

J. SCHLENKER-GRUSEN.
WATCHMAN'S CLOCK.
APPLICATION FILED SEPT. 15, 1909.

991,460.

Patented May 2, 1911.

Fig: 1.

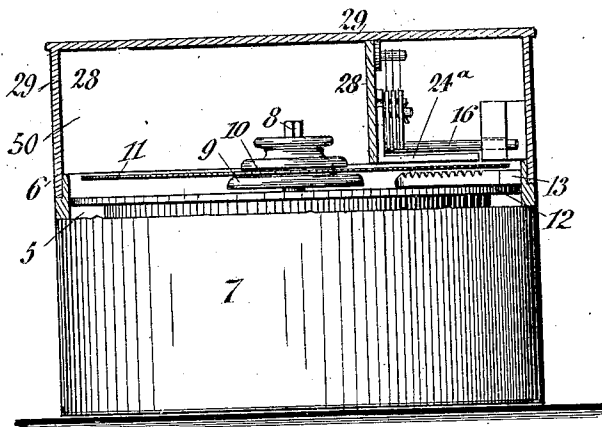


Fig: 2.

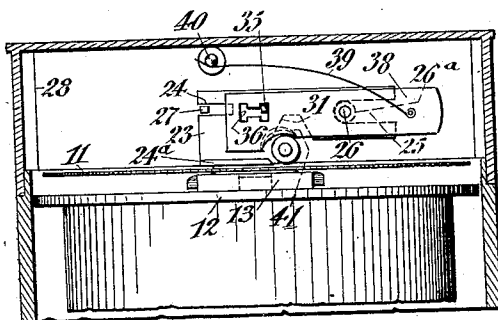


Fig: 3.

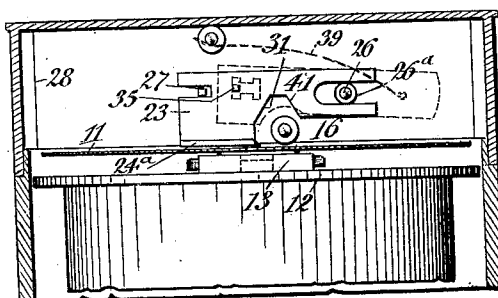
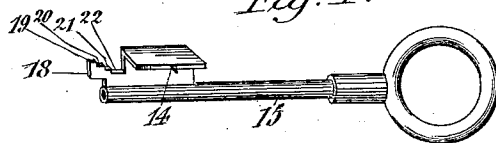


Fig: 4.



Witnesses.

S. Oruffer
J. A. Cook

Inventor
Jacob Schlenker-Grusen
By his Attorneys
Boepel & Boepel.

UNITED STATES PATENT OFFICE.

JAKOB SCHLENKER-GRUSEN, OF SCHWENINGEN, GERMANY.

WATCHMAN'S CLOCK.

991,460.

Specification of Letters Patent.

Patented May 2, 1911.

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To all whom it may concern:

Be it known that I, JAKOB SCHLENKER-GRUSEN, a citizen of the Empire of Germany, residing in Schweningen, in the Kingdom of Württemberg, in said Empire, have invented certain new and useful Improvements in Watchmen's Clocks, of which the following is a specification.

This invention relates to watchmen's clocks and more particularly to the portable kind and has for its object to provide a clock in which no other but true keys may be used and in which means are locked in position to prevent the use of the keys, which means must be unlocked before the key can be used to make a marking.

The nature of my invention consists in means in a watchman's clock normally in the way of the key intended to make the marking shiftable by the key so as to permit the making of a marking by said key, cooperating with means locking said shiftable means positively in position and requiring to be unlocked before the shifting can be done and the marking made by the key.

The invention also consists in the tumblers which prevent the making of a marking excepting by a true key.

In the accompanying drawing forming part of this specification, Figure 1 is a front view partly in section of a portable watchman's clock showing in end elevation an embodiment of my invention, Fig. 2 is a detailed side-view, Fig. 3 is also a detailed side-view, showing the parts in a different position, and Fig. 4 is a detailed perspective view of my improved key.

Similar characters of reference indicate corresponding parts throughout the several views.

Referring to the drawing and more particularly to Fig. 1, the clock-case 6 contains at its lower portion 7 the usual clock-works in the works-space 5 which serve to rotate the arbor 8 to which a disk 9 with pins 10 are secured, on which disk rests the usual paper-dial 11. Secured to the usual septum 12 dividing the works-space 5 from the lid-space 50 is a stationary marking plate 13 having matrices which are adapted to be engaged by a projecting matrix 14 of a key 15. The key engages a key-post 16 and on being rotated thereon serves to mark the dial interposed between the key and the matrix in the manner well-known.

In order to prevent a key other than a true

key being used, means are provided normally in the path of the key adapted to be locked in position combined with means releasing said locking means and shifting said first named means out of the path of the key. A sliding-plate 23 having a shutter-plate 24^a at the right angles thereto is arranged, which plate is adapted to normally extend over the matrix plate 13 so as to prevent any key from engaging the matrix-plate. The sliding plate 23 is provided with a slot 24 engaged by a pin 27 on a partition 28 and a slot 25 in the sliding plate 23 is engaged by a small collar 26^a on a pin 26 secured to the partition 28 which is in turn fastened to the lid 29 of the clock-case 6. On the insertion of the key having a cam 19 of proper height, this cam 19 will engage a recess 31 in the sliding-plate 23 and cause this sliding-plate with its shutter-plate 24^a to be moved out of the path of movement of the key so as to permit the key to enter one of the matrices and to make the proper marking on the dial. By the use of this plate, a marking can only be made when a true key is used.

In order to further secure against the use of a spurious or false key, the sliding plate 23 is provided with a pin 35 which is adapted to engage with a recess 36 in tumblers 38 having holes through which pass the pin 26, whereby they are suitably pivoted. Springs 39 are secured to the tumblers and engage with a fixed pin 40 fixed on the partition 28 and thereby serve to hold the tumblers in downward position. These pivoted tumblers 38 have recesses 41 at their lower ends which are adapted to be engaged by step-like projections 20, 21 and 22 of different elevations at the end of the key 15 and intermediate the cam 19 and matrix 14. By the engagement of the steps 20, 21 and 22 with the recesses 41 of the tumblers, the tumblers are raised against the action of the springs 39 and cause to have their H-shaped recesses 36 disengaged from the pin 35, so as to permit the movement of the tumblers in respect to the pin 35 whereby the shutter-plate 24^a is permitted to be moved away from its normal position above the matrix-plate 13 by the simultaneous engagement of the projection 19 with the recess 31 of the plate 33, whereby the matrices may be readily engaged by the key. While the key is marking the dial the sliding-plate is again locked in position and can only be moved to its original position by

the true engagement of the keys with the recesses of the plate and tumblers.

By means of my improved device only such keys may be used to make a marking which have parts necessary for the proper cooperation with the pivoted tumblers and no marking is capable of being made by any false or spurious key.

Therefore my invention consists in a watchman's clock having a key and a dial, a sliding plate normally held locked in the path of the key to prevent the key from making a marking, the sliding plate being shiftable by the key, and tumblers also shiftable by the key and locking said plate in the normal locked position, the tumblers when shifted to the proper height by the key permitting the sliding plate to be shifted so that the key can make a marking, the tumblers being adapted to lock the sliding plate also in said shifted position.

One embodiment of my invention has been shown, but I do not wish to be understood to limit myself to the same, since changes may be made therein without departing from the spirit and underlying principle of my invention, as for instance placing the marking mechanism in the workspace, without, however, providing a perforation in the septum, but simply letting the key work out its marking with its marking mechanism as is well known in the art.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a portable watchman's clock having a stationary marking plate and keys therefor, the combination of means normally in the way of the key, and over the marking plate, shiftable by the key intended to engage the marking plate so as to permit the making of a marking by said key, and means for locking said first named means positively in position.

2. In a watchman's clock, the combination of a sliding-plate having a recess adapted to be engaged by a true key to move the plate, and a tumbler cooperating with the plate and having recesses of a certain height adapted to be engaged by the true key to raise the tumblers, the plate being so arranged so as to prevent the marking by the key, unless released by all the tumblers.

3. In a watchman's clock, a sliding-plate

having a slot at one end engageable by a projection and having a projection, and a slot at the other end also engageable by a projection, said sliding-plate having a shutter-plate perpendicular thereto.

4. In a watchman's clock adapted to carry a dial and to receive a key, the combination of a plate slidable out of and into the path of the key and having a projection and a key-receiving face, and a spring-pressed tumbler having a shouldered slot adapted to receive said projection.

5. In a watchman's clock having keys and a dial, means in the clock for holding the dial in position to be engaged by the key, means normally in the path of the key to prevent the engagement of the key with the dial, and shiftable by the key to permit the engagement of the dial by the key to make a marking, and additional means shiftable by the key and adapted normally to lock said second named means in normal position.

6. In a watchman's clock having keys therefor and a dial, the combination of a sliding plate adapted when in normal position to prevent the making of a marking on the dial, and adapted to be moved by the key from said normal position, a plurality of tumblers cooperating with said plate and adapted to lock the same in said normal position and adapted to be raised by the keys and to release the sliding plate when all of the tumblers are raised to the proper height.

7. In a watchman's clock having keys therefor and a dial, the combination of a sliding plate adapted when in normal position to prevent the making of a marking on the dial and adapted to be moved by a key from said normal position, pivoted tumblers adapted to be raised by the key and provided each with a slot having a narrow intermediate portion and enlarged shouldered ends, and a projection carried by the sliding plate and adapted to project into the slots.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

J. SCHLENKER-GRUSEN.

Witnesses:

ERNEST ENTENMANN,
FRIDA KLAIBER.