G. W. SHINGLETON.

WATCHMEN'S TIME-DETECTERS.

No. 194,006. Patented Aug. 7, 1877.

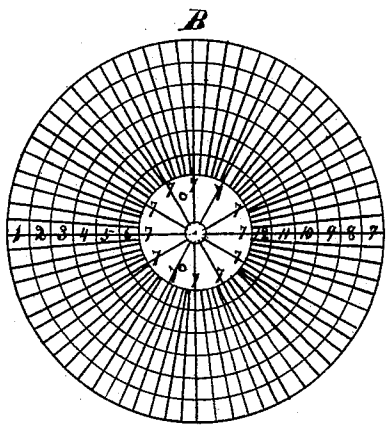


Fig. 2

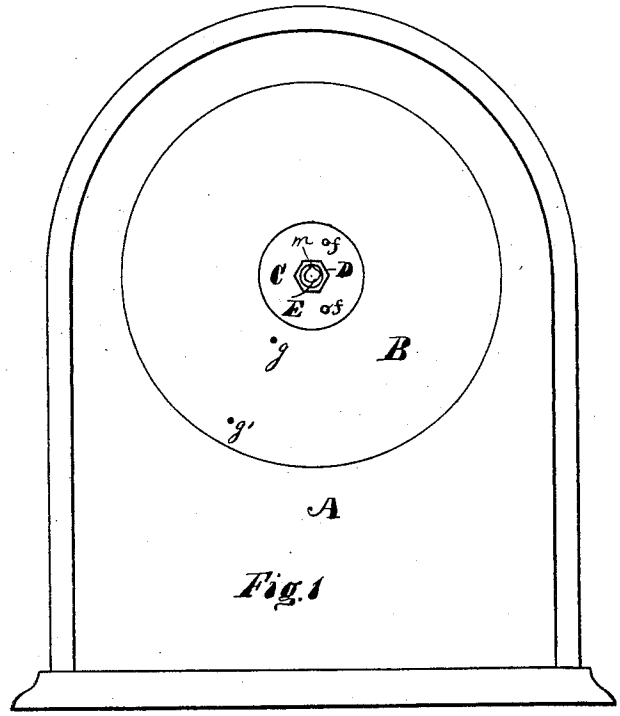
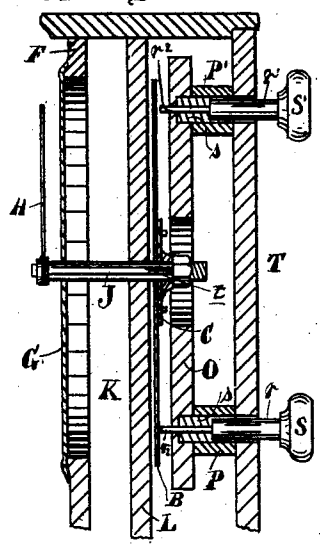


Fig. 1

A Fig. 3.



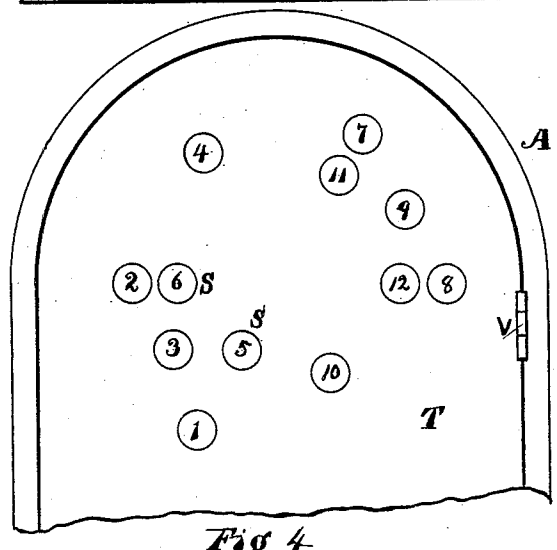
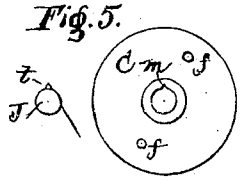


Fig. 4

Fig. 5.



Witnesses
E. C. Whitney
George Smith

Inventor.
George W. Shingleton
Per E. C. Whitney his Atty

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE W. SHINGLETON, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN WATCHMEN'S TIME-DETECTERS.

Specification forming part of Letters Patent No. **194,006**, dated August 7, 1877; application filed November 21, 1876.

To all whom it may concern:

Be it known that I, GEORGE W. SHINGLETON, of Indianapolis, county of Marion, State of Indiana, have invented a new and useful Clock-Register, of which the following is a description, reference being had to the accompanying drawings.

The object of my invention is to construct a clock with a register addition, and to provide the register part with proper punch-knobs, so that a number of workmen can register the time at which they go to work, or a person designated can register the time for them; and my invention consists of extending the shaft of a clock, to which the hour-hand is attached, backward beyond the clock-back, and attaching thereto a paper dial properly spaced, and lettered or figured, which shall revolve with the hour-hand; and also of constructing a disk attached to the rear door of the clock with proper punch-knobs, which should be lettered or numbered the same as the workmen, which, when operated or pushed in, shall punch the paper dial and designate the time the workmen went to work.

Figure 1 represents the back of an ordinary clock, showing the arrangement of the paper dial on the extended part of the hour-hand shaft. Fig. 2 represents the paper dial. Fig. 3 is a sectional view of a clock, showing the arrangement of my improved register. Fig. 4 represents the rear door of the clock in which the punch-knobs are operated. Fig. 5 is an enlarged view.

A represents the outer case of an ordinary clock provided with the front F, to which is attached the dial G in the ordinary manner. The clock-works operate in the space K, between the dial G and back L, but are not shown.

The hour-hand H is secured to the shaft J, and operates in the usual manner; but the shaft J extends through the back L, and is provided with a feather, *t*. On this shaft fits nicely a sleeve, E, having a groove, *m*, to receive the feather *t*, and a flange or disk, C, for supporting a register-disk, B, which is arranged with its face next to the back L of the clock.

The register-disk is printed in the manner shown in Fig. 2, having twelve lines, 7 7 7, &c., radiating from a common center. These radial lines indicate, each one, one hour apart, and between these lines 7 7 7, &c., there are other radial lines which subdivide the space into spaces equal to ten minutes each. Thus the spaces all indicate ten minutes' time between each radial line. The radial lines are also crossed by circles 1 2 3 4 5 6, &c., and at the crossing of each circle-line with a radial line, if a punch-key, S r^1 r^2, was pushed in, the dial B would be perforated with a hole, as *g* or *g'* in Fig. 1, which will be hereinafter described.

The rear clock-door T is hinged at V to the case A, and is designed to be further secured by a lock to prevent its being opened by any person other than the one who has charge thereof. On the door T the disk O is secured by proper studs P P. These studs are hollow, and in the hollow part the shank r^1 of the punch-knobs S operate. Between the ends of the shanks r^1 and the end of the socket in the studs P a coil-spring, *s*, is used to force the knobs S out after having been pressed in.

Into the ends of the shanks r^1 are inserted the punches r^2, which extend through a perforation in the disk O far enough to almost touch the register-disk B when the door T is closed, as shown in Fig. 3.

The operation of my improved register is as follows. The disk B being secured to the shaft J, and held in position by the pins *f f*, (shown in Fig. 1,) the disk B revolves with the hour-hand H. If workman No. 1 comes in at seven o'clock and presses the knob No. 1 in, the punch r^2 on the end perforates the register-disk B at the register-mark 7 o'clock, as shown at *g'* in Fig. 1, and if workman No. 5 comes in at the same time, his register-mark will be the same, only at *g*, Fig. 1, and if either is late, the perforated hole opposite his number will register the number of minutes that he is late, and so on. Each workman registers his own time for record, and there can be no mistake.

It will be seen that by the arrangement described a single disk is made to serve the purpose of a number of disks and separate clock movements, as heretofore; that the sleeve E carrying the register-disk B, may be readily applied and withdrawn without danger of maladjustment, and that the said sleeve and the

disk O, with its studs and punches, may be readily applied to ordinary clocks without any other alteration than to extend the hour-shaft J to the rear.

I claim—

The combination of the hour-shaft J, its feather *t*, and the sleeve E, its recess *m*, flange C, and pins *f*, and punches r^2, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE W. SHINGLETON.

Witnesses:

E. O. FRINK,

E. C. WHITNEY.