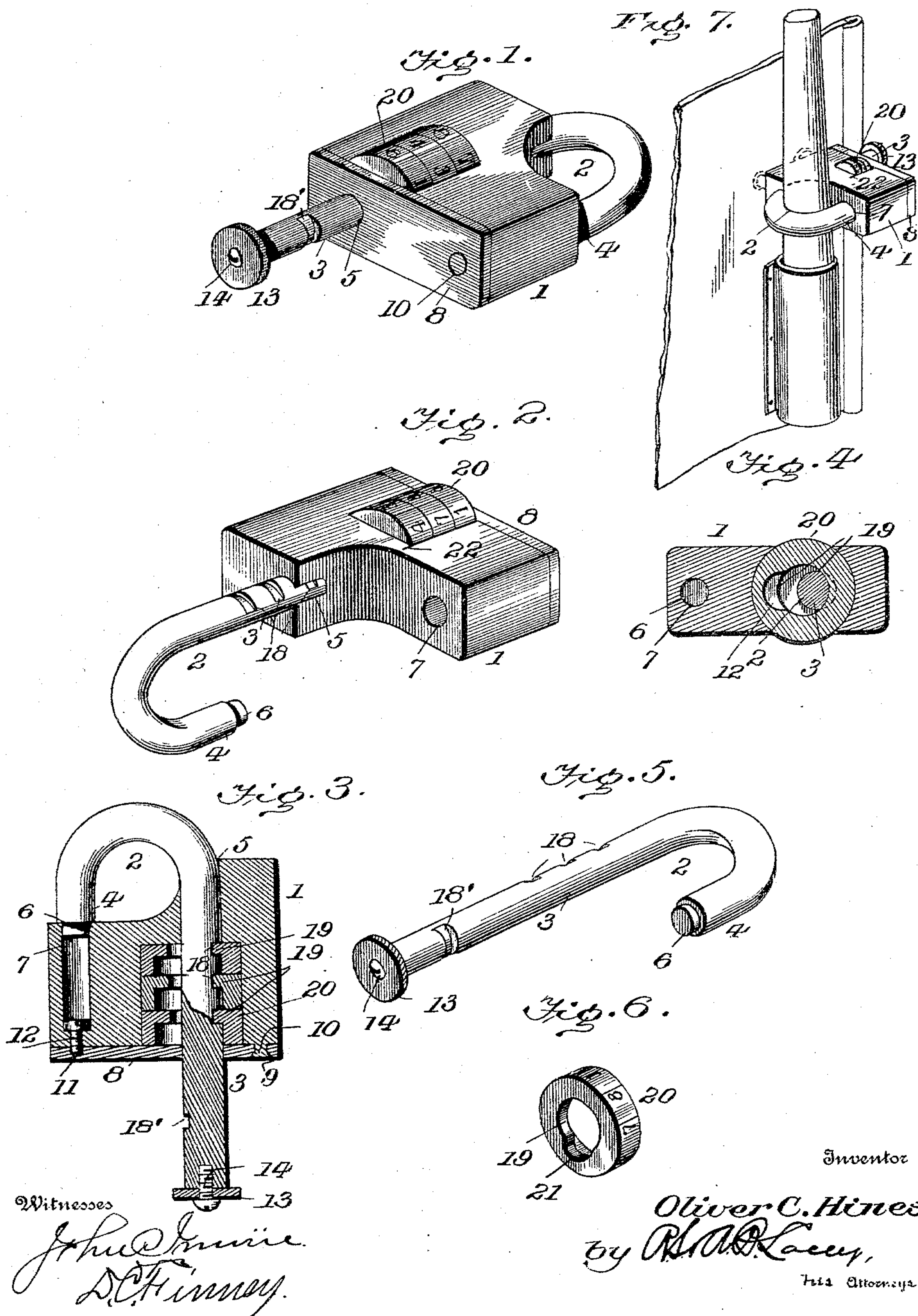


(No Model.)

O. C. HINES.  
PERMUTATION PADLOCK.

No. 597,980.

Patented Jan. 25, 1898.





# UNITED STATES PATENT OFFICE.

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## PERMUTATION-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 597,980, dated January 25, 1898.

Application filed April 6, 1897. Serial No. 630,968. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER C. HINES, a citizen of the United States, residing at Jewett, in the county of Harrison and State of Ohio, have invented certain new and useful Improvements in Combination-Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to permutation-locks; and the object is to provide a simple, cheap, and durable as well as effective and reliable lock of this class.

To these ends the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference characters indicate the same parts of the invention.

Figure 1 is a perspective view of my improved combination-padlock. Fig. 2 is a similar view showing the lock open. Fig. 3 is a vertical longitudinal section of the lock. Fig. 4 is a horizontal section of the lock. Fig. 5 is a detailed view of the hasp detached from the lock. Fig. 6 is a similar view of one of the rotary tumblers. Fig. 7 is a reduced perspective view of the lock as it appears fixed to a vehicle-dash.

1 represents the lock-case, and it may be of any suitable size and shape to conform to the use for which it is intended, and 2 represents the U-shaped hasp or shackle, having a longer leg 3 and a shorter leg 4. The longer leg 3 extends through a circular orifice 5 in the lock-case, and the end of the shorter leg 4 terminates in a tenon 6, which engages the upper end of a circular orifice 7, arranged parallel with the orifice 5, and prevents lateral displacement after the hasp is closed.

8 represents the lock-plate, and one end is provided with an orifice 9, through which the stud-rivet 10 passes and which forms a pivot for the plate to swing around on. A threaded recess 11 is also formed in the opposite end of the inner face of the plate to receive the end of the screw 12, which is inserted through the orifice 7, and from this construction it

will be seen that it is impossible to remove the plate when the hasp is locked.

13 represents a milled-head washer which is detachably secured to the projecting end of the leg 3 by a binding-screw 14.

A series of transverse parallel tangential recesses 18, constituting the fence, are formed in the longer arm of the hasp 2, and these recesses are in the same plane with the annular internal collars 19, formed integral with the rotary tumblers 20, and when these collars 19 project into the path of the fence the hasp is rigidly secured in the lock. These collars are, however, provided with the usual slot 21, and when these slots are aligned with the bolt-arm the fence is released and the arm permitted to slide freely through the case and release the shorter arm 4 from the orifice 7.

The periphery of each of the tumblers 20 is divided into sections and each section marked with a suitable character, as shown, and 22 represents the unison-point on the case, with which the proper characters must register to bring the slots 21 into alignment with the arm 3 and release the fence.

A single tangential recess 18' is formed near the outer end of the arm 3 and at right angles to the recesses 18, so that after the hasp has been released and turned at a right angle to its former position it may be retained in this position by one of the tumblers engaging this recess 18' for a purpose to be presently explained.

When it is desirable to change the combination, the lock is first opened, the hasp turned aside, the milled-head washer 13 detached, and the hasp removed from the lock-case. The screw 12 is now removed and the plate 8 swung around on its pivot 9. The tumblers 20 are then removed from the lock-case and replaced in a different order to obtain a new combination, and as there are three tumblers shown in the present instance the combination admits of six changes. The addition of one more tumbler would permit of twenty-four changes in the combination. After the proper change is made in the combination the plate 8 is again secured in place by the screw 12, the hasp adjusted, and the milled washer secured in place.



The lock-case may be secured to the dash in any convenient manner, but preferably by forming one or more rivets integral with the lock-case and riveting the same through the dash; but as the particular means of fixing the lock to the dash forms no part of my invention it will be understood that any means consistent with the art may be employed.

While my improved combination-lock is intended to be secured to the dash-iron of a vehicle immediately above the whip-socket, as shown in Fig. 7, to lock the whip in place, it is evident that it is applicable to any use to which a padlock can be applied and will be found particularly valuable as a bicycle attachment to lock the sprocket-chain to a contiguous portion of the frame during the temporary absence of the occupant.

In the case of a whip-lock the hasp may be turned out of the path of the socket and locked in this open position, so as not to interfere with the insertion and removal of the whip, and when the vehicle is to be left standing the hasp may be released from its open position and thrown around, so as to encompass the whip-handle, and locked in this position.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as

clearly fall within the scope of my invention without departing from the spirit thereof. 35

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. A combination-lock, comprising the lock-case 2, provided with the parallel orifices 5 and 7 and the interchangeable tumblers 20, and the pivoted plate 8, having its free end removably secured to the contiguous face of the lock-case, in combination with the hasp 2, formed with the shorter arm 4, terminating in the tongue 6 and the longer arm 3, provided with the detachable milled-head washer 13, substantially as shown and described. 40

2. A combination-lock, comprising the lock-case 1, formed with the parallel orifices 5 and 7, and the rivet-stud 10, in combination with the interchangeable tumblers 20, the plate 8 having the orifice 9 and the threaded recess 11, the screw 12, and the hasp 2, having the arm 4, terminating in the tongue 6, and the arm 3, provided with the detachable milled-head collar 13, substantially as shown and described. 50

In testimony whereof I affix my signature 60 in presence of two witnesses.

OLIVER C. HINES.

Witnesses:

AMANDE McMANUS,  
F. M. BELL.