(No Model.)

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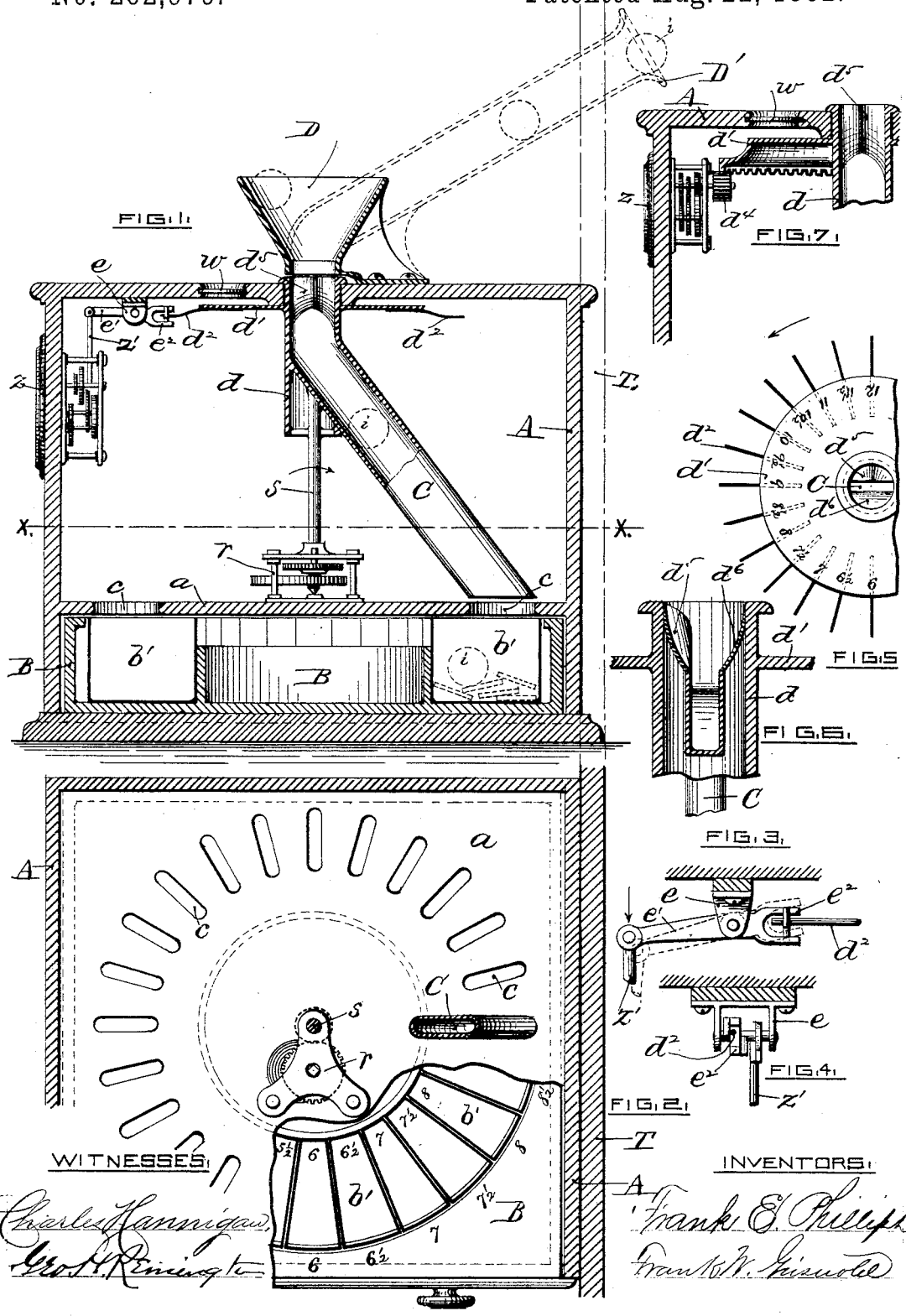
TIME CHECK REGISTER FOR WORKSHOPS.

No. 262,979. Patented Aug. 22, 1882.



UNITED STATES PATENT OFFICE.

FRANK E. PHILLIPS AND FRANK W. GRISWOLD, OF PROVIDENCE, R. I.

TIME-CHECK REGISTER FOR WORKSHOPS.

SPECIFICATION forming part of Letters Patent No. 262,979, dated August 22, 1882.

Application filed March 31, 1882. (No model.)

To all whom it may concern:

Be it known that we, FRANK E. PHILLIPS and FRANK W. GRISWOLD, citizens of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Time-Check Registers for Workshops; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Our invention relates to an improved mechanical apparatus for registering the hour when a workman deposits his time-check upon entering or leaving the workshop; and it consists of an intermittingly-rotating conductor or chute actuated by suitable clock-work, in combination with stationary receptacles or boxes for receiving and retaining the checks.

In large factories, where a great number of operatives are employed, it has been found advantageous to provide each workman with a check, which he is required to deliver to a time-keeper when entering or leaving the workshop, and the number of hours of labor performed by the workman is ascertained by this system of time-checks and time-keeper.

The object of our invention is to dispense with the services of a time-check keeper, thereby saving expense and insuring mechanical accuracy.

In the accompanying drawings, Figure 1 represents a vertical sectional elevation of our improved time-check register, showing the combination of the several parts. Fig. 2 is a sectional plan view of the same through the line *x x* of Fig. 1, having a portion thereof broken away to show the arrangement of the check-boxes in the removable drawer. Figs. 3 and 4 are enlarged views of the device for controlling the movement of the check-conductor. Fig. 5 is a partial top view of a numbered disk, which is fastened to and forms a part of the conductor. Fig. 6 is a vertical central section of the conductor enlarged, showing the inside form of the top portion of said conductor. Fig. 7 is a modification of the device shown in Fig. 3.

A is a box or frame, the lower part provided with a drawer, B, and the upper part containing the conductor C and mechanism for operating it. In the drawer B are radially arranged a series of twenty-four removable numbered check-boxes, *b'*, to correspond with the twenty-four half-hours in a half-day. Between the upper and lower portions of the box A is a partition, *a*, having twenty-four apertures, *c*, which coincide with the boxes *b'*. The conductor C is a flattened tube, of metal or other suitable material, and is secured to the top of the vertical shaft S, and at a proper angle thereto, so that when the shaft is revolved the lower end of the conductor passes over the apertures *c* in the partition *a*. The top of the conductor is made cylindrical at *d* in order to freely revolve in a suitable bearing in the top center of the box A. The inside of the top of the conductor is provided with guide-pieces d^5 and d^6, for the purpose of directing the checks *i* to the flattened portion of the conductor. The disk *d'* is numbered to correspond with the check-boxes. These numbers show through a glass-covered aperture, *w*, in the top of the box A, for the purpose of ascertaining the position of the conductor when adjusting the apparatus to the time of day. Said disk is further provided with radially-arranged pins d^2, which engage with the pins e^2 of the lever *e'*, as shown in Figs. 3 and 4. Instead of this pin-escapement, a crown gear-wheel and pinion, as shown in Fig. 7, may be substituted. The shaft S and conductor C are rotated by means of a spring and train, *r*, and this motion is made intermittent by means of the escapement, hereinbefore described. The escapement-lever *e'* is raised and lowered every half-hour by the clock Z, or other suitable means, and this motion of the lever allows one pin d^2 of the disk *d'* to escape, thereby changing the position of the check-conductor from over one check-box to over the next one.

To the top center of the box A, and over the top of the conductor, is fastened a funnel-shaped tube, D, in which the checks *i* are deposited.

D' is a modification of tube D, showing its

extension through a partition, T, when it is desirable to locate the register in a room other than that in which the workmen are employed.

The operation of our invention is as follows: Suppose the hour to be seven o'clock. The conductor C is adjusted so that its bottom end will cover check-box numbered 7. It is evident that all checks deposited at D between the hour of seven and seven and a half o'clock would be conducted to box 7; but at seven and a half o'clock the conductor changes to 7½ box, and all checks deposited between seven and a half and eight o'clock will be collected in box 7½, and so on during the day. At the proper time the drawer B, containing the check-boxes, is taken to the office and the time of the workmen made up from the checks in the several boxes. Of course each check must be stamped with the name or number of its owner. Should greater accuracy than half-hours be desired, the number of check-boxes may be correspondingly increased. A number of these time-check registers may be operated simultaneously with a single clock by means of electricity.

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

1. In a time-check register for workshops, consisting of a rotating check-conductor and radially-arranged series of check-boxes or receivers, the independent train *r*, in combination with an escapement and clock-train, Z, whereby intermittent motion is imparted to the conductor, substantially as shown and described.

2. In a time-check register for workshops, the partition *a*, provided with apertures *c*, in combination with an intermittingly-rotating conductor, C, and a series of radially-arranged boxes, *b'*, substantially as shown and described.

3. In a time-check register for workshops, the combination of the conductor C, actuated by the train *r*, the former provided with a numbered disk, *d'*, said disk having pins d^2, with the escapement-pins e^2 of the lever *e'*, and clock Z, substantially as shown and described.

In testimony whereof we have affixed our signatures in presence of two witnesses.

FRANK E. PHILLIPS.
FRANK W. GRISWOLD.

Witnesses:
CHARLES HANNIGAN,
GEO. H. REMINGTON.