C. H. REEVE & T. A. OSWALD.

HAND PERFORATING PUNCH.

APPLICATION FILED NOV. 1, 1909.

967,555. Patented Aug. 16, 1910.

Fig. 1.

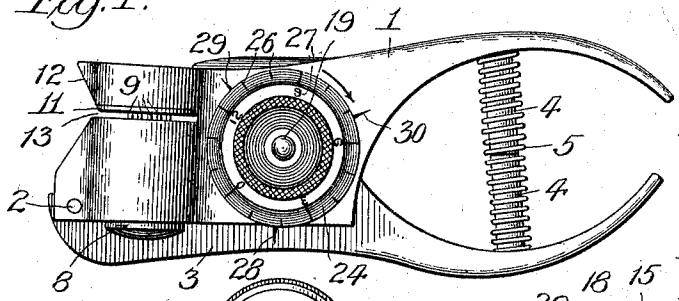


Fig. 2.

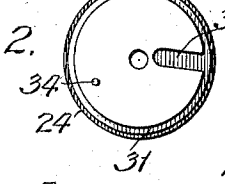


Fig. 3.

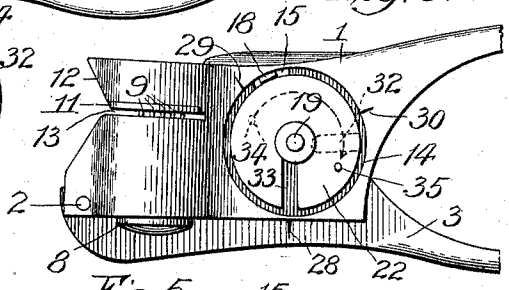


Fig. 4.

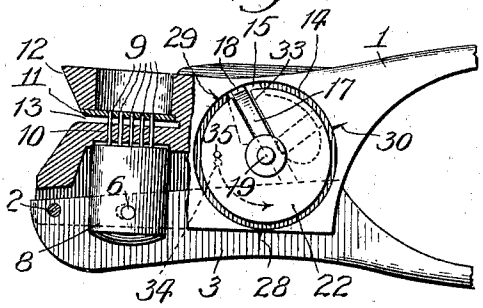


Fig. 5.

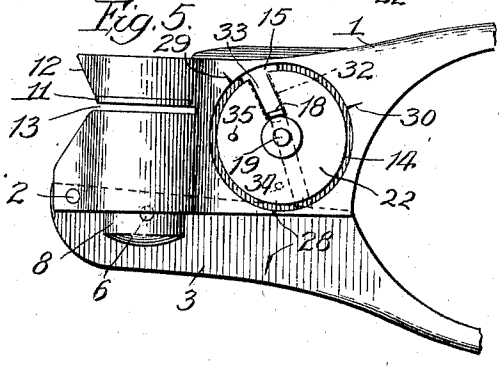


Fig. 6.

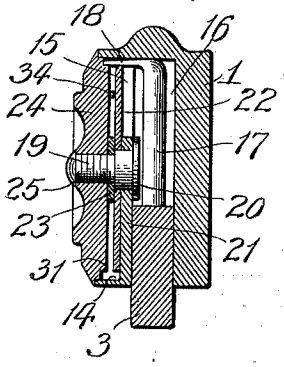
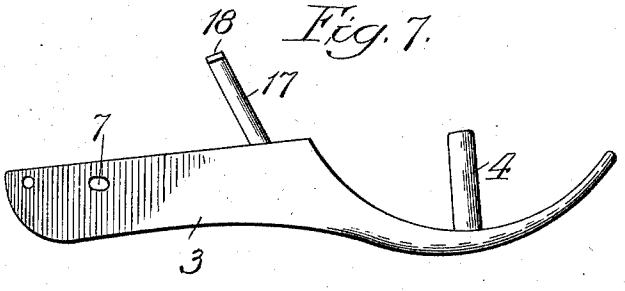


Fig. 7.



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UNITED STATES PATENT OFFICE.

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HAND PERFORATING-PUNCH.

967,555. Specification of Letters Patent. Patented Aug. 16, 1910.

Application filed November 1, 1909. Serial No. 525,749.

To all whom it may concern:

Be it known that we, CARLTON H. REEVE and THOMAS A. OSWALD, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hand Perforating-Punches, of which the following is a description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters of reference in the different figures indicate like parts.

The object of our invention is to so construct a hand-punch for use by conductors, bank officials or others desiring to employ it for private distinctive marks, that it may be readily locked by the lawful holder against unauthorized use by means of a suitable permutation lock, the combination of which is known only to the proper possessor, all of which is hereinafter more particularly described and definitely pointed out in the claims.

In the drawings—Figure 1 is a side elevation of a hand-punch embodying the features of our invention, Fig. 2 is an inner face view of the dial, Fig. 3 is a side view showing said punch as it would appear with the dial removed and the remaining parts in locked positions, said view being intended to indicate the manner of manipulating the tumblers, Fig. 4 is a like view showing the first tumbler in a position to permit the notch therein to register with the locking dog upon one of the handle levers, Fig. 5 is a like view showing the levers unlocked, Fig. 6 is a transverse vertical sectional view through the axis of the tumblers, and Fig. 7 is a detached view of the handle lever to which the locking dog is attached.

Referring to the drawings, 1 represents one of the handle levers of a well-known form of hand-punch, to which is jointedly connected at 2 a counterpart hand-lever 3. The part 1 is made wider than its fellow with the usual longitudinal recess therein to receive the body of the part 3, as shown. Formed upon the handle portions of the parts 1 and 3, respectively, are studs 4, 4, which serve to retain the usual coiled spring 5 for separating said handles. Pivotally connected to the part 3 by means of a pin 6, Figs. 4 and 5, projected through an elongated opening 7, Fig. 7, is a punch-holding cylinder 8, in which is rigidly secured a series of needle-punches 9, which are projected through guide-holes in a jaw portion 10, better shown in Fig. 4, which forms a guide for said needles. The latter are adjusted to enter openings in the usual counterpart die 11 secured to a jaw 12 upon the opposite side of an opening 13, adapted to receive the sheet to be perforated. The needles may be arranged in any well-known arbitrary way for the purpose of perforating a distinctive mark, such, for example, as a monogram, the initials of a person, or otherwise.

So much of the device as has been above described is old and well-known, and it is with that that we would combine means for locking it against unauthorized use.

Formed in one wall of that portion of the part 1 which incloses the part 3, is a somewhat shallow cylindrical cavity 14, a part of which is cut entirely through said wall of the lever, as indicated at 15, Figs. 3, 4 and 6 and is in communication with a chamber 16, Fig. 6. Rigidly attached to the inner face of the part 3 is a dog having a body 17 provided with a laterally bent portion 18 upon its end. The part 17 is of such a length that when the handles are brought together it will extend upwardly into the cavity 16 to the full limit, with the part 18, resting against the inner face of the cylindrical cavity. A screw 19 has its head 20, Fig. 6, within the chamber 16, and is projected outwardly through a central bore in the part 21 forming a web at the bottom of the cavity 14. A disk tumbler 22 is loosely mounted upon a hub or enlarged portion of said screw, adjacent to which is placed a washer 23. A dial 24 is then supported upon said screw, which latter is upset or headed, as shown at 25, Fig. 6, to hold said dial permanently in place while free to be rotated. The dial is provided with the usual peripheral marks 26 and number 27, as shown in Fig. 1, and one or more arbitrary marks 28, 29, 30 are placed upon the part 1, one or more of which may be used as a means for operating the combination. Upon the inner face of the dial is formed an offset 31, Figs. 2 and 6, of the same diameter as that of the disk 22. A notch or groove 32, indicated in dotted lines in Figs. 3 and 5, and shown in full lines in Fig. 2, is extended from the outer edge of said shoulder to near the center of the dial for the reception of the end of the dog 18 when

in registration therewith. This portion, therefore, of the inner face of the dial forms a tumbler corresponding in function to the tumbler 22, which latter is provided with a like notch 33 extending inwardly from its periphery, which notches are adapted to register when brought opposite to each other. An inwardly projecting pin 34 upon the dial tumbler is adapted to engage an outwardly projecting pin 35 upon the tumbler 22, said pins being placed equi-distant from the center.

The operation of said device is as follows: When the punch is closed, as indicated in Fig. 1, and either of the tumblers turned so that the notch therein is out of registration with the dog 18, the latter will ride upon the periphery of said tumbler and serve as an effectual lock to prevent the opening of the punch, but when both notches are in registration with the dog, the spring 5 will act to separate the handles and open the punch. As in the usual permutation lock, the pins on the tumblers bear a predetermined relation to the numbers upon the dial. Assuming the combination in the example shown to be 0—12 and the indicator mark to be 28, the dial is first turned to the right one or more revolutions to "establish a relation" between the tumblers when it is arrested with zero opposite to said mark, thereby causing the notch 33 of the tumbler 22 to be in registration with the dog 18, as shown in Fig. 4. The dial is then reversed and moved toward the left until 12 is opposite the mark when the notch in the dial tumbler will be in registration with the dog. As soon as this occurs the spring acts to open the punch when the dog, entering the notches of the tumblers, assumes the position indicated in Fig. 5. After using the punch the handles are brought together and the dial shifted to a locking position.

While we have shown said device arranged to lock the handles closed as a preferable construction, we do not wish to be confined thereto, as it is obvious that a mere reversal of the position of the dog might serve equally well to lock them open. In the example illustrated, but two tumblers are shown. It is obvious, however, that any desired number may be employed without departing from the invention.

Having thus described our invention, we claim:—

1. The combination with a hand-punch having coacting handles, of a permutation lock comprising a dial and rotary tumblers mounted upon one of said handles, and a dog upon the other arranged to engage said tumblers to lock the handles in a predetermined position, said tumblers having peripheral notches therein for the reception of said dog when it and said notches are in registration.

2. The combination with a hand-punch having opposing handles for actuating the same, of a permutation lock mounted upon said handles, said lock comprising a plurality of revoluble peripherally notched tumblers, a dial for manipulating the same, and means upon the opposing handle for engaging said tumblers to lock said handles against movement and for entering said notches when in registration to unlock said handles.

3. The combination with a hand-punch having opposing handles for actuating the same, of rotary tumblers mounted upon one of said handles in planes parallel to the plane of movement of said handles, each of said tumblers having a notch extending inwardly from the periphery thereof, a dial for manipulating said tumblers, and a dog upon the opposite handle from that on which said tumblers are mounted, said dog having an arm arranged to extend across the periphery of said tumblers to lock said handles when closed and to enter said notches when in registration therewith to permit the handles to open.

4. The combination with the opposing handles of a punch, of a plurality of permutation tumblers upon one handle and a locking dog upon the other for engagement with said tumblers to lock the handles against movement when arbitrary points upon said tumblers are out of registration with a predetermined stationary point.

5. The combination with a hand-punch having opposing handles and yielding means for separating said handles, of notched permutation tumblers upon one handle and a locking dog upon the other in position to engage the periphery of said tumblers to lock the handles in a closed position when the tumbler notches are out of registration.

In testimony whereof, we have signed this specification in the presence of two subscribing witnesses, this 30th day of October 1909.

CARLTON H. REEVE.
THOMAS A. OSWALD.

Witnesses:
D. H. FLETCHER,
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