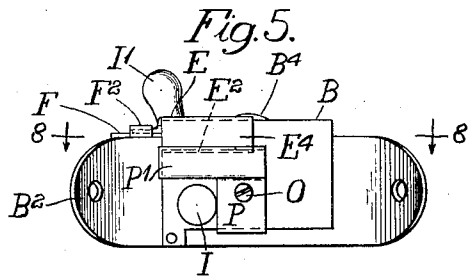
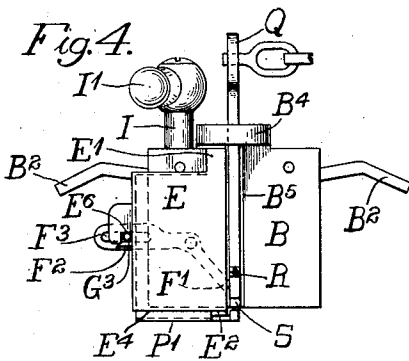
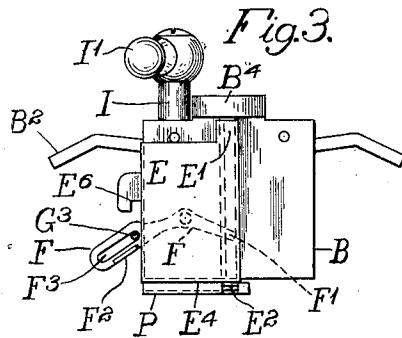
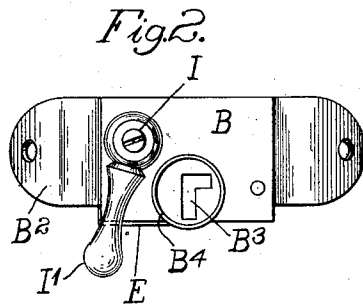
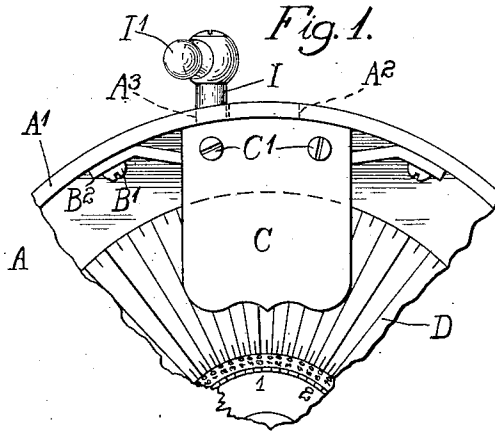


A. BEYER.  
 WATCHMAN'S CLOCK.  
 APPLICATION FILED JAN. 14, 1910.

1,003,227.

Patented Sept. 12, 1911.

2 SHEETS—SHEET 1.



Witnesses

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 Attorneys

1,003,227.

Patented Sept. 12, 1911.

2 SHEETS—SHEET 2.

Fig. 6.

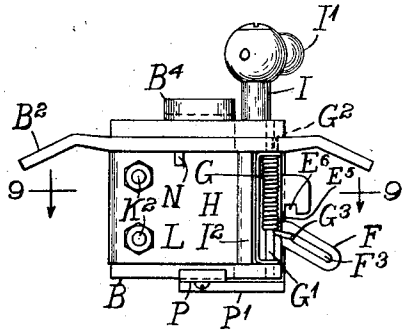


Fig. 7.

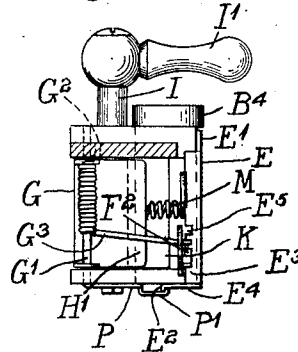


Fig. 8.

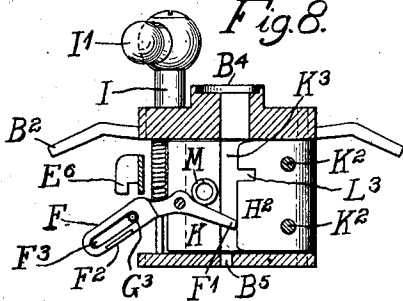


Fig. 9.

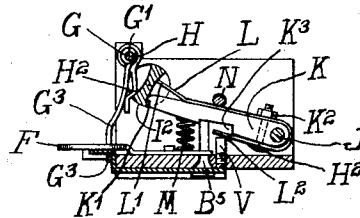


Fig. 10.

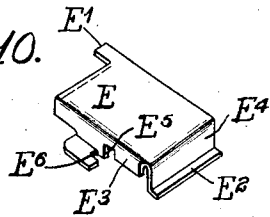


Fig. 11.

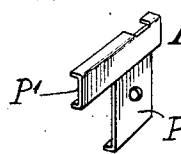


Fig. 12.

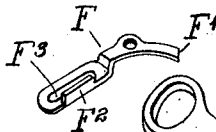
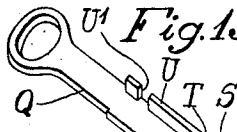


Fig. 13.



Witnesses

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# UNITED STATES PATENT OFFICE.

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WATCHMAN'S CLOCK.

1,003,227.

Specification of Letters Patent. Patented Sept. 12, 1911.

Application filed January 14, 1910. Serial No. 538,021.

*To all whom it may concern:*

Be it known that I, ALOIS BEYER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Watchmen's Clocks, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that part of the clock known as the recording mechanism and in which the record is made by a key insertible therein and the record made on a revolving dial by a movement of the key by the operation of the mechanism with which it is in contact.

The object of my invention is to so close the keyway in said mechanism as to prevent tampering with the record dial by any means insertible in the keyway, and to prevent the making of a record except by the special key by which the mechanism in the particular clock is set for the operation of recording on the dial.

The manner in which I accomplish my object is described in the following specification and illustrated in the accompanying drawings in which:

Figure 1 is a rear elevation of part of the clock case, the back being removed to show the position of the recording mechanism and part of a record dial. Fig. 2 is a top plan view of the recording mechanism disconnected from the clock case shown in Fig. 1. Fig. 3 is a rear elevation similar to Fig. 1, the top plate and dial being removed. Fig. 4 is a view similar to Fig. 3, but with the key inserted. Fig. 5 is an end view of the parts shown in Fig. 3. Fig. 6 is a view from below of the parts shown in top view in Figs. 1, 4 and 8. Fig. 7 is a view from the left of the parts shown in Fig. 3. Fig. 8 is a sectional view on the line 8—8 Fig. 5. Fig. 9 is a sectional view on the line 9—9 Fig. 6. Fig. 10 is a perspective view of the shutter. Fig. 11 is a perspective view of the guide plate. Fig. 12 is a perspective view of the double ended lever, and Fig. 13 is a view of the register key.

In the drawings, A is the clock case, circular in form, and provided with a cover not shown. This case and cover incloses the clock and recorder mechanism and pre-

vents all access thereto except through a keyway hereinafter described.

B is a frame attached to the interior of the rim of the case A by the screws B<sup>1</sup> which extend through the braces B<sup>2</sup> into the rim A<sup>1</sup> as shown in Fig. 1. In this frame is a keyway B<sup>3</sup> shown in Fig. 2. This aperture is encircled by a projecting ring B<sup>4</sup> which extends through an aperture A<sup>2</sup> in the rim A<sup>1</sup> as shown by the dotted lines in Fig. 1. Attached to the frame B is a top plate C secured at one end by the screws C<sup>1</sup>. This plate is spaced from the frame to permit the rotation between those parts of the dial D. In that part of the frame covered by the dial D and plate C is a slot B<sup>5</sup>, shown in Figs. 4 and 8 and by the dotted lines in Fig. 3. This slot extends from the ring B<sup>4</sup> to the other end of the frame B, as shown in Figs. 4 and 8, and is adapted for the insertion and movement therein of a key as shown in Fig. 4. Slidably supported on this slotted part of the frame is a shutter E shown in detail in Fig. 10, and in position on the frame in Fig. 3 over the slot B<sup>5</sup> and locked in that position by the lip F<sup>2</sup> of the lever F shown in detail in Fig. 12, and hereinafter described. This shutter is also shown in Fig. 4 in the open position permitting the key to be raised through the slot as hereinafter described. The end E<sup>4</sup> of the shutter is shown in Fig. 5, slidably secured on the frame.

Pivotaly secured to the under side of the slotted part of the frame is a double ended lever F. One end F<sup>1</sup> of this lever extends across the slot B<sup>5</sup>, as shown in Figs. 3 and 8. The other end of the lever extends beyond the frame and has a lip F<sup>2</sup> and an elongated aperture F<sup>3</sup>. The lip F<sup>2</sup> is adapted, when the shutter E is in the position over the slot B<sup>5</sup>, to engage the part E<sup>3</sup> of the shutter shown in Figs. 3 and 10 to lock it in that position; and also to register with the notch E<sup>5</sup> in the shutter E and thereby permit the shutter to be moved over said lip when the lever is forced by the key into the position shown in Fig. 4.

Extending through the aperture F<sup>3</sup> of the lever F is a spring G coiled on a rod G<sup>1</sup> secured in the frame B, as shown in Fig. 7. One end G<sup>2</sup> of this spring is firmly held in a notch in the frame and the free end G<sup>3</sup> projects through the aperture in the lever F and presses against the shutter E and is

adapted when moved by the lever to enter the hook  $E^6$  as shown in Fig. 4. Pivoted on the rod  $G^1$  is a shield H. The free part  $H^1$  of this shield is in contact with the free end of the spring G intermediate of said spring and an operating shaft I as shown in Fig. 9. This shaft is journaled in the frame, parallel with the slot therein and the rod  $G^1$  and is provided with an operating handle  $I^1$ . That part  $I^2$  of the shaft between the bearing walls of the frame has oppositely disposed concave faces as shown in section in Fig. 9 and is thereby adapted when rotated, to engage and move the shield H and other parts hereafter to be described. Pivotaly supported on a rod J secured in the frame B, parallel with the shaft I, is a key receiver K. This receiver extends from wall to wall of the frame, and the free end  $K^1$  is adapted to be engaged by the part  $I^2$  of the shaft I as shown in Fig. 9.

Secured on the receiver by the screws  $K^2$  is a flat spring L. One end  $L^1$  of this spring is of substantially the same length as the end  $K^1$  of the receiver K and is thereby adapted to be engaged by the concave sides of the shaft as shown in Fig. 9. The other end  $L^2$  of the spring is adapted to engage one side of an angular key as it is inserted in the keyway, and to hold it in contact with a recessed part  $K^3$  of the receiver K. Under the opposite side of the end  $L^2$  of this spring in a position corresponding with a notch  $L^3$  therein, shown in Fig. 8, is a screw stud V in the frame B as shown in Fig. 9, the purpose of which is hereinafter described.

Compressed between the end  $K^1$  of the receiver K and the frame is a coil spring M adapted to hold the receiver in normal position against a stop pin N fixed in the frame as shown in Figs. 6 and 9. Secured by the screw O on the end of the frame is a guide plate P, which is shown in perspective in Fig. 11 and shown in position on the frame in Fig. 5. The channel  $P^1$  of this plate is adapted to receive the part  $E^2$  of the shutter shown in Fig. 10 and thereby hold the shutter in slidable position on the frame as shown in Figs. 3, 4 and 5.

When the several parts of the recording mechanism are constructed as described, their positions and operation are as follows: The shutter E under pressure of the end  $G^3$  of the spring G in contact with the part  $E^2$  of the shutter is normally in the position shown by the dotted lines in Figs. 3 and 5, in which position it completely covers the slot  $B^5$  and is locked in that position by the lip  $F^2$  of the lever F and thus prevents the insertion of any instrument through the keyway and key slot and thereby prevents access to the dial except by means of the special key. The shutter is held in slidable contact with the slotted face of the frame

by the end  $E^1$  of the shutter which slides between the end of the plate C secured by the screws  $C^1$  and by the part  $E^2$  held in the channel  $P^1$  of the guide plate P, as shown in Figs. 3 and 5. The lever F is held in a normal position to lock the shutter as shown in Figs. 3 and 8, by the pressure of the free end  $G^3$  of the spring G. In this normal position the end  $F^1$  of this lever extends across the keyway beneath the slot  $B^5$  as shown, in Figs. 3 and 8. The receiver K under the pressure of the spring M is held together with the end  $L^1$  of the spring L in a normal position against the stop pin N, the free end  $K^1$  being in contact with one of the concave sides of the shaft I as shown in Fig. 9, and the part  $H^1$  of the shield H is held in contact with the opposite concave side of the shaft under pressure of the spring G. With the parts in these normal positions the key Q is inserted in the keyway with the recording point R in line with the slot  $B^5$ , as shown in Fig. 4. As the key is advanced the end S strikes the end  $F^1$  of the lever F and presses it forward to the position shown in Fig. 4. This movement of the lever F by the key forces the end  $G^3$  of the spring G into the hook  $E^6$  of the shutter E and the lip  $F^2$  of the lever is moved into line with the notch  $U^1$  in the side U of the key registers with the notch  $L^3$  of the spring L, and the end of the screw stud V. The handle  $I^1$  is then moved to the right, the shaft I being turned thereby. This movement of the shaft acts first on the shield H which actuates the spring G, thereby moving the end  $G^3$  in the aperture  $F^3$  of the lever F, which being engaged in the hook  $E^6$  draws the shutter from over the slot  $B^5$  as shown in Fig. 4, the continued movement of the shaft then acts upon the end  $L^1$  of the spring L, thereby pressing the receiver K against the angle edge of the key forcing the point R through the slot  $B^5$  into contact with the dial D which is held by the plate C against pressure of the key, as a result of which the part R indents the face of the dial and makes a record. The pressure of the point R of the key on the dial is regulated by the strength of the spring  $L^1$  on which the shaft operates. As the shaft is rotated and the convex edge of the shaft passes the end  $L^1$  of the spring L, the receiver under pressure of the spring M moves back to its normal position. The key is forced by the end  $L^2$  of the spring L into the keyway within the face of the frame, the shield is free to be moved back to its normal position against the concave side of the shaft and the spring G is thereby released and forces the shutter back over the slot  $B^5$ . The key being then withdrawn, the end  $F^1$  of the lever F is released and the pressure of the spring G in the aperture  $F^3$  forces the lever into its normal position in which it

locks the shutter and the slot is thereby securely closed.

The keys are individualized by the location of the notch  $L^3$  in the spring  $L$  and the location of the pin  $V$  in the frame, the notch  $U^1$  in the key being made to correspond in size and position with the size and location of such pin.

The shaft  $I$  is preferably provided with ratchet mechanism not shown, so that the shaft can be rotated in but one direction for the purpose of preventing any reverse movement of the shaft against the end  $K^1$  of the receiver  $K$  when in the normal position shown in Fig. 9, and avoiding contact with the external portion of the key as shown in Fig. 4.

What I claim and desire to secure by Letters Patent is:

1. In a clock of the kind described, the combination of a recording mechanism comprising a main frame having a key hole and key slot, a double ended lever pivotally supported in said frame transversely of said key hole and slot and adapted to be moved by a key insertible therein, a spring supported in said frame extending through an elongated aperture in said lever and adapted to return said lever when moved by a key and released therefrom to a normal position, a shield pivotally supported in said frame in contact with said spring, a shaft in said frame in contact with said shield adapted when rotated to actuate said shield and spring, a shutter slidably supported on said frame and pressed by said spring and thereby held in a normal position over said key slot in said frame, said shutter being adapted to be moved on said frame by said spring from over said key slot, and a guide member secured on said frame adapted to support and guide said shutter.

2. In a clock of the kind described, the combination of recording mechanism, a frame for said mechanism having a key hole and key slot, a double ended lever pivotally supported in said frame, one end adapted to be engaged by the insertion of a key in said keyhole and slot, the other end extending beyond the frame and having an elongated aperture and lip, a spring in said frame engaged in the aperture of said lever, a shield pivoted in said frame and having its free end in engagement with said spring, a shaft in said frame adapted when rotated to engage and move said shield and spring, means for rotating said shaft, a shutter slidably on said frame over said key slot adapted to be engaged by said lever and spring, and means for securing said shutter and guiding its movements.

3. In a clock of the kind described, the combination of recording mechanism, a frame for said mechanism having a key

hole and key slot, a double ended lever having an aperture and lip movable by a key inserted in said hole and slot, a spring in said frame, the free end of said spring extending through the aperture in said lever, a shield pivoted in said frame adapted to actuate said spring, a shaft journaled in said frame adapted when rotated to actuate said shield and spring, means for rotating said shaft, a shutter actuated by said spring and slidably supported on said frame, and means on said frame adapted to guide the movements of said shutter.

4. In a recording mechanism of the kind described, the combination of a frame having a key hole and key slot, a double ended lever pivoted in said frame transversely of said slot and movable by a key inserted therein, said lever having an aperture and lip, a spring engaged in said frame and adapted to actuate said lever, a shutter supported in said frame, a shield pivoted in said frame adapted to actuate said spring, a shaft journaled in said frame in contact with said shield and adapted when rotated to operate said shield, spring and shutter, means for rotating said shaft, a shutter slidably supported on said frame over said slot, said shutter being operated by said spring, and means adapted to guide the movement of said shutter.

5. In a recording mechanism of the kind described, the combination of a frame having a key hole and key slot, a double ended lever pivoted in said frame and movable by a key inserted in said hole and slot, said lever having an aperture therein, a spring in said frame adapted to engage and actuate said lever, a shield pivoted in said frame in contact with said spring, a shaft journaled in said frame adapted when rotated to actuate said shield and to thereby move said spring, means for operating said shaft, a shutter slidable on said frame adapted to be engaged and operated by said spring, and a guide secured on said frame adapted to hold said shutter in slidable position on said frame.

6. In a recording mechanism of the kind described, the combination of a frame having a key hole and key slot, a double ended lever pivoted in said frame and movable by a key inserted in said hole and slot, one end of said lever having an aperture therein, a spring in said frame adapted to actuate said lever, a pivoted shield in said frame adapted to be moved and to thereby actuate said spring, a shaft journaled in said frame, said shaft having two flattened opposite sides adapted to engage and actuate said shield and spring when rotated, means on said shaft for rotating the same, a shutter slidably secured on said frame and adapted to cover the slot therein and to be engaged and operated by said spring,

and means on said frame adapted to guide its movements.

7. In a recording mechanism of the kind described, the combination of a frame having a key hole and key slot, a double ended lever pivoted in the frame and movable by a key inserted in said hole and slot, the opposite end having an aperture therein, a spring adapted to engage said lever and to actuate the same, a pivoted shield, a shaft journaled in said frame adapted when rotated to engage and move said shield and to thereby actuate said spring, a shutter slidably supported on said frame adapted when in a normal position to cover and close said key slot therein, said shutter being adapted to be engaged by a projection on said lever and to be thereby held in said normal position over said slot and having a notch adapted when said lever is moved by a proper key to register with said projection on said lever and thereby release said shutter, a hook part on said shutter adapted to be engaged by said spring, movement of said spring when so engaged drawing said shutter over the projection on said lever and from said key slot in said frame, and means on said frame adapted to guide the movements of said shutter.

8. In a mechanism of the kind described, the combination of a frame having a slotted keyway, a lever therein movable by a key inserted in said keyway, a spring adapted to actuate said lever, a shutter slidably secured in said frame, a shaft journaled in the frame adapted to actuate said spring and said shutter, said shutter adapted to cover said keyway and to be held in that position by said lever, and a hook carried by said shutter adapted to be engaged by said spring to move said shutter and open the keyway for the movement of a key therein.

9. In a recording mechanism of the kind described having a frame and key slot therein, a spring and means for actuating said spring, the combination therewith of a shutter slidably supported on said frame, said shutter being actuated by said spring and adapted in its normal position to cover said key slot, said shutter having a notched flanged part adapted to limit its movement on said frame and to engage said spring, and a flanged part adapted to guide its movement on said frame, and means attached to said frame adapted to engage said guiding part and to slidably secure said shutter on said frame.

10. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing, a key for making a characteristic record on such sheet, a keyway for such key, a shutter between the keyway and the record sheet, a retaining lever extending across the key-

way and normally in engagement with the shutter, and recording mechanism associated with the keyway, insertion of the key into the keyway serving to operate the lever and release the shutter and operation of the recording mechanism serving to open the shutter and bring the key into engagement with the record sheet.

11. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing, a key for making a characteristic record on such sheet, a movable receptacle for receiving the key, a shutter between such receptacle and the record sheet, a retaining lever extending into the path of the key and normally in engagement with the shutter, recording mechanism associated with such receptacle, insertion of the key into the receptacle and operation of the recording mechanism serving to move the retaining lever to its releasing position and to move the shutter from its normal position, and a spring adapted to return such shutter and lever to normal position after the record is made and the key is withdrawn.

12. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing, a key for making a characteristic record on such sheet, a movable receptacle for receiving the key, a shutter between such receptacle and the record sheet, a retaining lever extending into the path of the key, recording mechanism associated with such receptacle, insertion of the key into the receptacle and operation of the recording mechanism serving to move the retaining lever to its releasing position and to move the shutter from its normal position, and a spring adapted to return such shutter and lever to normal position after the record is made and the key is withdrawn, such spring being out of engagement with the shutter when the latter is in its normal position.

13. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing, a key for making a characteristic record on such sheet, a movable receptacle for receiving the key, a shutter between such receptacle and the record sheet, a retaining lever extending into the path of the key, recording mechanism associated with such receptacle, insertion of the key into the receptacle and operation of the recording mechanism serving to move the retaining lever to its releasing position and to move the shutter from its normal position, and a spring adapted to return such shutter and lever to normal position after the record is made and the key is withdrawn, such spring being out of engagement with the shutter when the latter is in its normal position and brought into engagement with such shutter by motion of

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the retaining lever to its releasing position.

14. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter between such member and the record sheet, and mechanism for retaining the shutter in its normal position.

15. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter between such member and the record sheet, and mechanism for retaining the shutter in its normal position, insertion of the key into such member serving to move the retaining mechanism to its releasing position.

16. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter between such member and the record sheet, mechanism for retaining the shutter in its normal position, and recording means adapted by its operation to move such member to bring the key into engagement with the record sheet.

17. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter between such member and the record sheet, mechanism for retaining the shutter in its normal position, recording means adapted by its operation to move such member to bring the key into engagement with the record sheet, a connecting member extending from the recording mechanism into engagement with the shutter when the key is in place in the clock, such connecting member adapted upon operation of the recording mechanism to move the shutter from its normal position and permit the key to be brought against the record sheet.

18. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter between such member and the record sheet, mechanism for retaining the shutter in its normal position, recording means adapted by its operation to move such member to bring the key into engagement with the record sheet, a connecting member extending from the recording mechanism into engagement with the shutter when the key is in place in the clock, such connecting member adapted upon operation of the re-

ording mechanism to move the shutter from its normal position and permit the key to be brought against the record sheet, such connecting member being operative to move the shutter only when the retaining mechanism is actuated by the insertion of the key.

19. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter between such member and the record sheet, a lever extending into the path of the key and adapted when the key is not in place in the clock to hold the shutter in its normal position, and a spring lever tending to hold the holding lever in its normal position and adapted upon actuation of the locking lever by insertion of the key to engage and operate such shutter.

20. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter adapted to occupy either an operative or an inoperative position between such member and the record sheet, and recording mechanism associated with such member to operate it to bring the key contained therein against the record sheet when the shutter occupies its inoperative position.

21. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter adapted to occupy either an operative or an inoperative position between such member and the record sheet, a lever normally extending into the path of the key to hold the shutter in its operative position, insertion of the key serving to move the holding lever to its releasing position, recording mechanism associated with the key receiving member and a connecting lever extending from the recording mechanism to the holding lever such connecting lever adapted to be moved into engagement with the shutter when the holding lever is moved to its releasing position and to move such shutter to its inoperative position when the recording mechanism is actuated.

22. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member, a shutter adapted to occupy either an operative or an inoperative position between such member and the record sheet, a lever normally extending into the path of the key to hold the shutter in its operative position, insertion of the key serving to move the holding lever to its releasing position,

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- recording mechanism associated with the key receiving member and a spring lever extending from the recording mechanism to the holding lever, such spring lever adapted  
 5 to be moved into engagement with the shutter when the holding lever is moved to its releasing position and to move such shutter to its inoperative position when the recording mechanism is actuated.
- 10 23. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing and adapted to receive a characteristic record from a suitable key, a key receiving member,  
 15 a shutter adapted to occupy either an operative or an inoperative position between such member and the record sheet, a lever normally extending into the path of the key to hold the shutter in its operative position,  
 20 insertion of the key serving to move the holding lever to its releasing position, recording mechanism associated with the key receiving member and a spring lever extending from the recording mechanism to the  
 25 holding lever such spring lever adapted to be moved into engagement with the shutter when the holding lever is moved to its releasing position and to move such shutter to its inoperative position when the recording mechanism is actuated, such spring lever  
 30 adapted to move the shutter to its operative position and the holding lever into the path of the key when the recording mechanism is in its normal position and the key is removed from the clock.
- 35 24. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing for receiving a characteristic record from a suitable key, a shutter located between the key and the record sheet and adapted to occupy either an operative or an inoperative position, and mechanism controlled by the insertion of the key for holding the shutter in its  
 40 operative position.
- 45 25. In a watchman's clock, the combination of a casing, means for movably supporting a record sheet in the casing for receiving a characteristic record from a suitable key, a shutter located between the key and the record sheet and adapted to occupy either an operative or an inoperative position, recording mechanism adapted to move the shutter from its operative to its inoperative  
 50 position, recording mechanism adapted to move the shutter from its operative to its inoperative position, and mechanism adapted to bring the key into engagement with the record sheet, and holding mechanism under control of the key for normally retaining the shutter in its operative position.
- 55 26. In a watchman's clock, the combination of a casing, a key receiving member, a shutter disposed in the path of the key, and mechanism for holding the shutter in its normal position, insertion of the key into such member serving to move the holding  
 60 mechanism to its releasing position.
- 65 27. In a watchman's clock, the combination of a casing, a key receiving member, a shutter normally disposed in the path of the key, mechanism for holding the shutter in its normal position, and recording means distinct from the key adapted by its operation to remove the shutter from the path of the key and to move the key to make a record in the clock.  
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28. In a watchman's clock, the combination of a casing, a matrix, a key receiving member movable toward said matrix, a shutter adapted to occupy either an operative or an inoperative position relatively to such member, and recording mechanism distinct from the key associated with such member to operate it to make a record in the clock when the shutter occupies its inoperative position.  
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29. In a watchman's clock, the combination of a casing, a key which is insertible in one position and then movable within the clock out of that position to make a record, a shutter located in the path of the second  
 90 movement of the key and adapted to occupy either an operative or an inoperative position, and normally ineffective shutter operating mechanism brought into operating position by the initial insertion of the key, the second movement of the key being accompanied by the operation of said mechanism and the consequent movement of the shutter to its inoperative position.  
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30. In a watchman's clock, the combination of a matrix, a key receiving member movable toward and away from said matrix, a shutter adapted normally to occupy a position in front of said matrix, means for moving said key receiving member toward said  
 100 matrix, and mechanical connections for transmitting at least a part of said movement to move said shutter from before said matrix.  
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- In witness whereof, I hereunto subscribe  
 110 my name this 28th day of December, A. D. 1909.
- ALOIS BEYER.
- Witnesses:  
 ALBERT C. BELL,  
 LESLEY L. KENNEDY.