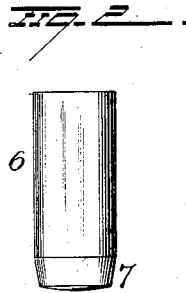
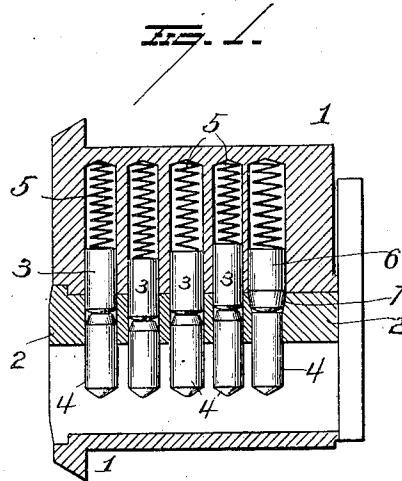


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PIN TUMBLER LOCK.
APPLICATION FILED MAY 31, 1912.

1,047,483.

Patented Dec. 17, 1912.



WITNESSES
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PIN-TUMBLER LOCK.

1,047,483.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed May 31, 1912. Serial No. 700,828.

To all whom it may concern:

Be it known that I, PETER F. AUGENBRAUN, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pin-Tumbler 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 relates to an improvement in pin tumbler locks.

In all pin tumbler locks the rotary strain on the plug through the cam at the rear end, or otherwise, tends to shift the pin tumblers sidewise, and causes them to bear or bind on opposite sides of the opening between the plug and the cylinder, so that at times considerable difficulty is experienced in forcing the key into the plug.

The object of the invention is to provide means whereby the plug is maintained against any rotary movement with reference to the cylinder except when turned by the key, and my invention consists in the parts and combination of parts as will be more fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in section of a pin tumbler lock embodying my invention. Fig. 2 is a view of the pin which locks the plug against any movement.

1 represents a cylinder and 2 the plug mounted to turn in the latter. The cylinder and its plug are provided with alined chambers for the pins 3, drivers 4 and springs 5, and the drivers and pins are actuated by the key introduced into the key way in the plug in the usual and well known manner.

One of the locking pins, preferably the rear one 6 as shown, is of greater diameter than the others, although this is not necessary, and is provided with a truncated conical lower end 7 as shown. The major part of the body of this pin 6, is cylindrical and closely fits within the cylindrical chamber in the cylinder 1, while the lower end thereof is conical and is adapted to rest in the conical seat formed in the plug at the upper end of the chamber carrying the rear driver,

so that, when this rear pin 6 is seated in the plug, as it will be each time the plug 2 is turned into position to release the key from the tumblers, there can be no movement of the plug, until the locking pin 6 has been elevated by the longitudinal movement of its companion driver 3, which of course occurs when the proper key is introduced into the plug.

With this construction all rotary strains upon the plug, are borne by the locking pin 6, which, owing to its shape, and the shape of its seat in the plug, seats itself as soon as the pins 3 and drivers 4 are in alinement. This pin 6 acts as a wedge and holds the plug tightly against all motion with reference to its cylinder, until it is set by the proper key. The result is that if any rotary strain is put upon the plug through the cam or otherwise, it is taken up by this beveled pin, leaving the other pins or tumblers 3 entirely free to be set by the key, and when the end of the key reaches the driver which coacts with the locking pin, this bevel or conical end, notwithstanding any strain thereon, enables this pin to be raised easily, and the lock can be operated. After the lock has been actuated, this beveled locking pin is the first to be disengaged by the key, hence it seats itself and locks the plug before any of the other pins are released.

Having fully described my invention, what I claim as new and desire to secure by Letters-Patent, is:—

1. A pin tumbler lock comprising a cylinder, a plug, locking pins and drivers, one of the locking pins having a wedge shaped end adapted to rest in a correspondingly shaped seat formed in the plug.

2. A pin tumbler lock comprising a cylinder, a plug, locking pins and drivers for the latter, one of said locking pins being of greater diameter than the others and provided with a beveled end adapted to rest in a beveled seat in the plug.

3. A pin tumbler lock comprising a cylinder, a plug, locking pins and drivers for the latter, the rear locking pin of the series being provided with a beveled or wedge shaped end adapted to normally rest in a correspondingly shaped seat in the plug.

4. A pin tumbler lock comprising a cylinder, a plug, locking pins and drivers, one of

the locking pins constructed to have a wedging action in the plug whereby it takes all the rotary strains imparted to the plug when the latter is locked.

- 5 5. A pin tumbler lock comprising a cylinder, a plug, locking pins and drivers for the latter, one of the locking pins being of greater diameter than the others and provided with a wedge shaped end adapted to

rest in a correspondingly shaped seat in the 10 plug.

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

PETER F. AUGENBRAUN.

Witnesses:

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ELMER CLARENCE LOCKWOOD.