H. GREENE.

Time-Checks.

No. 165,817. Patented July 20, 1875.

Fig. 1.

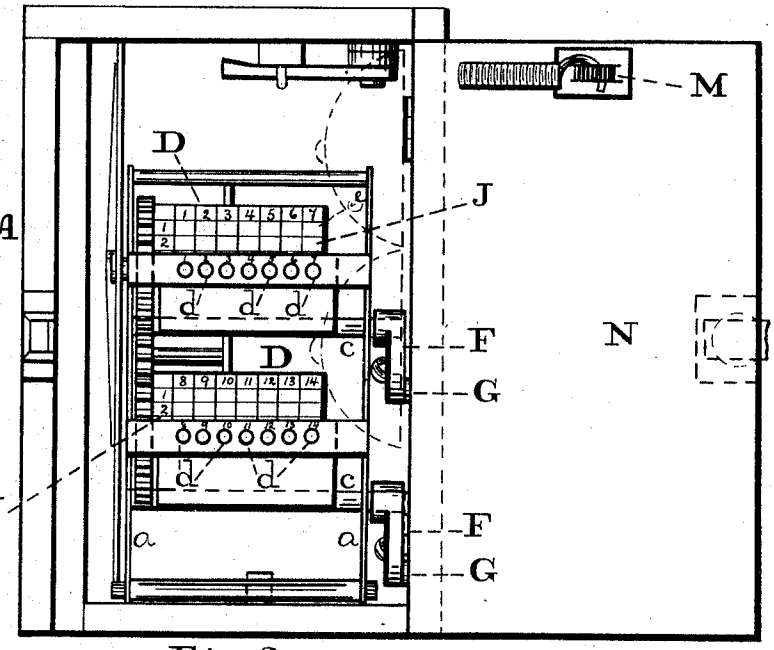


Fig. 3.

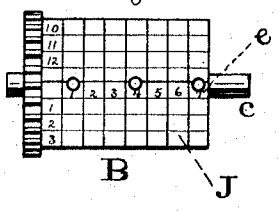
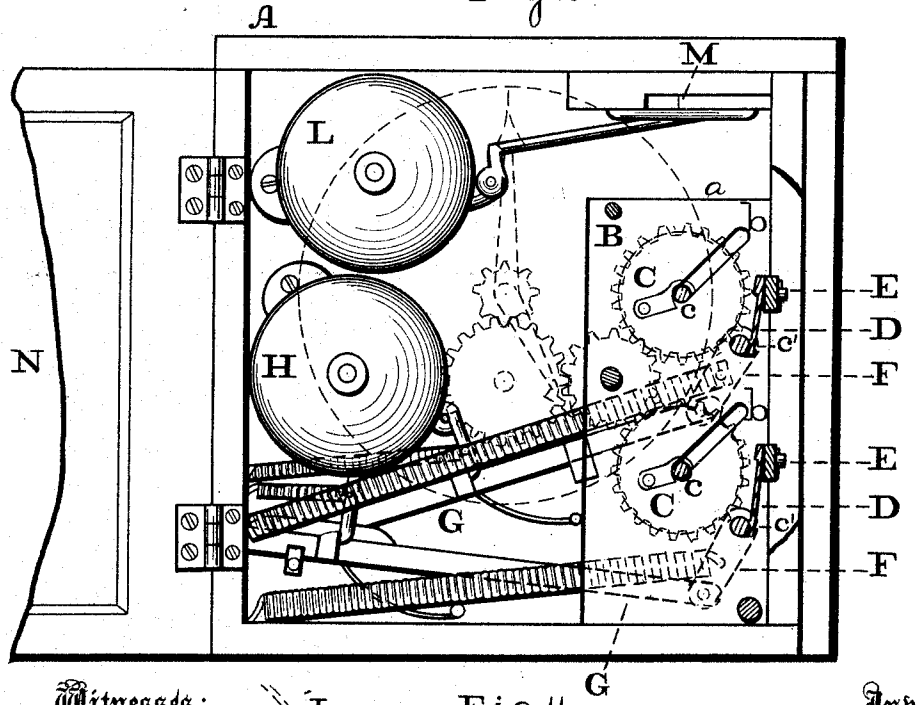


Fig. 2.

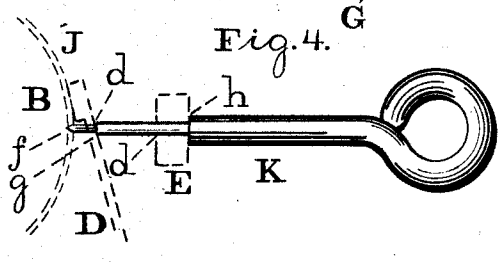


Witnesses:

L. F. Brous

A. P. Grant.

Fig. 4.



Inventor:

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Atty.

UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN TIME-CHECKS.

Specification forming part of Letters Patent No. **165,817**, dated July 20, 1875; application filed May 14, 1875.

To all whom it may concern:

Be it known that I, HENRY GREENE, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Time-Registers; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 is an end view of the device emboying my invention. Fig. 2 is a front view of the interior thereof. Fig. 3 is a face view of a detached portion. Fig. 4 is a side view of the marker.

Similar letters of reference indicate corresponding parts in the several figures.

My invention relates to an attachment to a clock or time-keeper, for causing an indication or registration of the hours of workmen's entrance on duty or departure therefrom, or both, watchmen's actions, and similar services.

The invention consists in a drum, which receives rotation by the movement of the clock, and is faced with properly printed or prepared sheets or tables, on which the registration or indications will be marked by the workman or watchman, and in means for sounding an alarm, so that an announcement is made of the operation of registration. It also consists in means for guiding the marking implement to the registering-drum, and causing registration thereon at the proper spot. It further consists in means for removing the registering or indicating drums. It also consists in a peculiarly-constructed marker.

Referring to the drawings, A represents a clock-casing, in juxtaposition to which is mounted, on a frame, *a*, a drum, B, which receives motion from the clock by the interposed idle-wheel shown in dotted lines, or other suitable means. In the frame *a* there are formed slots *b b* for the axis *c* of the drum B, and to one side of the same there is jointed a swinging clamp, C, which is adapted to embrace said axis, and retain the drum in proper position. To the frame *a* there is pivoted a plate, D, which extends transversely, and is adapted to move toward and from the drum B, and to the frame there is also connected a plate, E, which extends similarly to the hinged plate D, and in front thereof. In the two plates there are formed a series of openings, *d*, corresponding in number to the number of workmen employed, or the hours of the watchman, or similar characteristics, and if the number exceeds the capability or extent of the drum, the drums may be lengthened, or their number may be multiplied, in which latter case it is requisite to correspondingly increase the number of plates D and E, and arrange the drums so as to be geared with the clock mechanism. F represents an arm, which is secured to the axis *c'* of the swinging plate D, and to it is jointed a bar, G, which is constructed to engage with the hammer of a bell or gong, H, arranged within the casing A. If a number of drums are used, the arms secured to their axes may be connected to bars similar to the bar G, and operate the same bell or gong H.

The drum will be faced with a sheet or table, J, which will be marked in longitudinal columns *e*, corresponding to the number of workmen employed, the hours of the watchmen, or other desirable or necessary characteristics, and also numbered to correspond with the twenty-four hours of the day, or in two sections, each of twelve hours, for a. m. and p. m. The longitudinal columns will register or be in line with the openings in the plates D and E, and the face of the drum will be grooved in lines coinciding with the openings in the plates D and E.

The sheet or table will be made removable from the drum B in order to apply a fresh sheet when the former one has rendered its service.

K represents a marker, which is adapted for piercing or marking the sheet or table J, and is constructed with a point, *f*, a shoulder, *g*, and another shoulder, *h*.

Within the casing A there is also mounted a gong or bell, L, whose hammer is adapted to be operated by a dog, M, secured to the door N of the casing A.

The operation is as follows: When a workman reaches the door N of the casing A, and opens the same, the dog M engages with the hammer of the bell L, and causes the latter to

be sounded, whereby the attention of the time-keeper or other proper party is directed to the presence of the workman, who then takes the marker K and inserts it in one of the openings *d* in the plate E, said opening corresponding to the number by which the workman is known or entered on the books, and serving to guide the marker to the drum.

By pressing the marker toward the drum B, the point passes through the proper opening in the swinging plate D, and the shoulder *g* engages with said plate, so as to move the same toward the drum. Owing to the arm F being fixed to the axis *c'* of the plate D, and said axis being secured to the plate, the bar G, which is jointed to the arm F, receives movement so as to operate the hammer of the bell H, whereby the latter is sounded, thus indicating the first action in the operation of registering. When the marker is pressed in to full extent, its point *f* pierces the table or sheet J on the drum, and owing to the column lines or other characteristics of said table, the spot which is pierced or marked will indicate the time at which the operation is performed, thus recording the time of the arrival or departure of the workman, presence of the watchman, or otherwise.

The shoulder *h* of the marker limits the inward movement thereof, and prevents injury to the table J or the drum B.

When the drum has made a complete revolution, the pierced table or sheet will be removed, so as to transfer the result to the proper books, and a fresh table will be applied, the old being then filed away for subsequent reference, if necessary.

In order to remove the drum, the clamp C is thrown clear of the axis *c* of the drum, and the latter will then be lifted from the frame *a*, the slots *b* permitting such movement.

When the drum is reapplied, the clamp C is swung over and on the axis *c* of the drum, so that the latter will again be held on the frame *a* in operative position.

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

1. The perforated plate D, connected to the alarm-operating bar G, and swinging toward the register-drum B, substantially as and for the purpose set forth.

2. The guide-plate E, with indicating openings *d*, in combination with the swinging plate D and alarm-operating bar G, substantially as and for the purpose set forth.

3. The register-drum B, removably fitted to the frame *a*, and the confining-clamp C operating therewith, substantially as and for the purpose set forth.

4. The marker, constructed with a point, *f*, and shoulders *g h*, substantially as and for the purpose set forth.

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Witnesses:
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