

(No Model.)

H. MAY.
WATCHMAN'S TIME RECORDER.

No. 472,896.

Patented Apr. 12, 1892.

FIG. 1.

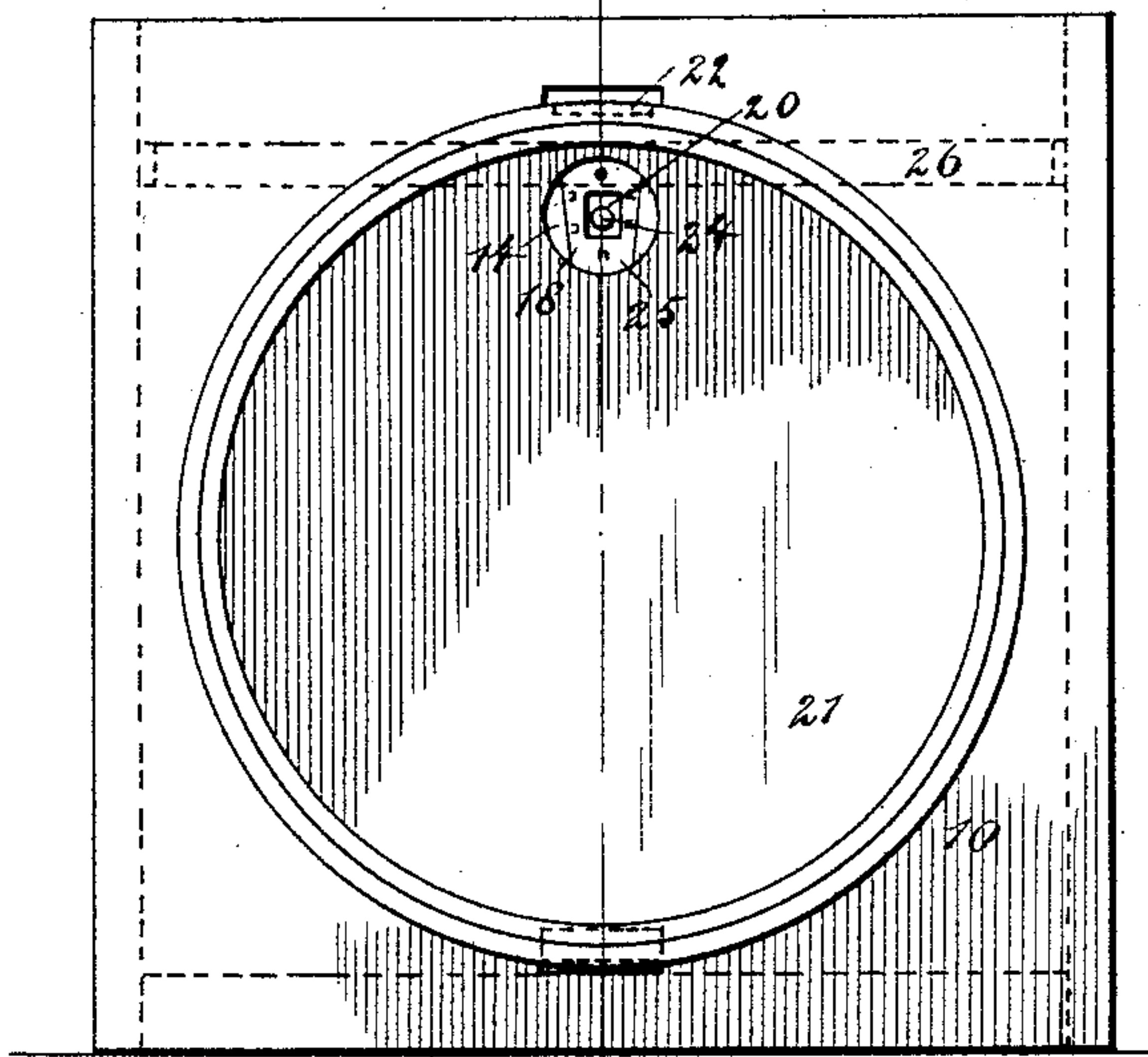


FIG. 2.

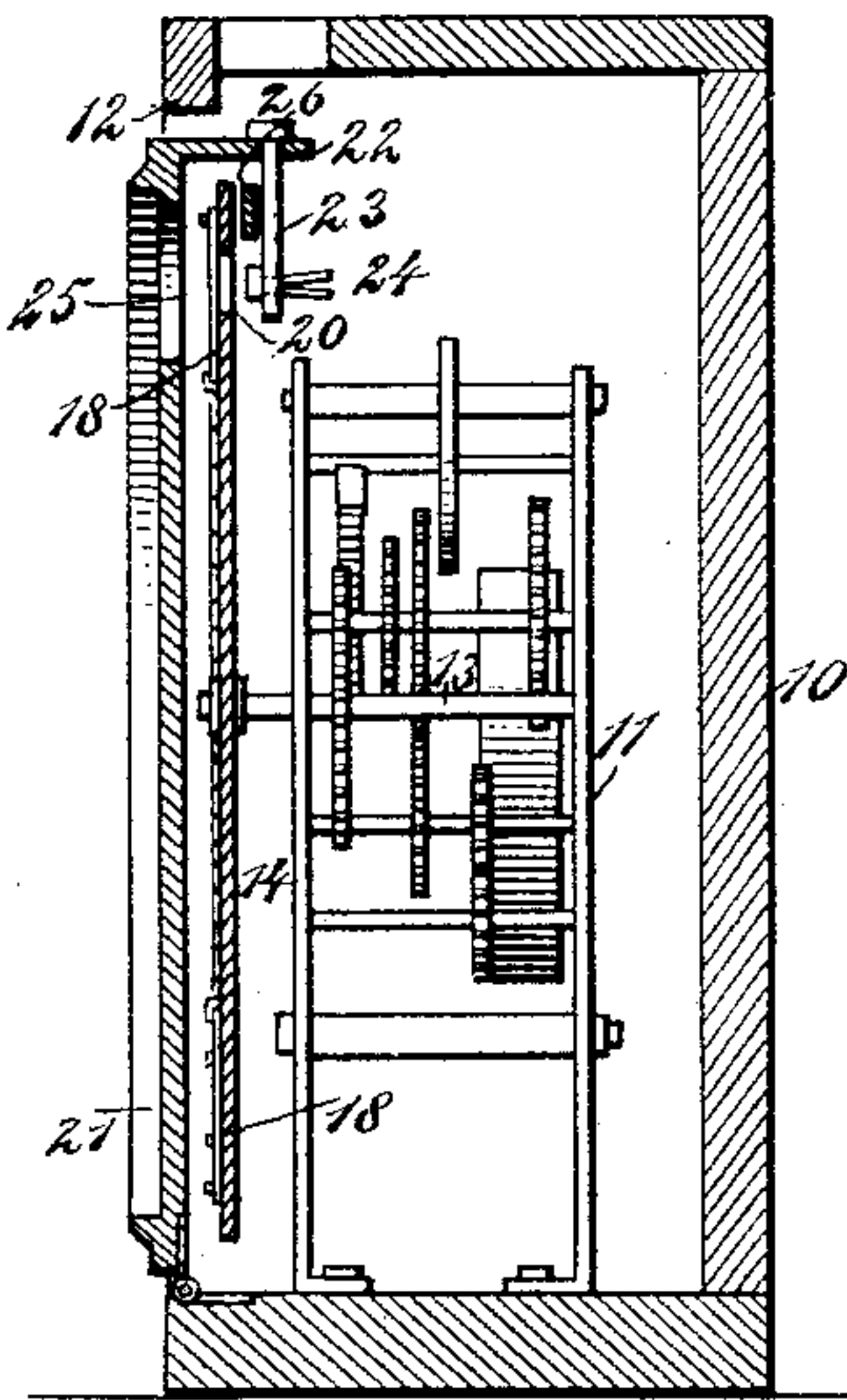


FIG. 3.

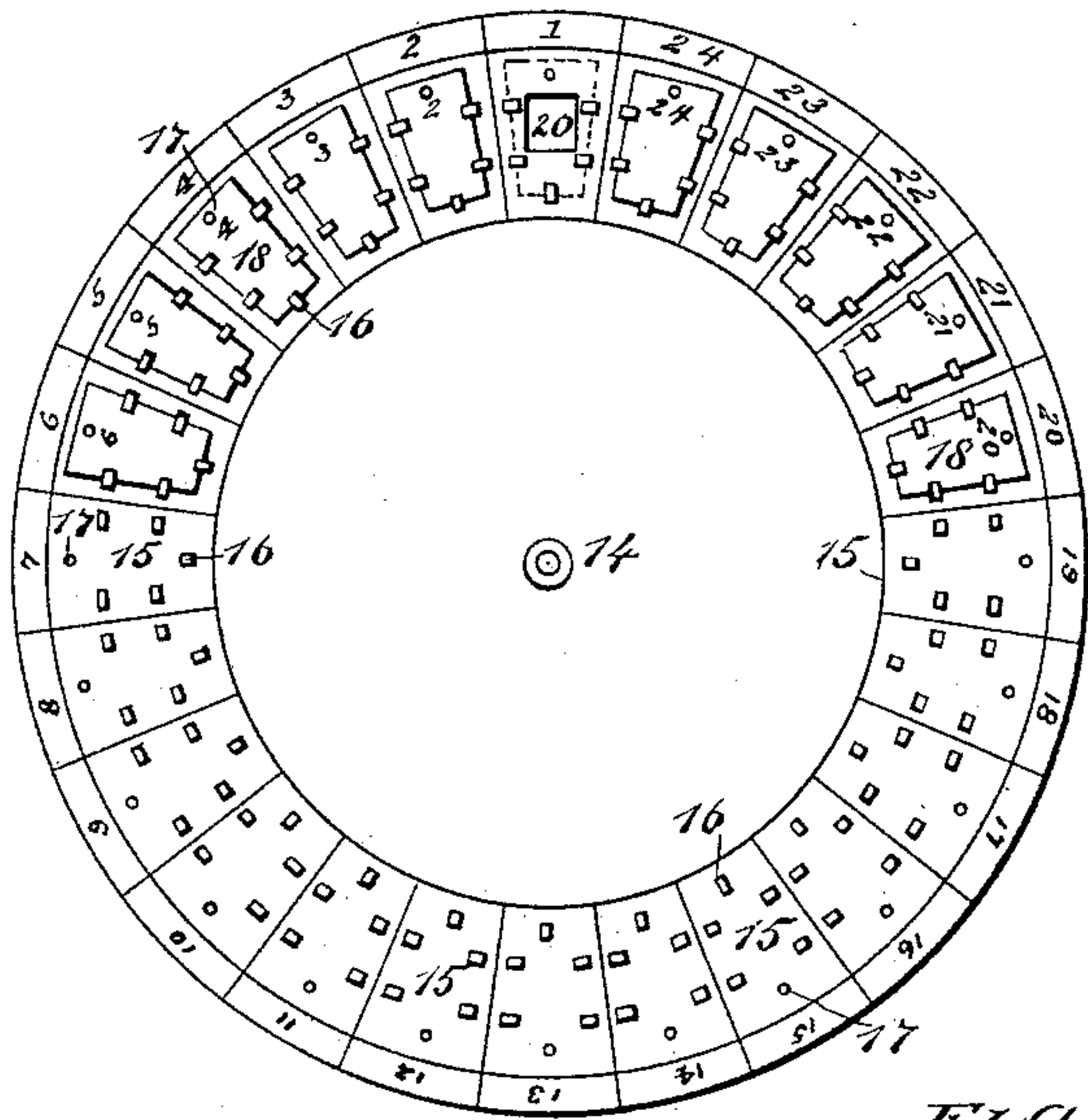


FIG. 4.

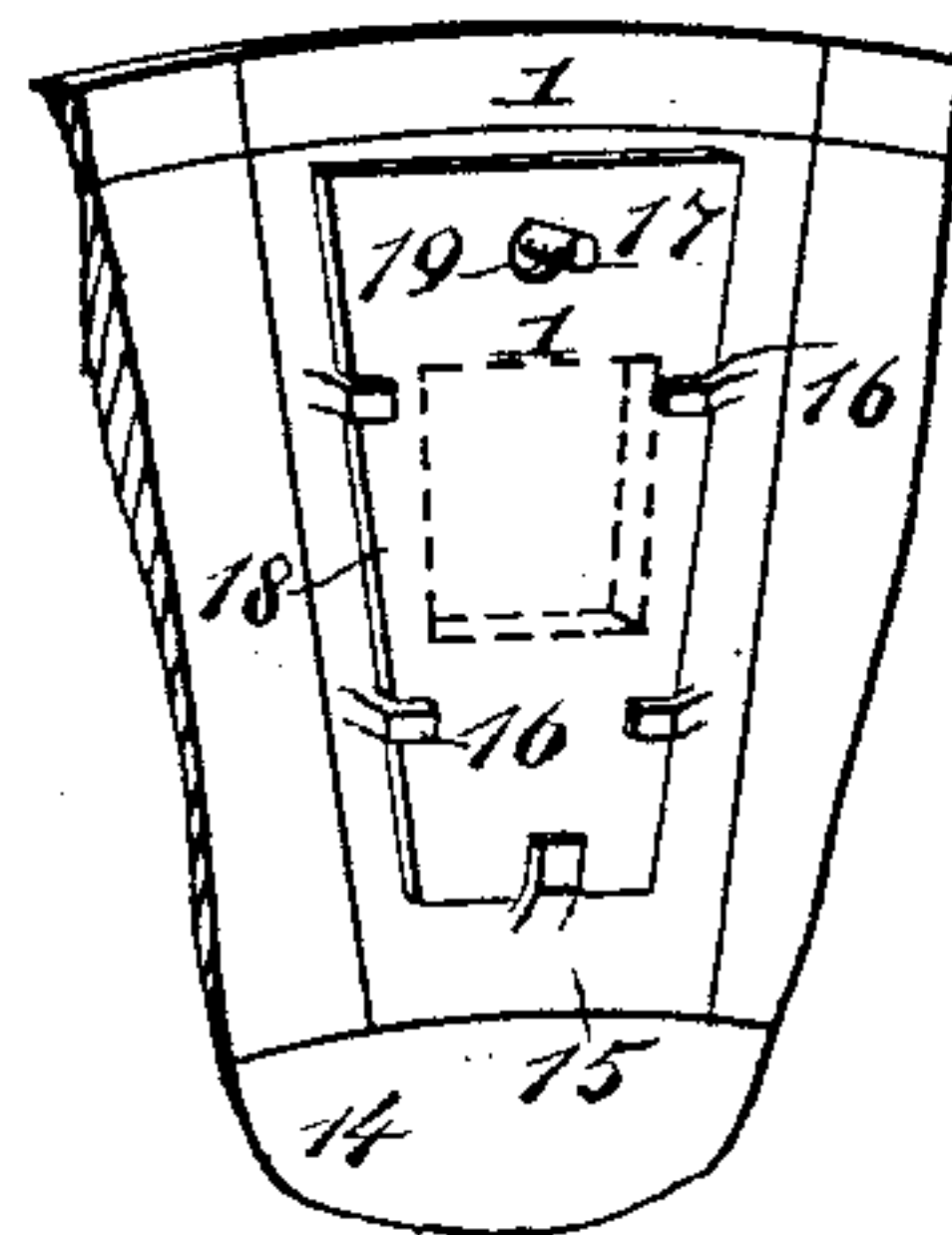
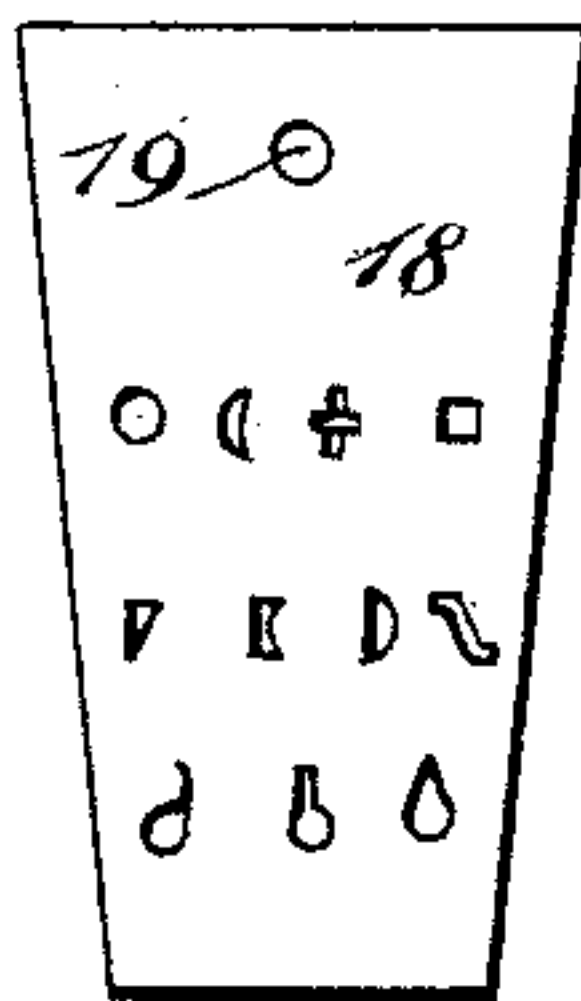


FIG. 5.



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HENRY MAY, OF SCRANTON, PENNSYLVANIA.

WATCHMAN'S TIME-RECORDER.

SPECIFICATION forming part of Letters Patent No. 472,896, dated April 12, 1892.

Application filed June 5, 1891. Serial No. 395,237. (No model.)

To all whom it may concern:

Be it known that I, HENRY MAY, of Scranton, in the county of Lackawanna and State of Pennsylvania, have invented a new and Improved Watchman's Clock and Indicator, of which the following is a full, clear, and exact description.

My invention relates to an improvement in watchmen's clocks and indicators, and has for its object to provide a mechanism through the medium of which it may be determined how long a watchman has remained at a central or main station and the length of time that he has been absent therefrom.

A further object of the invention is to provide a means whereby it may be determined at what stations the watchman has called or reported and the hour at which he returned to the central or main station.

A further object of the invention is to provide the clock with a time-lock of simple, durable, and economic construction, which lock will effectually prevent the recording-dial from being tampered with without the effects being made visible.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the device.

Fig. 2 is a vertical section taken practically on the line 2 2 of Fig. 1. Fig. 3 is a front elevation of the dial of the clock. Fig. 4 is a perspective view of an enlarged segment of the dial, and Fig. 5 is a front elevation of a ticket punched and adapted to be placed upon the dial of the machine.

Within a casing 10 a clock-movement 11 of any approved construction is located, the said movement being preferably a twenty-four-hour movement. In the front of the casing an opening 12 is made, which opening is preferably circular, and upon the hour post or spindle 13 of the time-movement a dial or disk 14 is securely fastened, the said dial or disk being preferably slightly smaller than the

opening 12 in the casing. The dial or disk is divided near its periphery into twenty-four segmental panels 15, which panels, if so desired, may be designated by numbers running from 1 to 24. Each segmental panel 15 is provided with a series of clips or cleats 16 upon its outer face, the said clips or cleats being preferably arranged to correspond to the shape of the panels, as is best illustrated in Fig. 4, the cleats or clips being arranged at the sides and inner ends of the panels, but not at their outer ends, as at this point a pin 17 is secured to each panel.

The clips or cleats are adapted to receive and maintain in position upon the dials tickets 18, and the tickets preferably correspond to the contour of the panels. Each ticket is provided near its outer end with an opening 19 to receive a pin 17, as is likewise best shown in Fig. 4, the pins serving to prevent the tickets from dropping from the dial when their outer ends face downward. The tickets 18 may bear numbers corresponding to the numbers upon the panels adapted to carry them.

One or more of the panels, preferably one, are provided with an opening 20, extending through from face to face of the disk. Ordinarily but a single opening is employed, and it is located in a panel which will be brought uppermost at a predetermined hour in the day.

The opening 12 in the casing is adapted to be covered by a door 21, which door is ordinarily hinged at its lower end to the bottom of the casing, and the upper edge of the door is provided with a horizontal lip 22, extending within the casing, when the door is closed, over the upper edge of the disk or dial 14. The lip 22 has an aperture produced therein adapted to receive a key 23, and the key when in position engages at its head only with the lip. Near the lower end of the key an opening is made, through which a cotter-pin 24 or the equivalent thereof is passed. The position of the head of the cotter-pin is such that when the opening 20 in a panel is brought uppermost or to a central position with respect to the vertical axis of the door or dial the head of the cotter-pin will be visible, and it may be removed, even when the door is

closed, through the medium of an opening 25, made in the upper portion of the door, which opening is preferably circular and of greater diameter than the width of the panel-opening 20.

The key 23 may be dropped into the aperture of the lip through an opening in the top of the casing. The key, however, cannot be disengaged from the lip of the door, owing to the cotter-pin 24, and preferably a bar 26 is extended from side to side of the casing between the dial and the key, as shown in Figs. 1 and 2, which will be in the path of the head of the cotter-pin when the key is raised, and it is impossible for the cotter-pin to be driven from the key when the panel-opening 20 does not register with its head, as the pin will be brought in engagement with the rear face of the disk or dial.

In connection with the apparatus above described hollow punches are employed, one of said punches being adapted to be located at each station to be visited by the watchman. The punch at each station produces an aperture of a different design, and the punches are permanently fixed—that is, they cannot be removed, although they may be readily operated.

In operation if a watchman comes on duty at the twentieth hour, for instance, the ticket marked "20" and carried by the dial-segment so marked will be brought opposite the opening 25 in the door and the ticket may be readily removed by the watchman. Should the watchman remain at the main station another hour, the next ticket presented at the end of the hour is also removed by him, which will indicate to the inspector of the implement that the watchman was on duty at those hours at the main office. When the watchman removes the second ticket, he will, for instance, start out upon his rounds. The ticket last removed he will carry with him and will puncture the ticket with the punches at the various stations at which he may call. Upon the return of the watchman to the main station or office he awaits the presentation of another ticket and removes said ticket, replacing it with the punctured ticket, which will indicate to the inspector that the stations indicated by the punctures upon the ticket have been visited and that the time occupied in making the rounds is the number of hours represented by the number of tickets remaining in the segments of the dial between the punctured ticket and the vacant segment from which the said ticket was removed before being punctured. Thus it will be observed that a perfect tally or check is obtained upon the watchman and that the punches located at the several stations act in the capacity of counter-checks, as the number of particles they contain which have been removed from the punched tickets should correspond to the number of apertures or punctures in the ticket.

As heretofore stated, the lock—that is, the

key and cotter-pin—is a time-lock, and the face of the dial cannot be exposed by opening the door until the predetermined hour, at which time the inspector is supposed to be at hand, and when said hour arrives the panel-aperture 20 will register with or be opposite the head of the cotter-pin 24, admitting of the removal of said pin from the key, and consequently the withdrawal of the key from engagement with the door. It will be observed that the device is exceedingly simple, durable, and economic in construction and that the plan of operation is within the scope of understanding of the average man.

If in practice it is found desirable, a number instead of but a single ticket or check may be carried by each panel, thus enabling the clock to indicate the movements of a number of watchmen, and instead of the dial being made to revolve once in twenty-four hours the construction of the clock mechanism may be varied to cause the dial to make one revolution in a greater or in a less number of hours, and I further desire it to be understood that any approved material may be employed in the construction of the dial, the door, and the tickets or checks.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a watchman's clock and indicator, the combination, with a dial and a time mechanism revolving the same, of panels formed upon the dial and representing periods of time, and checks carried by the panels, as and for the purpose specified.

2. In a watchman's clock and indicator, the combination, with a time-movement and a dial having its face divided into panels representing periods of time, of cleats or clamps carried by the panels, and checks removably held by the said cleats or clamps, substantially as shown and described.

3. In a device of the character described, the combination, with a casing having an opening in its front, a time-movement located within the casing, and a dial rotated by the time-movement, having its face divided into panels representing periods of time, a panel being provided with an opening extending through from face to face of the disk or dial, of checks carried by the panels and removable therefrom, a cover provided with an opening through which the checks are visible at intervals, and a time-lock carried by the cover, as and for the purpose specified.

4. In a device of the character described, the combination, with a time-movement, a dial rotated by said movement, having its face divided into panels representing periods of time, and checks removably carried by the panels, of a cover having an opening through which the checks are visible at intervals, and hollow punches adapted to perforate sundry of the checks, as and for the purpose specified.

5. In a watchman's clock or indicator, a check or ticket carrying dial having its face divided into panels representing intervals of time, as and for the purpose specified.

5 6. In a watchman's clock and indicator, a ticket or check carrying dial having its face divided into panels representing periods of time, each panel being adapted to carry a

check or ticket, and a twenty-four-hour time-movement rotating the dial, as and for the purpose specified.

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Witnesses:

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