F. IMHAEUSER.

Watchman's Time-Indicator.

No. 206,572. Patented July 30, 1878.

Fig: 1

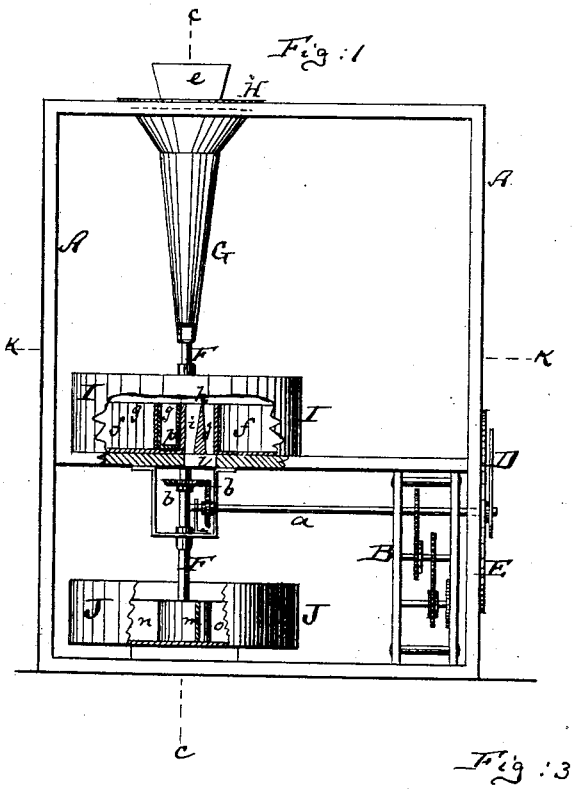


Fig: 2

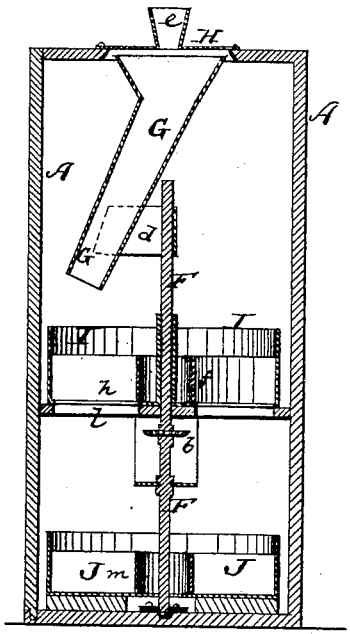


Fig: 3

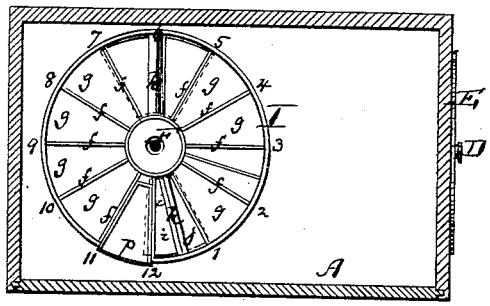
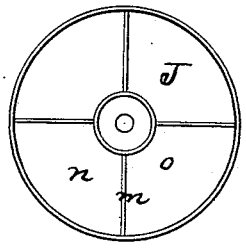


Fig: 4



Witnesses:
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UNITED STATES PATENT OFFICE.

FRIEDRICH IMHAEUSER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN WATCHMEN'S TIME-INDICATORS.

Specification forming part of Letters Patent No. **206,572**, dated July 30, 1878; application filed November 24, 1877.

To all whom it may concern:

Be it known that I, FRIEDRICH IMHAEUSER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Time-Indicator, of which the following is a specification:

Figure 1 is a front view, partly in section, of my improved time-indicator. Fig. 2 is a vertical cross-section of the same on the line *e e*, Fig. 1. Fig. 3 is a horizontal section of the same on the line *k k*, Fig. 1; and Fig. 4, a top view of the lower receiver.

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

The object of this invention is to produce a machine for determining the time of daily arrival and departure of employés, in extensive manufacturing or mercantile establishments, to and from their work, for the joint protection of employers and employés; and the invention consists, principally, in the combination of a rotating funnel with the arbor which carries the hour-hand of a clock-movement, and with said hour-hand, and with a receiver, which is placed beneath the funnel, and with a second receiver, which, as well as other features of the improvement, will hereinafter be more fully referred to.

The letter A in the drawing represents the inclosing case or box of my improved time-indicator, the same being preferably a box capable of being entirely closed by lock and key, so that unauthorized persons may not be able to tamper with its contents. Within this box is contained a clock-movement, B, which imparts motion to an hour-hand or pointer, or to hands and pointers, D, which work, in the usual manner, over a proper dial-plate, E, which is applied to the case A, to indicate on the outside of the box or case the time of day.

That one of the shafts or arbors, *a*, of the clock-movement which communicates motion to the hand D connects by suitable gearing, *b*, with an upright shaft, F, which is placed into the box or case A, and revolves around its own axis through the operation of the clock-movement, making, by preference, one complete revolution in the same period of time, within which the hour-hand on the clock-dial also makes a complete revolution. The upper part of the shaft F connects with a funnel, G, which is placed in an inclined position over said shaft, as plainly shown in Fig. 2, and provided with lugs or projections *d*, by which it is connected with the shaft. The upper part of the funnel is of circular form, concentric to the shaft F, and properly supported or guided in an aperture formed in the top of the box A. This aperture is closed by a plate, H, which is rigidly secured in place on the box A, and is provided with a hopper, *e*, as shown.

It will thus be observed that by the operation of the clock-work the funnel is caused to rotate under the hopper *e*, and to complete one revolution during every twelve hours. Beneath the lower discharge end of this funnel G is placed what I have termed the "receiver" I, the same being a box of cylindrical or other proper shape, embracing the shaft F, but stationary, so that it does not revolve, and divided by a series of radial partitions, *f f*, into a series of compartments, *g g*, as clearly indicated in Fig. 3.

There may be twelve compartments—one for every hour, as indicated by the figures 1–12 in Fig. 3 of the drawing—or more than twelve, say one for every quarter-hour, or less than twelve, according to the requirements of the establishment using the apparatus.

It is quite plain that the funnel will guide any mark or ticket that is introduced into its upper end into that one of the compartments *g* which is beneath the discharge end of the funnel, and thus the marks found in the box or receiver I will, by their position, indicate when they were put in, this being the object to be attained.

In order to make a more specific record of the time at which the employés go to and return from lunch, and to divide the regular comers and goers from those that are less regular, I divide that compartment of the receiver I which corresponds with the hour 12 to 1, noon, by an upright partition, *h*, into two parts or chambers, *i j*, and beneath these two chambers I cut an opening, *l*, into the bottom of the receiver I, so that the matter dropped into the chambers *i j* may drop down into a second receiver, J. This receiver J, which is more fully shown in Fig. 4, has a partition, *m*, directly beneath the partition *h*, and

has two chambers, *n* and *o*, at the sides of the partition *m*. The partition *h* is made wider at the bottom than at the top, so that the matter dropped into the two chambers *i j* will be deflected and caused to drop in a slanting direction, and thereby caused to enter with certainty the requisite chamber, *n* or *o*, of the lower receiver, J. The inclined faces of the partition *h* serve to mark a sharp division of time in the location of the tickets within the receiver J.

Every employé, on departing for lunch, drops his mark into the hopper. If he leaves the establishment before 12 o'clock his ticket will not reach the receiver J, but will enter that one of the chambers *g* of the upper receiver, I, which represents the hour of 11 to 12. Every employé who leaves between 12 and half-past 12 o'clock will cause his ticket to pass through the open chamber *i* into the chamber *n* of the lower receiver, J. All those that leave or return even the fraction of a minute after half-past 12, or before 1 o'clock, will have their tickets deposited in the chamber *o* of the lower receiver, and all those that return after 1 o'clock will not deposit their tickets in the lower receiver, but will deposit them in a chamber, *g*, of the upper one. Therefore the tickets found in the upper receiver near the compartments *i j* represent the persons who left too soon and returned too late. Those in the lower receiver represent those persons who left at the proper time, and also those who left their work later than they were authorized to leave, or returned earlier than the prescribed time. Thus the officer will at once know that the tickets found in the upper receiver represent parties to be reprimanded or charged for loss of time, while those found in the lower receiver represent parties who are punctual in their arrival and departure. A similar arrangement may be made with reference to the morning and evening hours of arrival and departure—that is to say, the bottom of the receiver may be cut away, so that the tickets of the punctual persons may enter the lower receiver, the upper receiver recording only the unpunctual.

The compartments of the upper and lower receiver, or either of them, may be provided with drawers, as indicated at *p* in Fig. 3, for the purpose of facilitating the removal of the tickets therefrom.

I claim as my invention—

1. The combination of the arbor *a* of a clockwork with the rotary funnel G, stationary receiver I, hand D, dial E, and lower receiver, J, substantially as and for the purpose specified.

2. The receiver I, constructed with a tapering partition, *h*, between the chambers *i j*, which chambers have open bottoms, substantially as and for the purpose described.

3. The lower receiver, J, having partition *m*, combined with the upper receiver, I, having tapering partition *h*, and with the funnel G, substantially as and for the purpose specified.

FRIEDRICH IMHAEUSER.

Witnesses:

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