

No. 711,712.

Patented Oct. 21, 1902.

A. BEYER.
WATCHMAN'S CLOCK.

(Application filed Nov. 9, 1900.)

(No Model.)

Fig. 1.

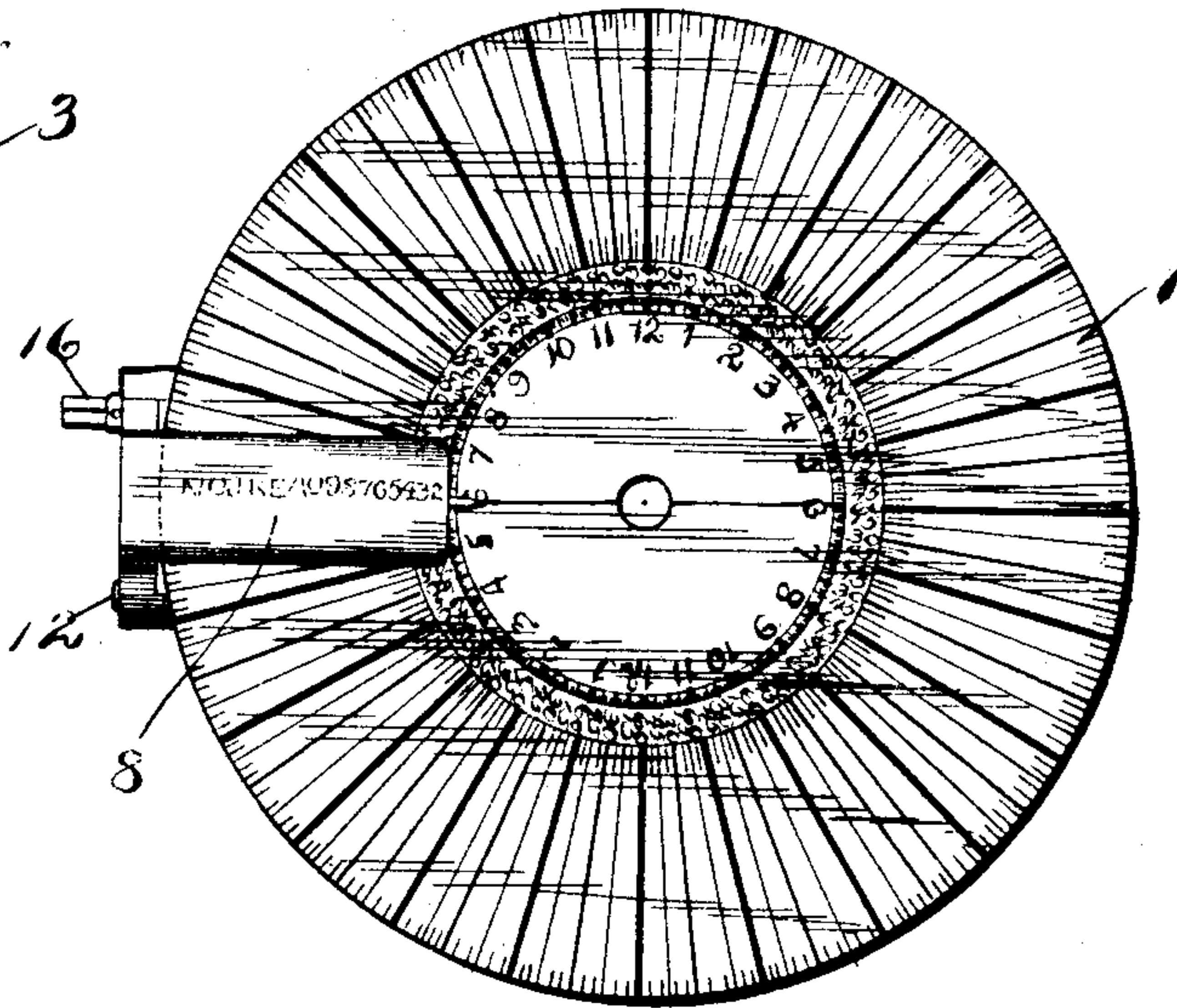
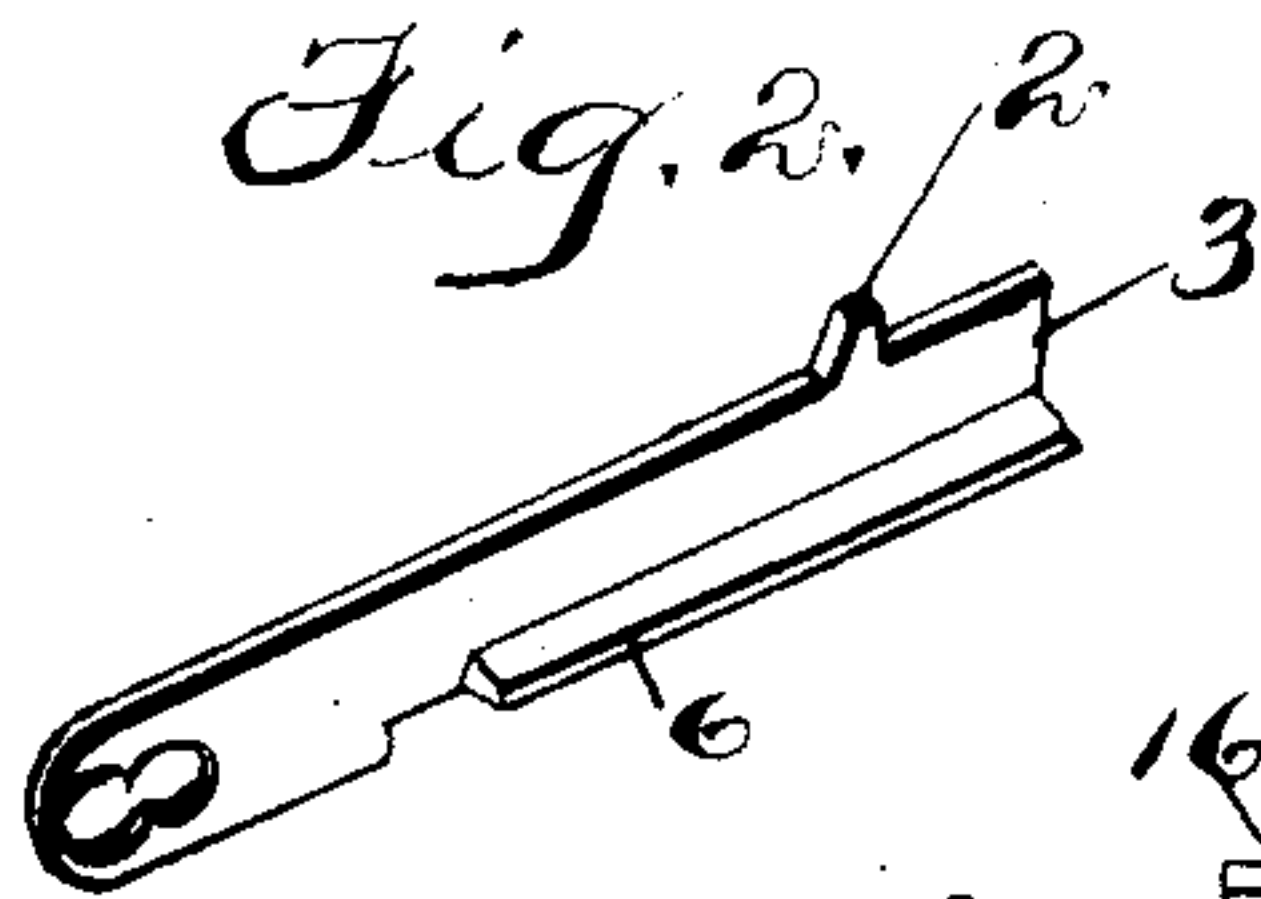


Fig. 3.

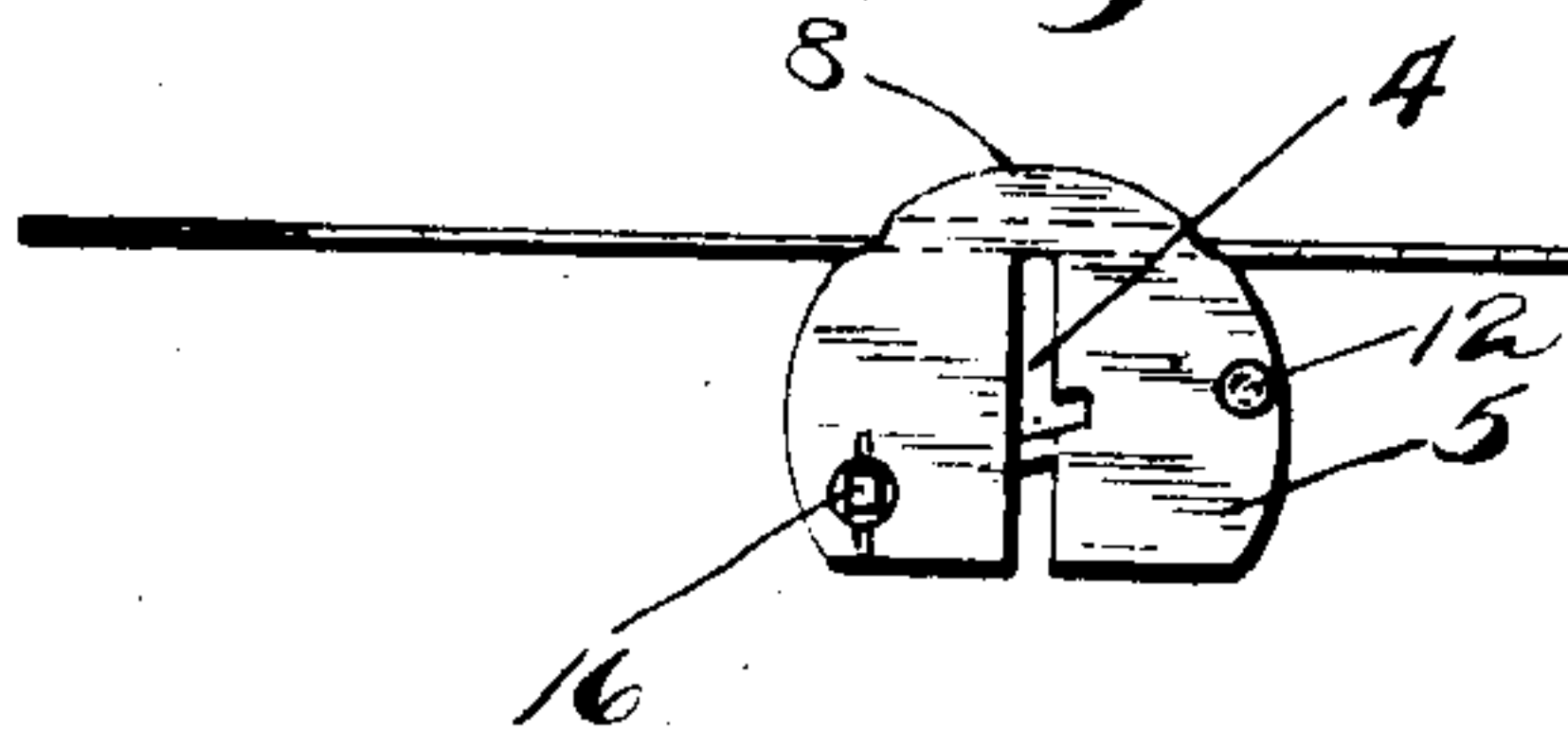


Fig. 4.

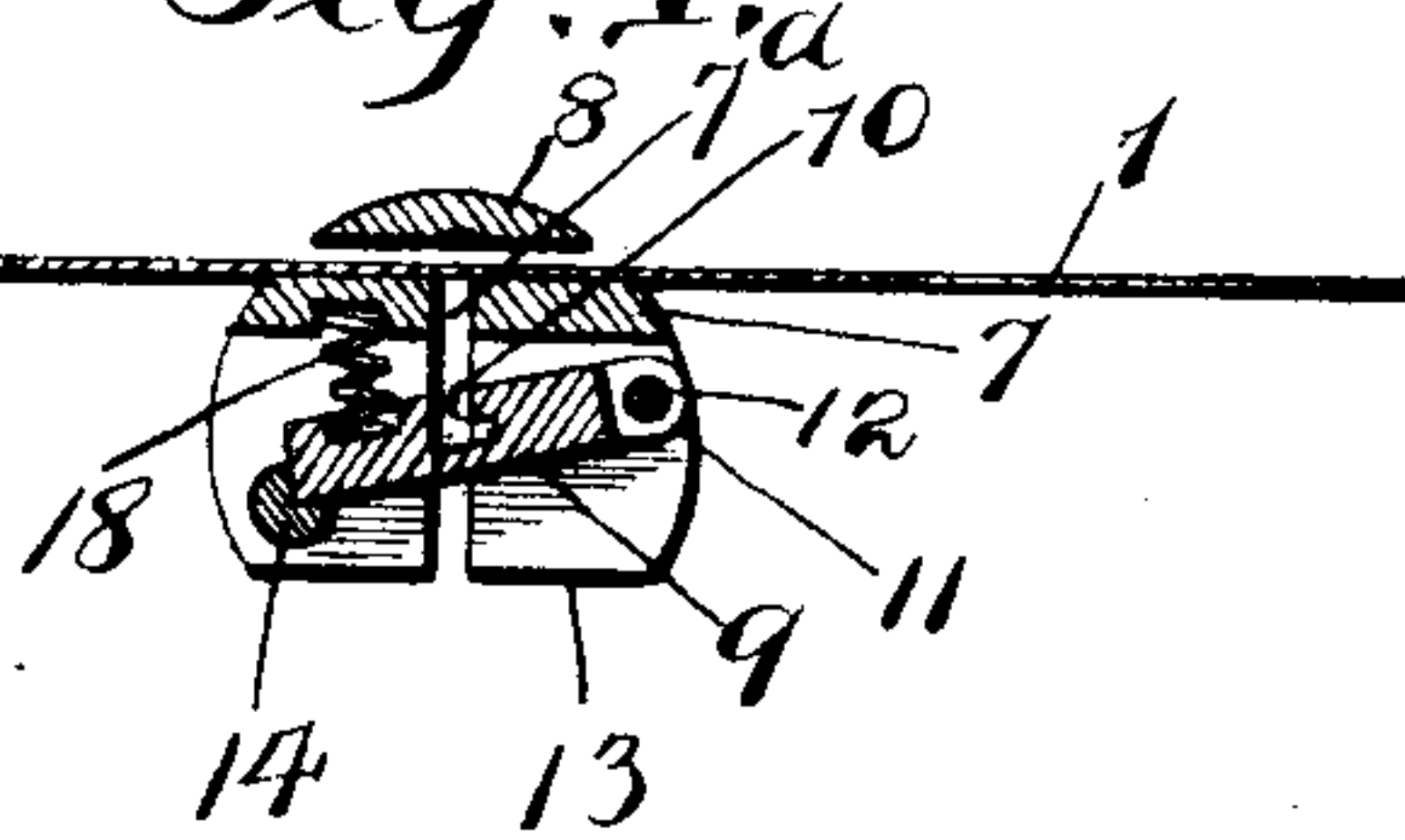


Fig. 5.

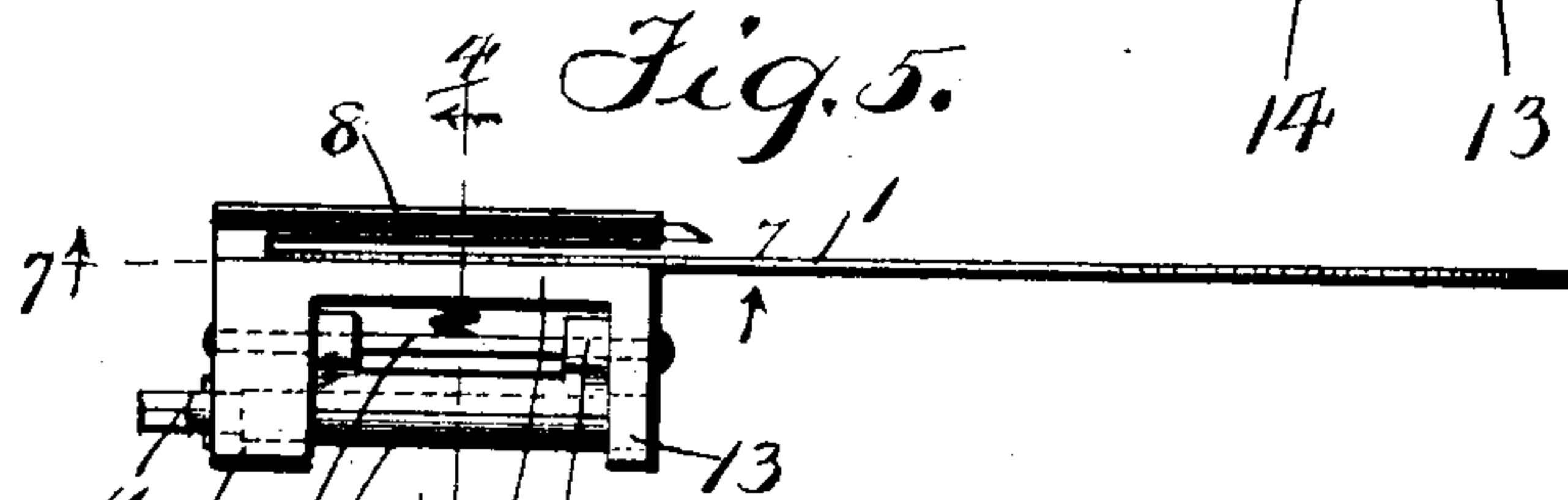


Fig. 7.

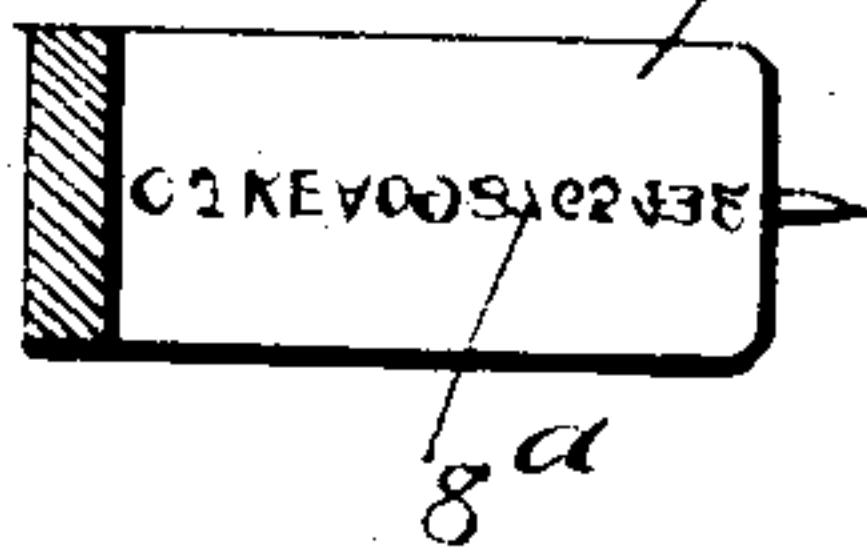
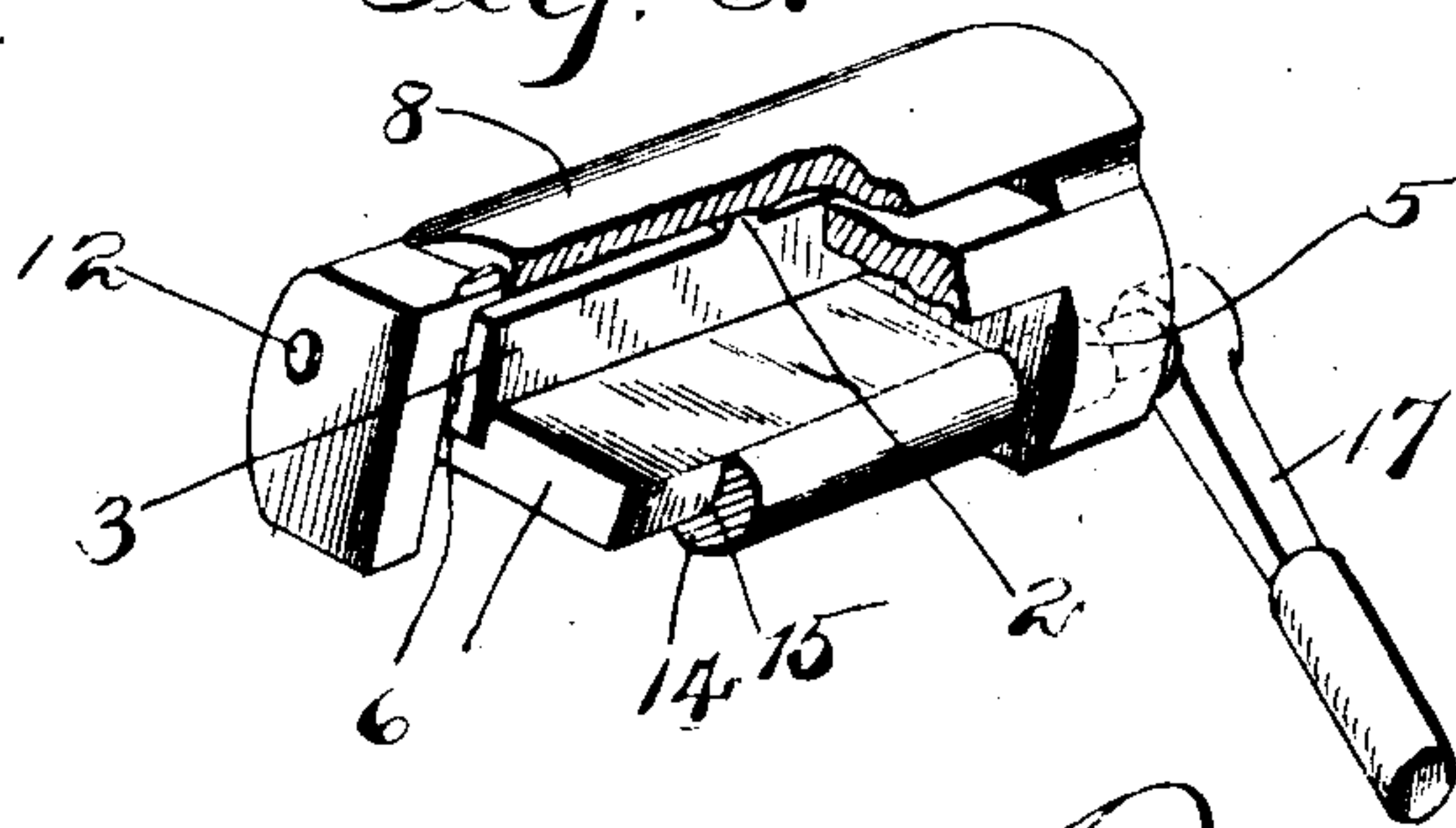


Fig. 6.



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ALOIS BEYER, OF CHICAGO, ILLINOIS.

WATCHMAN'S CLOCK.

SPECIFICATION forming part of Letters Patent No. 711,712, dated October 21, 1902.

Application filed November 9, 1900. Serial No. 35,892. (No model.)

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
5 invented certain new and useful Improvements in Watchmen's Clocks, of which the following is a full, clear, and exact specification.

My invention relates to that class of clocks
10 usually carried by watchmen from post to post or station to station and utilized by them in connection with keys located at the various posts or stations for punching or otherwise indicating in a dial or suitable impression-
15 surface the time each station or post was visited; and my invention has for its primary object to provide an improved construction of clock of this character which shall have means for effecting the punching or marking
20 of the dial or other impression-surface without resulting in the strain of such action being borne by the key while the latter is being either turned or oscillated.

A further object of my invention is to make
25 a part of the key serve as the punch or marker, but to cause its operation by other means more capable of withstanding the strain liable to distort or injure the key.

With these ends in view my invention consists in certain features of novelty in the construction, combination, and arrangement of
30 parts by which the said objects and certain other objects hereinafter appearing are attained, all as fully described with reference to the accompanying drawings and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a plan view of a part of a watchman's clock, the casing being removed, showing my improvements
40 applied thereto. Fig. 2 is a perspective view of the combined key and die or marker. Fig. 2^a is an enlarged detail perspective of the punch or marker. Fig. 3 is an end elevation. Fig. 4 is a transverse section taken on the
45 line 4-4, Fig. 5. Fig. 5 is a side elevation. Fig. 6 is a perspective view, on an enlarged scale, with a portion broken away and the dial omitted; and Fig. 7 is a section on line 7-7, Fig. 5.

50 In illustrating my invention in the accompanying drawings I have omitted all of the clock mechanism and only shown sufficient

parts of the prior apparatus to enable an understanding of my improvements.

1 represents the dial or impression-surface, 55 which may be of the usual or any suitable form and supported and held in the usual or any suitable manner. This dial is rotated by the clock mechanism (not shown) over a punch, die, or other marker, which is actuated to produce an impression on the dial, and thus indicate the time when the watchman visited the post or station, having a key for effecting the operation of such die or marker. In the example of my invention shown in the
60 drawings, 2 is the punch, die, or marker, and it is formed directly on the edge of the key 3, the construction of which in other respects will of course be dependent upon the fancy of the particular manufacturer, but in
70 any event must be such that the die or marker cannot be actuated unless the key be properly and fully inserted.

4 represents the keyhole, which is formed in an end plate 5 and which is complementary in shape to the cross-area of the key, in the form shown such cross-area being substantially L-shaped and composed of the body portion of the key and a short side flange 6, formed along the lower edge thereof. The
80 plate 5 is formed on or formed integrally with a table 7, between which and a female die 8 passes the edge of the dial 1, and which table 7 is provided with an aperture of sufficient size and proper dimension to permit the die
85 or marker 2 to rise through the table and make an impression or puncture in the die 1 after the key has been inserted and forced upwardly toward the dial. Just below the table 7 is arranged a receiver 9 for the key, 90 and this receiver has a passage 10 complementary in shape to the cross-section of the lower edge of the key and is arranged opposite the keyhole 4, so that the key may be inserted through the keyhole and into the receiver 9, with its upper edge resting in the slot or aperture 7^a in the table 7. The receiver 9 is movable and provided with means for forcing it toward the dial, and consequently lifting the key and pressing the
100 marker or punch 2 against the dial, which in turn presses against the female die 8. A convenient way of movably mounting this receiver 9 consists in providing its ends with

perforated ears 11, which are pivoted on a rod 12, secured in the end plate 5 and an opposite end plate 13, formed on or secured to the table 7. As a means of actuating the receiver 9 to make it perform its described function I provide a rod or shaft 14, which has its ends journaled in the end plates 5 13 and is provided in one side with a V-shaped groove 15, in which the corner of the receiver 9 rests. The exterior end of the shaft 14 is provided with a key-post or squared end 16 for the application of a wrench or key 17, whereby the shaft 14, which when formed in the described manner constitutes an eccentric, may be caused to force the receiver 9 upwardly toward the dial, and consequently force the die or marker 2 against the die and produce the impression, and all this without subjecting the key 3 to any strain while being twisted or oscillated, and, in fact, subjecting it to no strain excepting that which is necessary to transmit the pressure of the receiver to the dial. The receiver may be returned automatically to its former position and held in engagement with the shaft 14 by a coil or other suitable spring 18. This upward movement of the receiver 9 cannot take place, however, until the key has been entirely inserted to its proper position, because it is obvious that while the flange 6 of the key remains in the side notch of the keyhole 4 the key cannot rise, and as a consequence the dial cannot be punched at any point excepting that for which the key was intended. Hence it is obvious that by placing the dies or markers 2 at different points throughout the lengths of the various keys the punch or mark made by each key, although similar in form to every other punch, will have a distinctive location on the face of the dial. As a consequence, therefore, all of the keys may be the same in cross-section, differing from each other only in the location of the punch 2 with reference to the length of the key. If desired, the female die 8 may have separate cavities corresponding to the location of the various dies or markers 2 with reference to the length of the key, there being one key for each station or post and a corresponding number of the female dies or cavities 8^a, and the female dies 8^a may be type-matrices, as shown in Fig. 7, and the punches 2 may be formed with corresponding type, as shown in Fig. 2^a, so that by providing each post or station with a separate letter or number the punches or marks made on the dial may be readily distinguished from each other.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

60 1. In a device for the purpose described the combination of an impression-surface, a key having a marker thereon, a pivoted receiver for said key peculiar thereto, a grooved shaft in the groove of which the edge of said receiver rests, and means for rotating said shaft and moving said receiver with the key therein, substantially as set forth.

2. In a device for the purpose described the combination of an impression-surface, a key having a marker thereon, the slotted table 7, the end plate 5 having keyhole 4 complementary in shape to the cross-section of said key, a movable receiver arranged opposite said keyhole and having a groove for receiving said key and means for oscillating said receiver with the key therein, substantially as set forth.

3. In a device for the purpose described an impression-surface, a key having a marker adapted to be impressed against said impression-surface in combination with a guide having a slot for guiding said key during its advancing and receding movements, a movable receiver for holding said key while in said slot, and exterior operating means other than said key for engaging said receiver and forcing said marker against said surface through the medium of the key, substantially as set forth.

4. In a device for the purpose described an impression-surface, a key having a marker adapted to be impressed against said impression-surface, in combination with a guide for holding and guiding said key during its advancing and receding movements, a receiver, movable independently of said guide, for holding said key while in said guide, and exterior operating means other than said key for engaging said receiver and forcing said key along said guide and thereby bringing said marker into contact with the impression-surface, substantially as set forth.

5. In a device for the purpose described, the combination of a dial, a key-receiver arranged at one side thereof and having a key-receiving passage extending substantially parallel with the plane of the dial, a key having a marker on the side thereof adapted to fit in said receiver, means independent of the key for moving the receiver in a direction transverse to the key and toward the dial and adapted to engage the receiver directly, independently of the key, and means on the opposite side of the dial for sustaining the latter while the marker is impressed thereagainst, substantially as set forth.

6. In a device for the purpose described, the combination of a key having a marker on the side thereof, a dial, a movable key-receiver arranged at one side of said dial and having an end opening for the insertion of the key and a longitudinal slot along its side adjacent to said dial for the protrusion of the said marker from the receiver, a guide for the key arranged between the dial and receiver and fixed with relation to the receiver, and means other than said key for moving the receiver toward the dial, substantially as set forth.

7. In a device for the purpose described the combination of a key having a marker on the side thereof, a key-receiver having a longitudinal slot complementary in shape to the cross-section of the key, means other than the

key for moving said receiver transversely of said slot, a slotted key-guide arranged at the end of said receiver with its slot registering with the slot in the receiver and fixed with relation to the receiver and means for holding a dial to receive the impression of said marker, substantially as set forth.

8. In a device for the purpose described the combination of a key having a marker on the side thereof, a pair of end plates, one of which has a guide-slot for said key, a key-receiver having a key-receiving slot, pivoted between said end plates, with its slot registering with the first said slot, means other than the key for moving said receiver and means for holding a dial in position to receive the impression of said marker when the receiver is thus moved, substantially as set forth.

9. In a device for the purpose described the combination of a block formed with two end plates, 5 13, aligned slots in said plates 5 13, a saw cut extending longitudinally of said block at right angles to the said slots and into which the latter expand, a key-receiver located between and pivoted to said end plates 5 13 and having a key-receiving slot arranged in line with the said slots, a key having a marker on the side thereof, adapted to be inserted through one of said end plates into said receiver, and means for oscillating said receiver lengthwise of the said slots, substantially as set forth.

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