

(No Model.)

C. K. JARDINE.
AUTOMATIC ELECTRIC TIME CHECK.

No. 475,566.

Patented May 24, 1892.

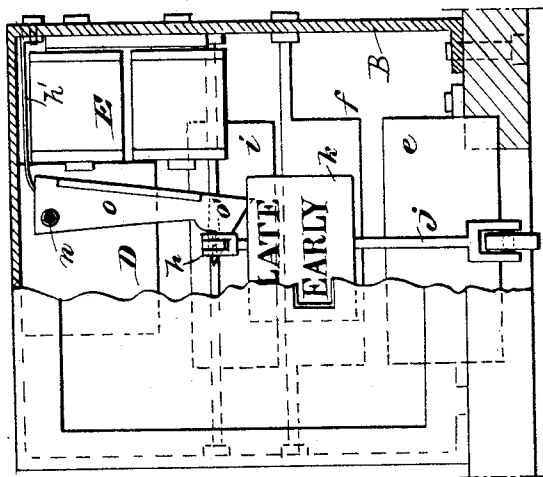


Fig. 2.

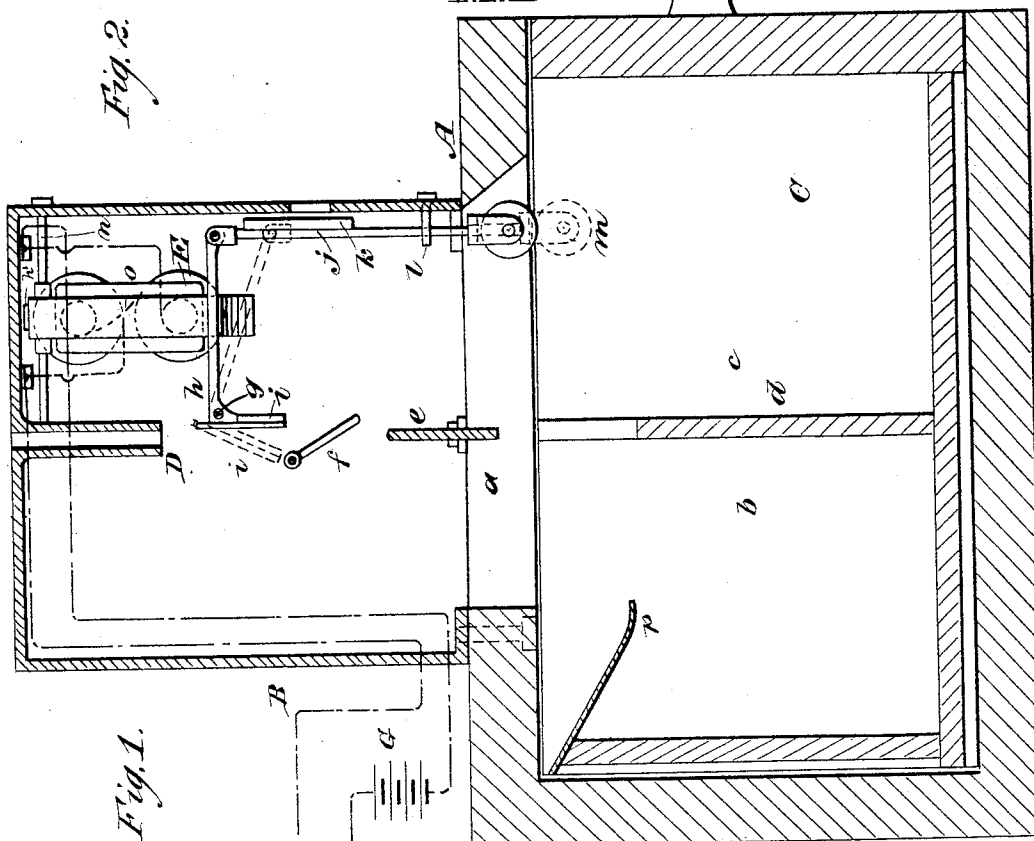
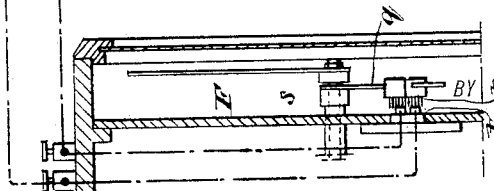


Fig. 1.

WITNESSES:

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to Sedgewick



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ATTORNEYS.



Fig. 3.

UNITED STATES PATENT OFFICE.

CHARLES K. JARDINE, OF GEORGETOWN, BRITISH GUIANA.

AUTOMATIC ELECTRIC TIME-CHECK.

SPECIFICATION forming part of Letters Patent No. 475,566, dated May 24, 1892.

Application filed December 10, 1891. Serial No. 414,617. (No model.)

To all whom it may concern:

Be it known that I, CHARLES KENNEDY JARDINE, of Georgetown, Demerara, British Guiana, have invented a new and Improved Automatic Electric Time-Check, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a vertical longitudinal section of my improved time-check. Fig. 2 is a front elevation, partly in section, of the upper portion thereof; and Fig. 3 is a perspective view of the double contact-button inserted in the clock-face.

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

The object of my invention is to construct an automatic electric time-check for receiving the checks or tickets of employes in manufacturing establishments, offices, &c.

My invention consists in the combination, with a compartment drawer, of an electrically-operated deflector for guiding the tickets into one or the other of the compartments of the drawer, according to whether the ticket is dropped into the apparatus early or late; also, in the combination, with the deflecting apparatus, of an indicating-plate arranged to display the words "Early" or "Late," so that it may be seen by the employe when the ticket is dropped, all as will be hereinafter more fully described.

On the box A is mounted the metallic casing B, which communicates with the interior of the box through the opening *a*. To the box is fitted a drawer C, divided into two compartments *b c* by the partition *d*. In the center of the metallic casing B is arranged a flat tube D, which projects downwardly into the casing over a transverse bar *e*, extending across the casing and arranged above the partition *d* in the drawer C. Over the bar *e* is arranged a deflector *f*, which is pivoted in the sides of the casing B and arranged with reference to the flat tube D, so as to deflect the tickets dropped through the said tube into the compartment *c* of the drawer C. In the casing B is pivoted a shaft *g*, to which is attached a right-angled lever *h*, the shorter arm of which carries a deflecting-plate *i*, while from

the longer arm is suspended a rod *j*, carrying a plate *k*, upon which are printed the words "Late" and "Early." The rod *j* extends through a guide *l*, projecting inwardly from the front of the casing B, and carries at its lower end a wheel or friction-roller *m*. On a stud *n*, projecting inwardly from the front of the casing, is suspended an armature-lever *o* within the field of the electro-magnet E. The armature-lever *o* is provided at its lower end with a catch *o'* for engaging the lever *h*, and the point of suspension of the armature-lever *o* is arranged at one side of the center of gravity of the said lever, so that the armature-lever hangs normally in the path of the longer arm of the lever *h*. A spring *h'*, attached to the side of the casing, presses on the upper end of lever *o* at one side of its axis *n*, so as to positively hold its lower end *o'* normally in engagement with the long arm of lever *h*, as shown in Fig. 2, or in the path thereof. When the longer arm of the lever *h* is engaged by the armature-lever *o*, the plate *k* is suspended in such a position as to display the word "Early" through an opening in the front of the casing B. To the upper edge of the back end of the drawer is fastened an inclined plate *p*, which is capable of engaging and lifting the wheel or friction-roller *m* when the drawer is pulled out, thereby bringing the longer arm of the lever *h* into engagement with the catch on the armature-lever *o*, thereby automatically resetting the lever. When the lever *h* is supported in an elevated position in the manner described, the deflector *i* is removed from the path of the ticket dropped through the tube D, thus allowing the ticket to fall upon the deflector *f*, which guides it to the compartment *c* of the drawer C. When the lever *h* is released from the catch on the armature-lever *o*, the lever drops into the position shown in dotted lines, swinging the deflector *i*, so that the ticket dropped through the tube D will be guided by the deflector *i* over the deflector *f* and delivered to the compartment *b* of the drawer C. The electro-magnet E is connected with a clock F, which closes the circuit periodically and allows the longer arm of the lever *h* to drop. All tickets dropped through the tube D before the fall-

ing of the lever *h* are delivered to the forward compartment *c* of the drawer *C*; but when the armature *o* is withdrawn and the longer arm of the lever *h* falls the tickets are delivered to the compartment *b*. The form of time-circuit closer used in connection with the magnet *E* is shown in electric connection with the said magnet in Fig. 1. In this case the hour-hand *g* of the clock *F* carries a metallic brush *r*, and in the angle *s* of the clock at suitable intervals are inserted insulating-trunnions *t*, each provided with contact-points *u u'*, projecting into the path of the brush *r*. When the said brush touches two adjacent contact-points, it closes the circuit of the battery *G* and causes the magnet *E* to become active and attract the armature *o*. Before the contact of the brush *r* with the points *u u'* is made the tickets dropped through the tube *D* fall into the compartment *c*, which indicates that the person presenting the ticket is early, while after the contact is formed and the deflector *i* is tilted in the manner already described the tickets dropped into the tube *D* are deflected in the "late" compartment *b*. When the drawer *C* is withdrawn from the box *A*, the engagement of the time-plate *p* with the ball *m* on the rod *j* lifts the ball and rod and resets the deflector *i* and the plate *k*. Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a comparted receptacle and a single stationary tube delivering into one compartment thereof, of a movable normally-stationary deflector beneath the said tube and normally out of the path from it to said compartment, and a clock mech-

anism electrically connected with the deflector to release it at a predetermined time and permit it to move across said path and direct the check into another compartment, substantially as set forth.

2. The combination, with a comparted receptacle and a single stationary tube delivering into one compartment thereof, of a movable normally-stationary deflector beneath the said tube and normally out of the path from it to said compartment, an indicator connected with the deflector, and a clock mechanism electrically connected with the deflector to release it at a predetermined time and permit it to move across said path, direct the check into another compartment, and operate the indicator, substantially as set forth.

3. In an automatic electric time-check, the combination, with the deflector, of an electromagnet for operating the same and a clock provided with a circuit-closer for operating the magnet, substantially as specified.

4. In an automatic electric time-check, the combination of the comparted drawer *C*, the case *B*, provided with the tube *D*, the electromagnet *E*, the armature-catch *o*, the deflector *i*, and the indicating-plate *k*, substantially as specified.

5. The combination, with the deflector-lever *h* and the catch-armature *o*, of the rod *j*, provided with the ball *m*, and the inclined plate *p*, attached to the drawer, substantially as specified.

CHARLES K. JARDINE.

Witnesses:

THOMAS J. SEMPLE,
WALTER REYNOLDS.