

J. DUNNING.
WATCHMAN'S TIME DETECTOR.

No. 113,988.

Patented Apr. 25, 1871.

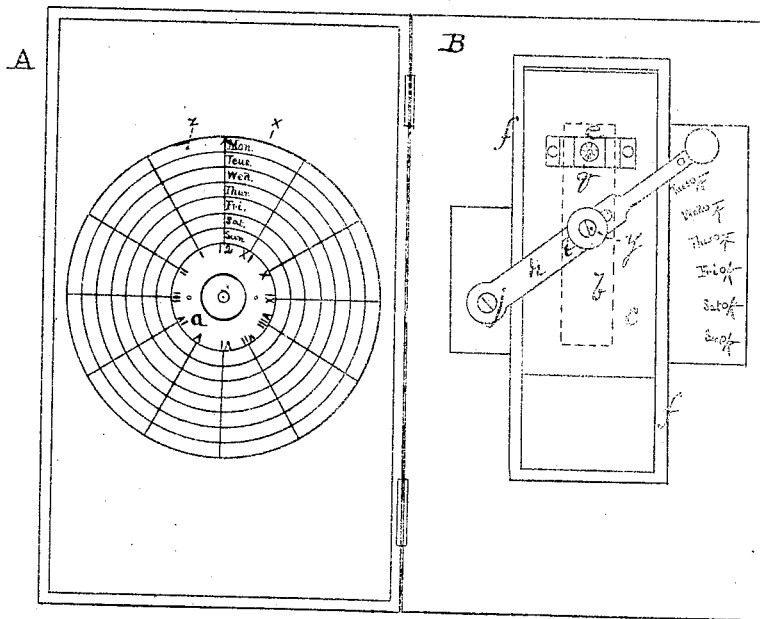
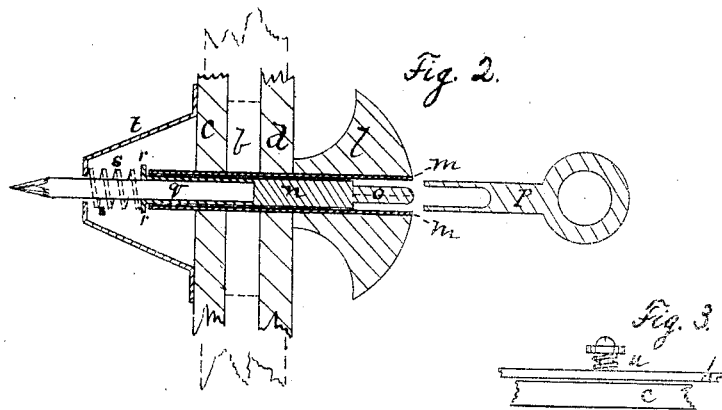


Fig. 1.

Witness
John J. Allen
Fred Foster

Inventor
James Dunning
By [Signature]

UNITED STATES PATENT OFFICE.

JAMES DUNNING, OF BANGOR, MAINE.

IMPROVEMENT IN WATCHMAN'S TIME-DETECTERS.

Specification forming part of Letters Patent No. 113,988, dated April 25, 1871.

To all whom it may concern:

Be it known that I, JAMES DUNNING, of Bangor, in the county of Penobscot and State of Maine, have invented a new and useful Improved Watchman's Time-Detector; and I hereby declare the following to be a full, clear, and exact description of the same, which will enable others to make and use my invention, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 is a front view with the door open; Fig. 2, a section of the sliding panels and marking device. Fig. 3 shows the spring of the lever.

Same letters show like parts.

I am aware that there are several devices for checking the time of watchmen and telling when they visit the several points upon their beats; but these are all expensive and of complicated construction.

The object of my invention is to produce a detector that will perform its work with accuracy, and at the same time be simple, durable, and comparatively cheap.

By reference to the drawing I will now explain my device.

I inclose in a secure box, A, a clock of any desired construction, capable of running eight days, if desired. The hands of the clock being removed, I place upon the arbor of the hour-hand the false dial *a*, in such a way that at 12 o'clock the figure 12 on the false dial will correspond with the same figure on the dial of the clock, and so that it will revolve as the hour-hand would have done. This dial *a* is numbered backward, as will be seen, so that as the clock is set in motion, when an hour passes, the figure 1 of the false dial will point to the figure 12 on the dial of the clock, showing 1 o'clock, and so with the other hours. This false dial is also divided by concentric circles into seven rings or portions, which are marked with the days of the week, the outer circle being Monday, second Tuesday, &c.

The door B (shown open in the drawing) has a space, *b*, (seen in dotted lines,) cut from its center. On each side of the door are the slides *c d*, (see section,) which are connected by fastenings which pass through the hole *b*. These

slides move together in a vertical plane between the guides *f*. Through the slides *c d*, at *e*, passes the marking device, and at *g* they are attached by the pivot *y*, passing through the slot *i* in the lever *h* to said lever, the fulcrum of which is at *j*, at one side of the slides.

The other end of the lever has a cavity for the pins *k k*, &c., which are arranged upon the opposite side of the slide *c*, and also lettered to correspond with the days of the week. They are at such a distance from each other that when the lever is moved to the next one in order the center of the lever, where it is attached to the slides, moves a distance just equal to the space between the centers of the concentric circles of the false dial *a*, and of course carries the slides and marker attached to them with it.

The marking device is shown at Fig. 2 in section, and is very simple in construction and not liable to get out of order. To the outer slide, *d*, is attached the knob *l*, and through the knob and both slides *c* and *d* passes the tube *m*. Within this tube is fitted the rod *n*, having its end *o* fitted for the key *p*, and in its other extremity a cavity for the reception of a pencil, *q*. It has also a rim, *r*, and the spiral spring *s*, pressing against this shoulder, keeps the rod in place. The metallic strap *t*, attached to the inner slide, has a hole, through which the pencil passes, and serves as a guide for it, and also a bearing for the spring *s*.

The operation of my invention is as follows: The marker of pencil *q*, as shown in the drawing, Fig. 1, is just opposite the center of the circular ring marked "Monday," and the dial shows 12 o'clock. Suppose the watchman to come in at half-past 12. The line numbered 12 on the dial will then be pointing to *x*, or in that position, and the watchman, applying the key to the rod *n*, forces the pencil in against that part of the dial then opposite to the pencil-point, and would make a mark midway between the lines 12 and 1, at *z*, showing that he came in at 12.30, and so on through the night. Upon his removing the key the spring *s* brings the rod *n* and pencil attached to it back to its place. The dial *a* may, of course, be subdivided to show the portions of an hour.

When it becomes necessary to change the

day the door B is opened and the lever *h* lifted from the pin marked "Monday," and placed upon that marked "Tuesday," next to it.

The spiral spring *u*, Fig. 3, allows the lever *h* to be raised enough to be taken from the pin, and keeps it on when desired. The lever being thus moved downward, the slides *c* and *d*, attached to it, and the marker or register also move with it, as before stated, the distance of the width of the circles on the dial, and the pencil-point is brought opposite the center of the ring marked "Tuesday," and the watch makes the dots, as before, around this ring, using the key whenever he visits the place, and registering the time on the false dial. Of course the box is to be kept locked, that it may not be tampered with, and the only way in which the marks can be made is by the use of the key. If by accident the lever should not be changed to the appropriate day, a double row of marks would be shown around the dial-face, as it would be almost an impossibility for two marks to be made in the same place.

By changing the pencils each week, and using those of a different color, one dial may be made to last a long time.

Of course a one-day clock can be used; but this necessitates daily winding.

The pencil *q* is of such a length as never to touch the dial except when pushed in by the key.

I do not claim, broadly, the use of a false revolving dial, as this has been used before, and is shown in the patent of J. E. Buerk, No. 48,048.

I do not claim any part of the devices shown in the patent of S. Fournier, No. 29,786.

My time-detector has no wheels giving motion to a rack for a portion of the twenty-four hours like those shown in said patent, and which are claimed in combination with a clock; nor has it any analogous devices. The only mechanical devices employed to obtain motion are those of the ordinary eight-day clock, which I do not claim. Neither has it a carriage, in combination with a rack, through which rack the clock gives motion to said carriage, as described in the second claim of said patent. The clock in my device has nothing whatever to do with the marking device or its diurnal adjustment. Its office is simply to revolve the dial, and, as before stated, I do not claim this revolving dial, broadly. The marking device, being adjusted by-hand only, is not affected by the clock-works. My device is simpler, less liable to get out of order, and can be afforded at a much less price than said Fournier's, while at the same time it is equally effectual.

Nor do I claim the devices shown in the patent of B. F. Hains, No. 23,918, they differing from mine in construction and operation.

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

The combination and arrangement of the within-described dial with the marker, operating as set forth, the slides *c* and *d*, through which said marker passes, and the hand-lever *h*, by which it is adjustable to the required day of the week, all combined and operating substantially as set forth and described.

JAMES DUNNING.

Witnesses:

WM. FRANKLIN SEAVEY,
JOHN Y. RICKER.