

K. PRAŽMO.
LATCH LOCK.

APPLICATION FILED JAN. 18, 1916.

1,180,943.

Patented Apr. 25, 1916.

Fig-1-

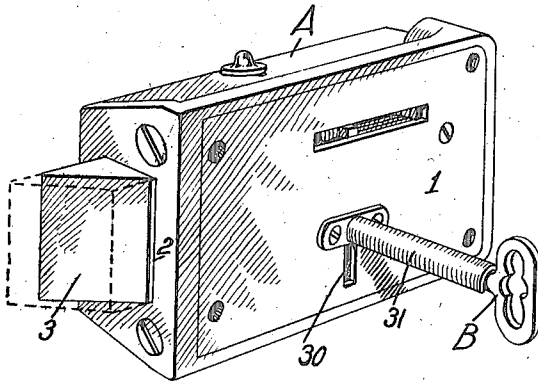


Fig-2-

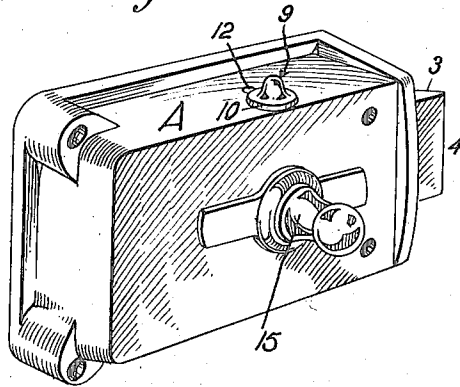


Fig-3-

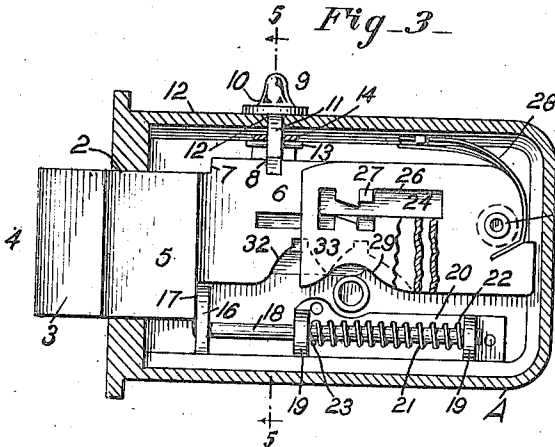


Fig-4-

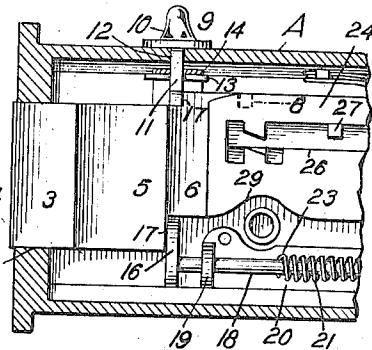
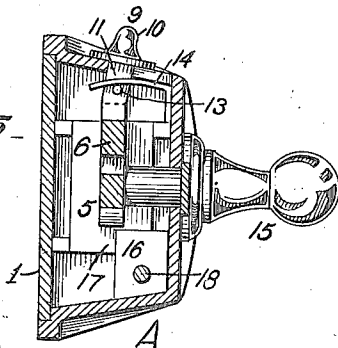


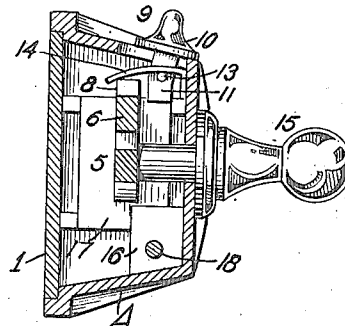
Fig-6-

Fig-5-



WITNESSES

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UNITED STATES PATENT OFFICE.

KAŻIMIERZ PRAŻMO, OF NEW YORK, N. Y.

LATCH-LOCK.

1,180,943.

Specification of Letters Patent.

Patented Apr. 25, 1916.

Application filed January 18, 1916. Serial No. 72,725.

To all whom it may concern:

Be it known that I, KAŻIMIERZ PRAŻMO, a subject of Russia, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Latch-Lock, of which the following is a full, clear, and exact description.

This invention relates to latch locks and relates particularly to locks of that type in which the bolt is capable of being thrown from the normal latch position to locking position, or vice versa, by a key.

The invention has for its general objects to improve and simplify the construction and operation of locks of the character referred to so as to be reliable and efficient in use, comparatively simple and inexpensive to manufacture, and so designed as to afford the maximum safety.

A further object of the invention is the provision of a novel form of stop catch for the bolt, whereby the same can be locked against movement in either normal or unlatched position.

A further object of the invention is the provision of a simple, novel and effective spring device for yieldingly holding the bolt in normal condition.

With such objects in view, and others which will appear as the description proceeds, the invention comprises various novel features of construction and arrangement of parts which will be set forth with particularity in the following description and claims appended hereto.

In the accompanying drawing which illustrates one embodiment of the invention and wherein similar characters of reference indicate corresponding parts in all the views, Figure 1 is a perspective view of the lock before the same is applied to a door; Fig. 2 is a perspective view seen from the face side; Figs. 3 and 4 are longitudinal sections showing the bolt locked in two different positions; Fig. 5 is a transverse section on the line 5—5, Fig. 3, showing the bolt locked by the stop catch; and Fig. 6 is a similar view showing the stop catch in unlocking position.

Referring to the drawing, A designates the casing of the lock which has a removable plate 1 fastened to the open side, which is presented to the door; and movable out of an opening 2 in one of the end walls is the beveled end 3 of a sliding latch bolt 4

which is suitably guided in the casing A. This bolt has a rectangular portion 5 and a shank 6, and at one edge are slots or shoulders 7 and 8 in the shank of the bolt for engagement by the stop catch 9. This catch is in the form of a button 10 disposed outside the casing and formed with a tongue or shank 11 which extends into the casing through a slot 12, and on this shank 11 is a pin 13 which engages behind a spring 14 fastened within the casing and slotted to straddle the shank 11. This shank 11 is adapted to engage either one of the shoulders 7 or 8 to lock the bolt 4 against movement from the positions shown in Figs. 3 and 4. The spring 14 is a friction device for holding the stop catch 9 in either of its extreme positions, as shown in Figs. 5 and 6, the stop catch in the former figure serving to lock the bolt, while it is released from the bolt in Fig. 6, so that the bolt can be operated either by a key or a knob 15 fastened to the bolt and extending outwardly through the front of the lock casing. The button 10 on the stop catch has a surface of considerable area in frictional contact with the outer face of the casing, and consequently the stop catch will remain in either position without danger of accidentally shifting.

The latch bolt 4 is urged outwardly by a spring device which consists of a follower 16 which engages behind the shoulder 17 formed by one end of the body 5, and this follower is fastened to a rod 18 which slides in bearing lugs 19 on a supporting frame 20 fastened in the casing, and surrounding the rod 18 is a spring 21 which has an end 22 bearing against one of the lugs 19, and an end 23 connected with the rod 18. Thus, when the latch bolt is moved inwardly the spring 20 is compressed and serves to return the latch bolt to normal position. This spring device for the latch bolt is disposed at the side of the casing opposite from the stop catch 9.

Cooperating with the latch bolt 4 are tumblers in the form of plates 24 which swing on a pivot post 25, and these plates are formed with suitably shaped slots 26 in which extends the baffle post 27 of the latch bolt 4. Each tumbler is backed by a spring 28 for holding the edges 29 in proper relation to the bit of a key that is inserted in the lock. A key B is adapted to be inserted through a keyhole 30 and guide 31 and to

engage not only the edges 29 of the tumblers but also the spaced slots 32 and 33 in the bolt. The slot 32 is the one engaged by the key for unlatching the bolt or moving the same inwardly from its normal position, and the slot 33 is adapted to be engaged by the key when retracting the bolt from its safety locking position shown by dotted lines in Fig. 1, to the latching position shown by the full lines. The key makes only a little less than a full turn in unlatching the bolt, but in completely withdrawing the bolt from its safety locking position almost two turns of the key are necessary. The combination of the tumblers can be readily changed whenever desired.

From the foregoing description taken in connection with the accompanying drawing, the advantages of the construction and method of operation will be readily understood by those skilled in the art to which the invention appertains, and while I have described the principle of operation, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative and that such changes may be made when desired as fall within the scope of the appended claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. A lock of the class described comprising a casing, a bolt mounted therein and having spaced shoulders, said casing having a slot in its wall, a stop catch having a shank extending into the casing through the slot to engage the shoulders of the bolt, and a head bearing against the outer surface of the casing, a pin extending through the casing and having a free portion extending between the pin on the shank and the wall through which the shank extends, whereby the pin is frictionally engaged with the spring and the head of the stop catch is frictionally engaged with the outer surface of the casing, said spring being slotted to receive the shank.

2. A lock of the class described compris-

ing a casing having a slot, a bolt slidable in the casing and having spaced shoulders, a stop catch in the form of a button disposed outside the casing and a shank extending through the slot into the casing for engaging either of the shoulders, a leaf spring fastened in the casing adjacent the slot thereof, and means on the shank for frictionally engaging the spring and maintaining the button of the catch in frictional engagement with the outer surface of the wall of the casing.

3. A lock of the class described comprising a casing having a slot, a bolt movable in the casing and provided with spaced shoulders at the side of the bolt adjacent to the slot in the casing, a stop catch in the form of a button disposed outside the casing, and a shank extending through the slot into the casing to engage either of the shoulders of the bolt, a slotted leaf spring fastened in the casing and having its slot in alinement with the slot of the casing to receive the shank of the catch, and a pin in the said shank frictionally engaging the spring, whereby the latter holds the catch in position engaged with or disengaged from the bolt.

4. A lock of the class described comprising a casing, a bolt therein, and a spring device for automatically returning the bolt to normal position, said device being located to one side of the bolt and consisting of a follower engaging the bolt when the latter is in normal position, a rod connected rigidly with the follower, a frame fastened in the casing to one side of the bolt and having bearings for the rod, and a spring connected with the rod and adapted to compress when the bolt is withdrawn, whereby the tension of the spring serves to return the bolt to normal position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

KAŻIMIERZ PRAŻMO.

Witnesses:

NICOLS TRACZ,

STANLEY KUROWSKY.