the detector, so as to indicate the time of the day, and which is provided with a clamping-toe for securing the recording-strip to the drum.

In the drawing, the letter A designates the case of my detector, which may be made of any convenient form or shape. In the case is mounted a drum, B, which is rotated by clock-work, so that it completes one revolution in twelve hours. On the side of this drum, and firmly secured to the case A, is an arbor, a , which forms the bearing for a reel, C, that contains the recording-strip D. This strip is made of paper or any other suitable material, and it is of considerable length, so that it will last for a number of days. On this strip are marked the hours of the day, so that the several sections correspond from twelve to twelve hours to the circumference of the drum B. A friction-spring, b , bears on the circumference of the roll formed by the recording-strip, so

as to keep the same at the proper tension. On the drum B is secured an index, c , which points on a stationary dial marked on the cover of the case A, whereby the time of the day can be read off at all times. Said index is provided with a shank, d , Fig. 3, which projects down in a groove formed in the circumference of the drum B. A spring, e , presses this shank inward. When the shank is raised out of its groove the loose end of the recording-strip can be passed between it and the circumference of the groove, and, by allowing the shank to return, the end of the recording-strip is firmly clamped to the drum, so that the same will be gradually drawn off from the reel C and wound on the drum, the latter being caused to revolve by the clock-movement, as previously stated. As the recording-strip is drawn from the reel to the drum, it passes over a support, E, which is firmly secured to the case A. Opposite to the support are situated the marking devices F, which are, by preference, secured each to a separate spring, and which are so situated that, when they are in their normal position, the recording-strip can be drawn freely through between them and the support E. In the cover of the case A is a key-hole, f , through which keys K can be introduced. The bits of these keys are so formed that each acts on a different marking device or on a different combination of such marking devices, and whenever a key is inserted into the key-hole and turned round, the appropriate marking device or devices are actuated and caused to produce the desired marks on the recording-strip.

In the example shown in the drawing, the marking devices are made in the form of sharp points, the support being provided with appropriate recesses to allow said points to perforate the recording-strip, and, by turning one of the keys, the corresponding marking device is forced back against the action of its spring, and, when released by the key, it flies forward, and thereby the desired mark is produced. The marking devices may, however, be made in the form of letters or figures, and so arranged that they are pressed up against the support by the direct action of the keys. Before starting the clock-movement the record-

ing-strip is so adjusted that the mark on it, which is situated on the support E and opposite to the marking devices, corresponds to the time of the day as indicated by the index c. The clock-movement is then set going, and after the cover has been locked the detector is handed to the watchman. Different keys are secured one in each station on the beat of the watchman, and as he reaches a station he inserts the key and turns it, and thereby the exact time, when the various stations have been visited, is recorded on the strip D.

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

1. The combination, with the drum B, reel C, and recording-strip D, of an index, c, and a stationary dial-plate on the case A, substantially as set forth.

2. The combination, with the drum B, reel C, recording-strip D, and index c, of a spring-clamp, d, for securing the end of the recording-strip to the drum, substantially as described.

3. The combination, with the drum B, reel C, recording-strip D, and marking devices F, of a support, E, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of November, 1875.

ANTON MEYER.

Witnesses:

EWALD WEISS,
WILHELM NILL.