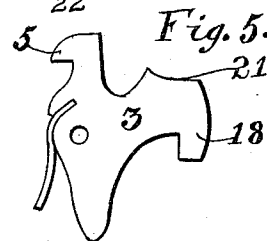
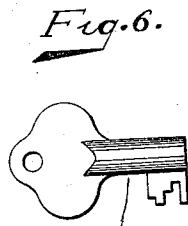
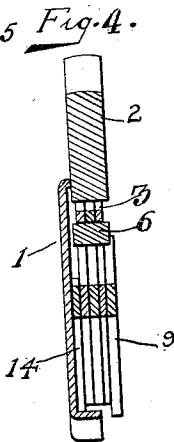
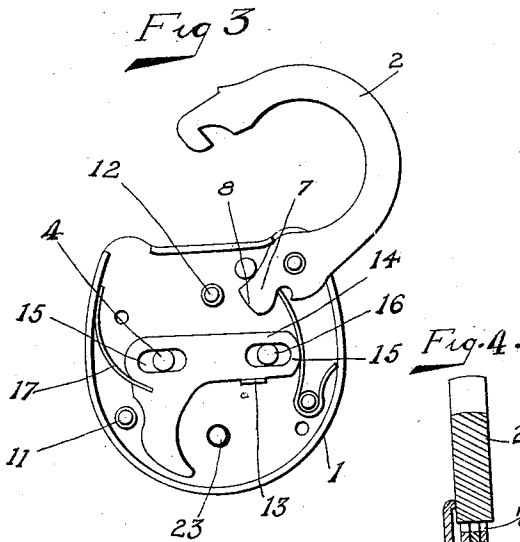
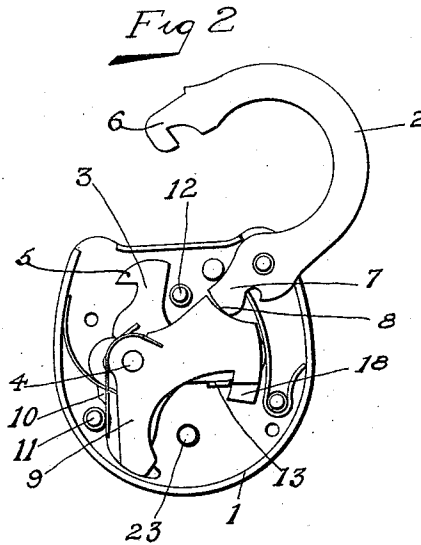
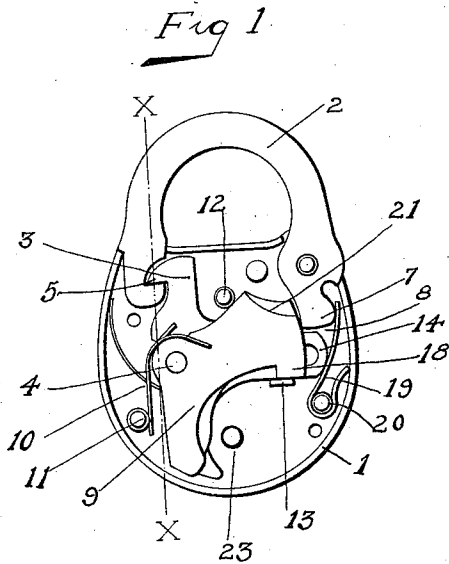


A. A. PAGE.
PADLOCK.

APPLICATION FILED JULY 10, 1911.

Patented Feb. 11, 1913.

1,052,746.



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PADLOCK.

1,052,746.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed July 10, 1911. Serial No. 637,638.

To all whom it may concern:

Be it known that I, ALBERT A. PAGE, of the town of East Haven, county of New Haven, and State of Connecticut, have invented new and useful Improvements in Padlocks, of which the following is a full, clear, and exact description when taken in connection with the accompanying drawings, which form a part thereof.

This invention relates to padlocks, and the primary object of the same is to provide an improved form of tumbler mechanism for padlocks which combines the advantages of maximum security and maximum ease and cheapness of manufacture.

To these and other ends, the invention consists in the novel features illustrated by way of example in the accompanying drawing in which—

Figure 1 is a plan view of the padlock with shackle closed and cap plate removed; Fig. 2, a similar view with shackle open; Fig. 3, a view similar to Fig. 3, with all the tumblers except the stop tumbler removed; Fig. 4, a section on line $x-x$, Fig. 1; Fig. 5, a detail of one of the tumblers; and Fig. 6, a view of the key.

In all figures, similar letters of reference represent like parts.

Referring to the drawings, 1 is the casing of the lock and 2 the shackle. A series of shackle engaging tumblers 3 are pivoted on a pin 4, and each of such tumblers is provided with a hook catch 5 adapted to engage the hook 6 of the shackle. The shackle is provided with a tail piece 7 having a rounded end face 8. When the shackle is closed, the tail piece thereof lies behind the rear faces of the tumblers. A tumbler 9 of ordinary form, unprovided with a shackle engaging hook is pivoted on the pin 4. The tumblers 3 are pressed toward the shackle hook by individual springs 10, bearing against a pin 11, and they are limited in such spring pressed movement by a pin 12.

The tumblers 3 and 9 are held locked against movement away from the shackle hook by means of a stop lug 13 carried by a stop tumbler slide 14, which is provided with slots 15 engaging the pin 4 and a guide pin 16 respectively. A spring 17 connected at one end to the stop tumbler and having its other end bearing against the rim of the padlock serves to press said tumbler slide into position to stop the tumblers 3 and 9,

from pivotal movement. This stop action is effected by the lug 13 which is alined with the shoulders 18 of the pivoted tumblers.

A spring 19 mounted on a pin 20 has one end bearing on the tail piece of the shackle and serves to throw said shackle outwardly when the same is released from the tumblers.

The pivoted tumblers have curved shoulders 21 against which the end face 8 of the tail piece of the shackle bears when the shackle is open, thus serving to hold the tumblers 3 out of line with the shackle hook. A key 22 is employed for operating the tumblers and it is adapted to engage a pin 23.

To unlock the shackle the bit of the key is inserted through the key-hole and the key turned to the left, whereupon, the foot of the stop tumbler slide 14 will be first engaged by the key and the said slide moved toward the left carrying its stop lug out of alinement with the projecting ends of the tumblers, leaving the latter free to be turned, whereupon in the continued movement of the key the tumblers 3 will be rocked on their pivot carrying the hooks thereof out of engagement with the shackle hook. Thereupon the spring 19 will throw the shackle outwardly to open position, and in this position of the parts the tumblers 3 will be held retracted and out of line with the shackle by the pressure of the rounded end of the tail piece or heel of the shackle against the curved faces of the tumblers. Upon closing the shackle so as to lock the padlock, the hook of the shackle will be free to enter its socket without pressure against the tumblers, and thus any obstruction of the shackle due to any one of the tumblers being jammed or displaced is prevented. As the shackle hook is moved into registry with the hooks of the cooperating tumblers, the tail piece of the shackle will ride against the curved end faces of the tumblers, and as the tail piece slips off the ends of the tumblers the latter will be thrown by their springs toward the shackle end and their hooks will engage and lock the hook of the shackle, while at the same time the tail piece or heel of the shackle will be locked by the rear ends of the tumblers.

It will be noted that the arms 18 which depend from the tumblers at one side of the keyhole lie in the planes of the respective tumblers, while the lug 13 of the laterally

sliding stop member 14 is bent up from the edge of said stop member and extends at an angle to the plane of the latter.

Having thus described my invention,
5 what I claim is:—

1. In a padlock, the combination of a pivoted shackle, a pivoted tumbler coöperating therewith and provided with a depending stop arm, and a laterally movable stop
10 slide beneath said tumbler provided at its edge with a lug projecting out of the plane of said slide and movable laterally into and out of engagement with said tumbler arm; substantially as described.

15 2. In a padlock, the combination of a pivoted shackle, a tumbler coöperating therewith, and a sliding stop member, one of said two last named members having an arm extending from the edge thereof in the
20 plane of said member, and the other member having a lug at the edge thereof extending at an angle to the plane of said member

and coöperating with said arm; substantially as described.

3. In a padlock, the combination of a case 25 having a keyhole, a shackle pivoted to the case, a tumbler pivoted in the case and having a depending stop arm at one side of the keyhole lying in the plane of said tumbler, and a laterally slidable stop member in the 30 case having at one side of the keyhole a lug extending out of the plane of said member and movable into and out of engagement with said stop arm, and provided with an arm at the opposite side of the keyhole to 35 coöperate with the key; substantially as described.

In witness whereof, I have hereunto set my hand on the 6th day of July, 1911.

ALBERT A. PAGE.

Witnesses:

ELIZABETH M. HORAN,
HOWARD J. FLETCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."