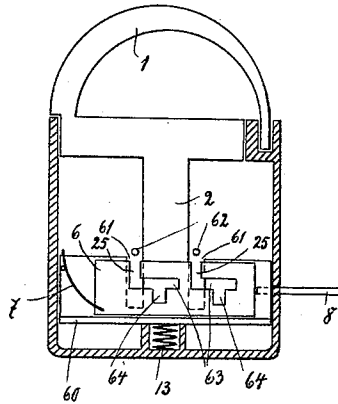


F. W. MEWS.
PADLOCK.
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1,008,979.

Patented Nov. 14, 1911.



Witnesses
J. Robinson
H. Goldstein

Inventor
Friedrich W. Mews
by J. Singer
Att'y

UNITED STATES PATENT OFFICE.

FRIEDRICH WILHELM MEWS, OF MOSCOW, RUSSIA.

PADLOCK.

1,008,979.

Specification of Letters Patent. Patented Nov. 14, 1911.

Original application filed June 27, 1906, Serial No. 323,749. Divided and this application filed January 19, 1910. Serial No. 538,855.

To all whom it may concern:

Be it known that I, FRIEDRICH WILHELM MEWS, of the town of Moscow, in the Russian Empire, engineer, having invented a certain new and useful Improvement in Padlocks, do hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to improvements in tumblers for locks of every kind *i. e.* padlocks, box-locks and door-locks and has for its object to obtain a greater security against unauthorized opening of the same. This application is a divisional from my application filed June 27th, 1906, Serial Number 323,749. For this purpose the slot or incision of the tumbler or tumblers locking in one of their positions and chackle- or bolt-shank and being shifted or turned in the lock to allow the admission of one or more fixed detents, stops or the like in said slot, for opening the lock, are cut gradatorily so that the tumblers must be repeatedly displaced to bring the detent in the proper position within the slot. The slot in the tumbler may be open ended or closed round about.

The figure illustrates by way of example, a pad-lock with a tumbler having open ended slots cut gradatorily according to the invention.

The shank 2 of the shackle 1 projects at the bottom to both sides and its lower edge is bent to form a flange 60 on which the tumblers 6 rest. The detent-pins 62 introduced after the insertion of the movable parts in the case stand over the vertical slots 61 of the bolt or shackle-shank but can only enter into said slots when the lock is opened, as the tumblers 6 pressed by the springs 7 to the right lie with their upper edge against the pins 62 and with their lower edge against the rim 60 of the shank. If the tumbler is pressed in by the push-key 8 until its slots 25 come under the pins 62, the spring 13 arranged under the rim 60 presses the shackle-shank 2 with the tumbler upward, whereby the pins 62 enter into the slots 61 and 25. But as the slots 25 are not so long that the shackle can come up out of the lock-case, the lock is not yet opened. For the complete opening of the same the tumbler must be displaced once more to the left. This movement is allowed by the horizontal slots 63 connecting with the slots 25 from which

slots 63 other vertical slots 64 extend, into which latter the detent-pins 62 enter after the correct second setting of the tumbler. The lock is then completely open. The horizontal slots 63 are continued farther over the vertical slots 64 so that, especially if several tumblers are present the ascertainment of the correct position of the tumbler for the second stage of opening is made almost impossible, as the pins 62 can enter in the extension of the horizontal parts of the slots over the vertical slots 64. Of course, every slot 25 can have a suitable number of steps instead of one step 25, 63, 64, in which case the opening must take place in just as many steps or stages as there are vertical slots present.

Claims:

1. In a lock, the combination with a casing having a detent-pin, of a shackle bolt slidably mounted therein having lateral extensions and an upturned or flanged portion transversely of the bolt, said lateral extensions having a detent-way in alinement with the detent-pin, a tumbler having a stepped slot formed therein, the tumbler being disposed between the detent-pin and said flanged portion to hold the shackle bolt in a locked position, and means actuating said tumbler to successively aline the stepped slot with the detent-pin to unlock the shackle bolt.

2. In a lock, the combination with a casing having detent-pins, of a shackle bolt slidably mounted therein having lateral extensions with an upturned or flanged portion transversely of the bolt, said lateral extension having detent-ways in alinement with the detent-pins, a tumbler having stepped slots formed therein, the tumbler being disposed between the detent-pins and said flanged portion to hold the shackle bolt in a locked position, and means actuating said tumbler to successively aline the stepped slots with the detent-pins to unlock the shackle bolt.

3. In a lock, the combination with a casing having a detent-pin and a shackle bolt having a transverse upturned flange, of a tumbler having a Z-shaped slot formed therein, the tumbler being disposed between the detent-pin and the upturned flange to normally hold the shackle bolt in a locked position, and means actuating said tumbler

to successively aline the steps of the Z-shaped slot with the detent-pin to unlock the shackle bolt.

4. In a lock, the combination with a casing having detent-pins and a shackle bolt having a transverse upturned flange, of a tumbler having a plurality of Z-shaped slots formed therein, the tumbler being disposed between the detent-pins and the upturned flange to normally hold the shackle

bolt in a locked position, by means actuating said tumbler to successively aline the steps of the Z-shaped slots with the detent-pins to unlock the shackle bolt.

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

FRIEDRICH WILHELM MEWS.

Witnesses:

GUSTAV EUGENE HARLING,
J. H. SNODGRASS.

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