May 23, 1933. G. H. HILL 1,910,796

TIME CLOCK

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Fig. 1.

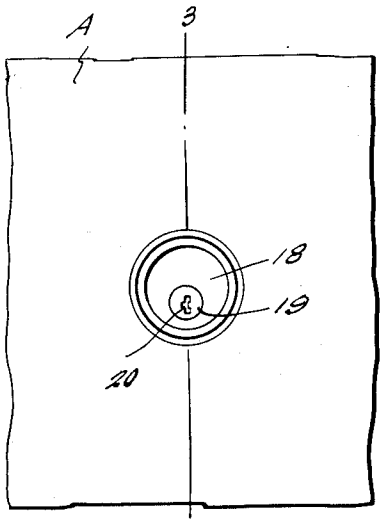


Fig. 2.

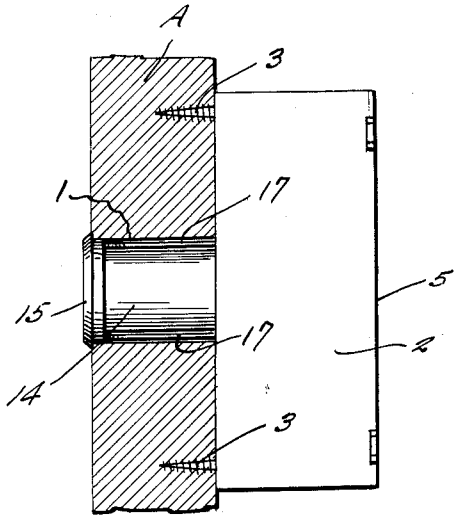


Fig. 3.

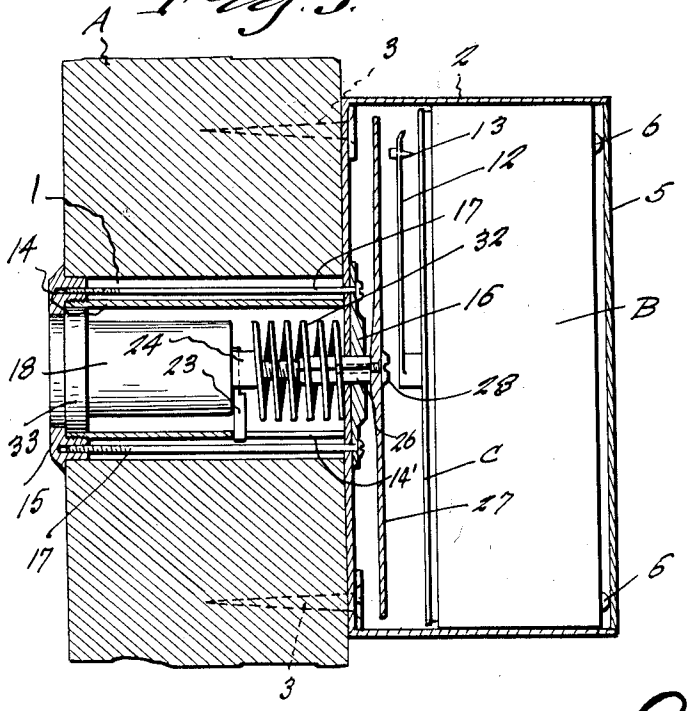
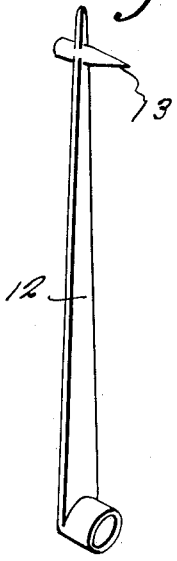


Fig. 19.



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Fig. 4.

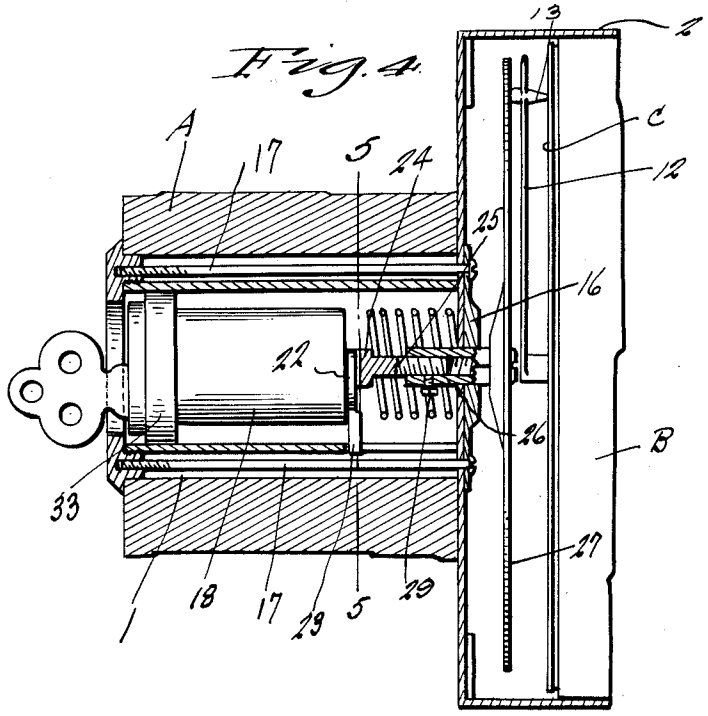


Fig. 6.

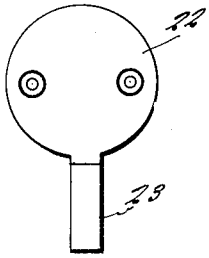


Fig. 7.

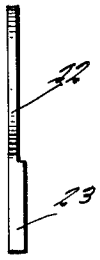


Fig. 5.

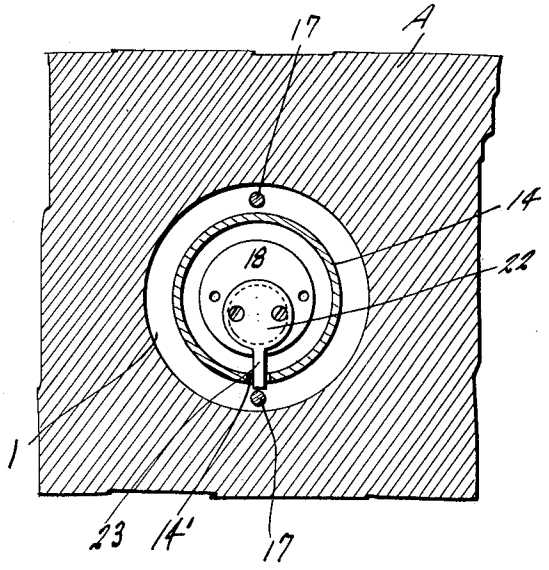
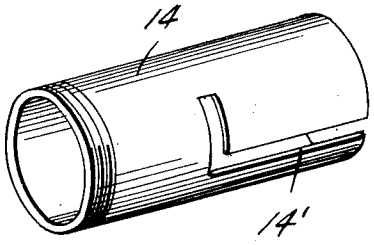


Fig. 8.



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Fig. 9.

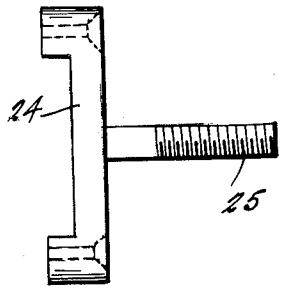


Fig. 10.

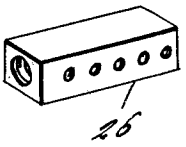


Fig. 12.

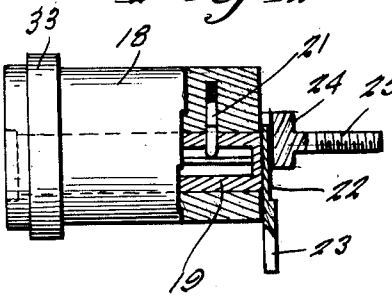


Fig. 13.

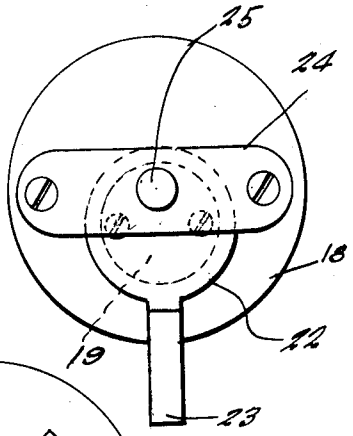


Fig. 18.

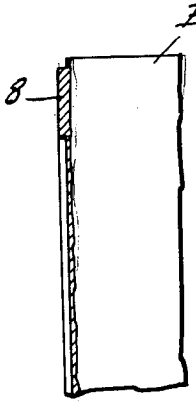
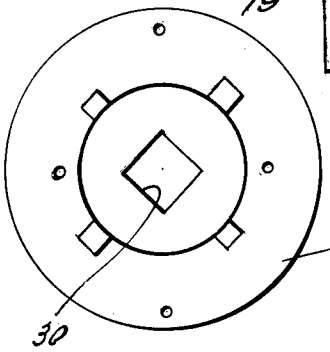


Fig. 11.



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Fig. 14.

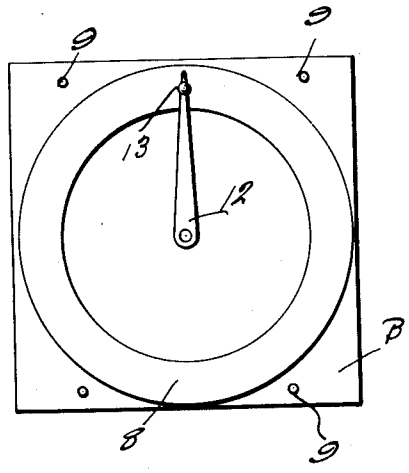


Fig. 17.

Fig. 20.

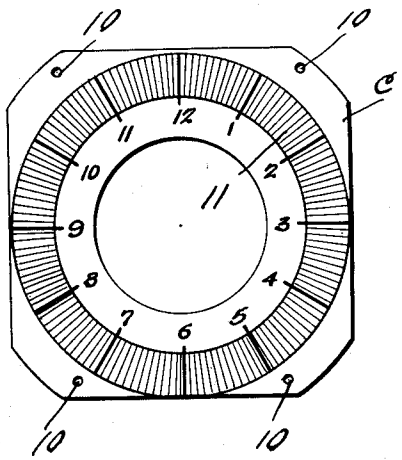
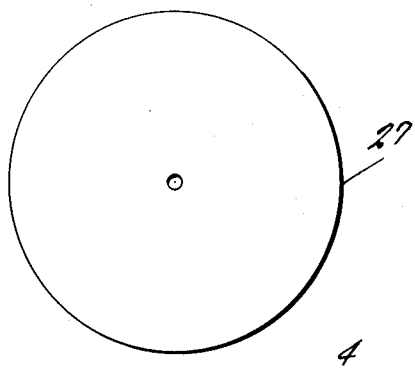
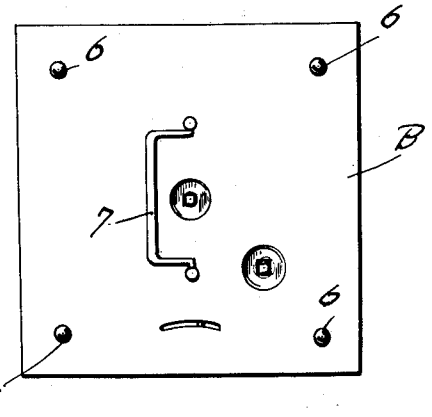


Fig. 15.





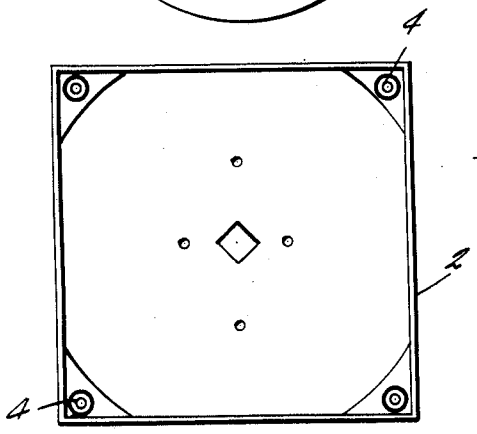


Fig. 16.

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Patented May 23, 1933 1,910,796

UNITED STATES PATENT OFFICE

GEORGE HENRY HILL, OF JACKSONVILLE, FLORIDA

TIME CLOCK

Application filed May 19, 1932. Serial No. 612,333.

This invention relates to a time clock, the general object of the invention being to provide means whereby the insertion of a key in a lock and the turning of the key and then the depression of a part of the lock will cause a pointed member on the hand of the clock to punch a dial sheet, with spring means for returning the parts to normal position.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a fragmentary face view of a door or other supporting member with which the invention is attached.

Fig. 2 is a side view with said supporting member in section.

Fig. 3 is a section on line 3—3 of Fig. 1.

Fig. 4 is a similar view but with the part pressed inwardly to cause the punching operation.

Fig. 5 is a section on line 5—5 of Fig. 4.

Fig. 6 is a view of the arm carrying plate.

Fig. 7 is an edge view thereof.

Fig. 8 is a view of the slotted cylinder.

Fig. 9 is a view of the yoke carrying the threaded stem.

Fig. 10 is a view of the block for connecting the stem to the stem of the finger operating plate.

Fig. 11 is a view of the rear plate for connecting the parts to the supporting member.

Fig. 12 is a side view of the lock casing with the parts in section.

Fig. 13 is an end view of the lock casing with the yoke member and bolt carrying plate attached thereto.

Fig. 14 is a view of the clock face.

Fig. 15 is a rear view of the clock.

Fig. 16 is a view of the clock holding casing.

Fig. 17 is a view of the push plate.

Fig. 18 is a fragmentary sectional view through the front part of the clock casing.

Fig. 19 is a view of the hand or finger.

Fig. 20 is a view of the time card or dial.

In these drawings, the letter A indicates a part of a door or other supporting member to which the device is connected, this door having an opening 1 therein for receiving the lock parts. Numeral 2 indicates a casing for holding the clock B, this casing having one face attached to the door by the screws 3 which pass through the holes 4 in the corners of said face, the other face of the casing being composed of a hinged door 5. The rear face of the clock is provided with the projections 6 of resilient material or the like, against which the door 5 bears, and said rear face carries the handle 7 which facilitates the removal of the clock from the casing and its insertion therein and it also carries the usual adjusting and winding means as shown.

The front face of the clock is formed with a raised annular part 8 and this face of the clock is provided with the upper and lower pairs of pins 9, the lower pair of pins being placed closer together than the upper pair as shown in Fig. 14, so as to make it impossible to improperly place the time card C on the clock. This card is provided with the holes 10 for receiving the pins and the dial which is shown generally at 11. The finger or hand 12 of the clock is formed with the pointed member 13 on its outer end so that when the push plate, hereinafter to be described, is forced inwardly, it will strike this member and thus press the point of the member against the card to punch the same.

A cylinder 14 is located in the hole 1 of the member A and a ring-shaped member 15 is threaded to the outer end of the cylinder and has a flange thereon bearing against the outer face of the member A and the inner end of the cylinder 14 bears against the inner face of the casing 2. A plate 16 is placed against the central part of the bottom of the casing 2 and long bolts 17 pass through this plate and through the bottom of the casing and through the opening 1 and have their ends threaded in the member

15 as clearly shown in Fig. 3. Thus the parts are held to the member A.

The cylinder 14 has an L-shaped slot 14′ therein as clearly shown in Fig. 8 and a cylindrical lock casing 18 is rotatably arranged in the cylinder 14, with its outer part fitting in the member 15. This casing 18 carries the usual key barrel 19 formed with the usual key slot 20 and provided with the usual tumblers 21 and a disk 22 is fastened to the inner end of the barrel 19 and has an arm 23 thereon which operates in the slot 14′ of the cylinder 14.

A yoke 24 is fastened to the inner end of the lock casing 18 and carries a threaded stem 25 which is threaded in an end of a block 26, the other end of which is connected to a push plate or disk 27 by a screw 28, thus by turning the block 26 on the shaft 25, the distance between the push disk 27 and the lock can be adjusted. The parts are held in adjusted position by the small screw 29 shown in Fig. 4.

The block passes through a non-circular hole 30 in the plate 16 and a similar hole 31 in the bottom of the casing 2, so that the parts are prevented from rotating. A spring 32 acts to hold the lock casing 18 in a position with the collar 33 thereon engaging a shoulder on the member 15 as shown in Fig. 3. In this position of the parts, the arm 23 will engage the transverse part of the slot 14′, when the key is turned to locking position, so that it will be impossible to move the lock casing inwardly.

However, when the key is inserted and the lock barrel turned, the arm 23 is moved out of the transverse part of the slot into the longitudinal part thereof so that pressure upon the lock casing 18 will force the parts inwardly against the action of the spring 32 and thus cause the push plate 27 to engage the projection 13 on the hand 12 and thus force the point of said projection into the time card to properly mark the same.

Then pressure is removed from the lock casing so that the spring will return the parts to position occupied in Fig. 3 after which the user can place the arm 23 in the transverse part of the slot 14′ by turning the key and then the key is withdrawn so that it is impossible to move the device from this position until the key is again inserted and turned.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts provided that such changes fall within the scope of the appended claims.

Having thus described my invention, what I claim as new is:—

1. In combination with a time clock having a pointed projection on a hand thereof, and a time chart placed on the face of the clock, a casing attached to a supporting member and containing the clock, a cylinder passing through the supporting member, a lock casing slidably arranged in the cylinder, an arm on the barrel of the lock casing and said cylinder having an L-shaped slot with which the arm engages, a projection connected with the lock casing and passing through the first mentioned casing, a push plate connected with the projection and located in the casing and engaging the pointed projection on the hand of the clock when the lock casing is pushed inwardly after the barrel thereof is turned by a key to place the arm in a longitudinal part of the slot.

2. In combination with a time clock having a pointed projection on a hand thereof, and a time chart placed on the face of the clock, a casing attached to a supporting member and containing the clock, a cylinder passing through the supporting member, a lock casing slidably arranged in the cylinder, an arm on the barrel of the lock casing and said cylinder having an L-shaped slot with which the arm engages, a projection connected with the lock casing and passing through the first mentioned casing, a push plate connected with the projection and located in the casing and engaging the pointed projection on the hand of the clock when the lock casing is pushed inwardly after the barrel thereof is turned by a key to place the arm in a longitudinal part of the slot, and a spring for returning the lock casing to its outer position.

3. In combination with a time clock having a recording hand, a plunger having a part thereon for moving the hand to operative position, a lock barrel carried by a part of the plunger, an arm connected with the barrel, and a member in which the plunger is slidably arranged, said member having a keeper opening therein for receiving a part of the arm on the barrel when the barrel is turned to locked position to prevent movement of the plunger to operative position.

In testimony whereof I affix my signature.

GEORGE HENRY HILL.