



# UNITED STATES PATENT OFFICE.

HANSFORD C. STEVENS, OF FLEMINGTON, WEST VIRGINIA.

## LOCK.

966,261.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed March 16, 1910. Serial No. 549,616.

*To all whom it may concern:*

Be it known that I, HANSFORD C. STEVENS, a citizen of the United States, and a resident of Flemington, in the county of Taylor and State of West Virginia, have invented certain new and useful Improvements in Locks, of which the following is a specification.

This invention is an improvement in locks and especially in the class of hasp locks such as are particularly adapted for use in fastening trunks, dress suit cases and the like; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing Figure 1 is a front elevation of my lock as in use. Fig. 2 is a cross section on about line 2—2 of Fig. 1. Fig. 3 is a cross section on about line 3—3 of Fig. 1. Fig. 4 is a detail top plan view of the rotary tumbler. Fig. 5 is a detail perspective view of the underside of the knob and Fig. 6 is a detail top plan view of the case with the latch in place, the hub being shown in section.

While in Figs. 1 and 2 the lock is shown as mortised or recessed into the body of the trunk, it is manifest it may be mortised into the lid without departing from the principles of my invention.

In the construction shown the bolt A is mounted on the trunk body B and the lock case C is carried on the swinging end of the hasp D which is pivoted at D' to the trunk lid E and is actuated by a spring F outwardly off the bolt A when the latch devices presently described are released. This hasp D forms what may be termed a main frame or carrier at D<sup>2</sup> for the lock case C, but manifestly when the lock is used for other than trunk or dress suit cases, the lock may be supported in any suitable manner.

As shown, the lock case has a base plate C' and a cylindrical flange C<sup>2</sup> and is provided at its center with a tubular hub G mounted on the base plate and open at its inner end for the reception of the bolt A as shown in Figs. 2 and 3 and provided at its outer end with a cap G' which projects at its edge G<sup>2</sup> over and operates to retain the knob H upon the said hub.

Adjacent to the base plate C' of the case C, I form the hub G with a slot G<sup>3</sup> and through which the tongue I' of the latch I plays into and out of engagement with the bolt A. This latch I is pivoted at I<sup>2</sup> to the base plate C', is actuated by a spring J nor-

mally to the position shown in Figs. 2 and 6, in which it will engage in the notch A' of the bolt A and at its free end the latch I underlies a keeper I<sup>3</sup> which braces the latch in position for holding the bolt A as will be understood from Figs. 3 and 6 of the drawing.

The latch I is adapted for engagement by the projecting pin K of the knob H, being in the construction shown provided with an opening I<sup>4</sup> for such purpose, the said opening being formed to receive the end of the pin K when the latter has been forced through and beyond the rotary tumbler L presently described.

The rotary tumbler L has a base plate L' which overlies the base plate C' of the casing C and also overlies the latch I and this tumbler L has a central opening L<sup>2</sup> fitting over and turning upon the hub G and is also provided with a cylindrical flange L<sup>13</sup> operating within the case and serving as a guide for the knob H as the latter is forced in and out in the operation of the invention.

The knob H may be milled on its outer end at H' to facilitate its turning as will be understood from Figs. 1 and 2 and this knob has a central opening H<sup>2</sup> to fit over the hub G and is provided on its inner side with a pin K provided at its inner end with a reduced extension K'.

The base plate L' of the tumbler L is provided with a number of openings L<sup>3</sup> any one of which is large enough to receive the reduced extension K' of the knob pin K and the said plate L' is provided also with a larger opening L<sup>4</sup> adapted to receive the body of the pin K as will be understood from Figs. 3, 4 and 5 of the drawing. The pin K is disposed on the knob H to enter any one of the circular series of holes L<sup>3</sup>, L<sup>4</sup>.

The knob H is pressed outwardly to the position shown in Fig. 2 by a spring M bearing between the said knob and the plate L' of the tumbler and the said knob may be depressed from the position shown in Fig. 2 to that shown in Fig. 3 to cause the knob pin to project through the opening L<sup>4</sup> of the tumbler L and with its extension K projecting into the opening I<sup>4</sup> of the latch as shown in Fig. 3 so a proper turning of the knob will adjust the latch I back from the position shown in full lines in Fig. 6 to that indicated in dotted lines in the same figure in which the latch will release the bolt.

In carrying out the invention, I provide

the knob, the tumbler and the casing with suitable graduations and the knob H, tumbler and casing are arranged in such relation that when a certain combination is formed, the knob pin K will be directly over the larger opening L<sup>4</sup> of the tumbler and such opening L<sup>4</sup> of the tumbler will be directly over the opening I<sup>4</sup> of the latch so a depression of the knob to the position shown in Fig. 3 will adjust the knob pin through the base plate of the tumbler and into engagement with the latch to operate the same as desired. Thus the bolt A may be released and the bolt is beveled on its outer end at A<sup>2</sup> so it will automatically adjust into locked engagement with the latch I' when the parts are forced together in the position shown in Fig. 2.

In operation the knob may be readily turned, the combination being known, to bring its pin K into alinement with the opening L<sup>4</sup> and the pin be then depressed into the said opening L<sup>4</sup> and the knob be turned with the tumbler until the pin registers with the opening I<sup>4</sup> of the latch, or if desired the knob may be depressed to bring its reduced extension K into any one of the openings L<sup>3</sup> of the tumbler and be operated to turn the tumbler until its opening I<sup>4</sup> is alined with the opening I<sup>4</sup> in the latch and the knob be then released and then turned relatively to the tumbler L to bring the pin into alinement with the opening L<sup>4</sup> and the knob be then depressed to force its pin into engagement with the latch when a turning of the knob in the proper direction will throw the latch I<sup>4</sup> out of the dotted line position shown in Fig. 6 and release the bolt.

As best shown in Fig. 2, the lock is mortised or recessed into the trunk, and as best shown in Figs. 2 and 3 a stop shoulder is provided on the tubular hub to limit the inward movement of the knob.

The tubular hub cap piece does not extend above the hasp and the hasp thus protects the lock.

I claim:

1. The improvement in locks herein described consisting of the case having a base plate provided with a cylindrical rim flange, a tubular hub mounted on the base plate and having a lateral opening adjacent thereto, a latch pivoted on the base plate and provided with a tongue movable through the opening in the tubular hub into the same, a spring actuating the latch, a keeper on the base plate and overlying the movable end of the latch to brace the same, the latch having an opening for the reception of an operating pin, a tumbler surrounding the tubular hub and having relatively large and small openings which may be brought into coincidence with the opening in the latch, a knob surrounding the tubular hub and overlying the tumbler, a spring pressing said knob out-

wardly away from the tumbler and an operating pin projecting from the knob toward the tumbler plate and having at its inner end a reduced extension, the body of the pin and said reduced extension being adapted respectively to the large and small openings of the tumbler, all substantially as and for the purposes set forth.

2. In a lock, the combination with a casing having a base plate provided with an opening and a tubular hub surrounding the same and having a lateral opening in said hub adjacent to the base plate, a latch having a tongue movable into the opening in said hub, a tumbler plate overlying the said latch and a spring actuated knob overlying the tumbler plate and having a latch operating pin adapted to project through the tumbler plate into engagement with the latch for operating the same, the tumbler plate having an opening for the passage of said pin, substantially as set forth.

3. A lock comprising a case having a base plate, a latch movable laterally on the base plate, a tumbler plate overlying the said latch and having relatively large and small openings, a knob movable toward and from the tumbler plate and having a pin having a body portion and a reduced extension which are related to the large and small openings of the tumbler plate whereby the pin may have a limited movement through the tumbler plate or a further movement therethrough in adjusting the pin to position to operate the latch, substantially as set forth.

4. The combination in a lock of a casing a laterally movable latch for securing a bolt, a tumbler plate overlying the latch and a knob overlying the tumbler plate and movable toward and from the same and having a projecting pin adapted to extend past the tumbler plate into engagement with the latch whereby to operate the same, substantially as set forth.

5. A lock having a case provided with a base plate having a central opening for a bolt, a tubular hub on the base plate and surrounding said opening and provided adjacent to the base plate with an opening, a latch pivoted to the base plate and having a tongue movable through the lateral opening in the hub, a tumbler plate overlying the latch and having relatively large and small openings, a knob surrounding the hub and overlying the tumbler plate and having an operating pin projecting toward the tumbler plate and adapted to be passed through the large opening of the tumbler into engagement with the latch and a spring pressing said knob outwardly, substantially as set forth.

6. A lock case having a tubular hub adapted to receive a bolt, means carried by the lock case for securing the bolt, an operating

device for releasing said means and movable  
along the hub in a direction parallel to the  
axis of the hub and a tumbler between the  
said means and the operating device, sub-  
5 stantially as set forth.

7. A lock case having a tubular hub adapt-  
ed to receive a bolt, means carried by the  
lock case for securing the bolt, an operating

device for releasing said means and a tum- 10  
bler encircling said hub and arranged be-  
tween the operating device and the bolt se-  
curing means, substantially as set forth.

HANSFORD C. STEVENS.

Witnesses:

J. B. GRAY,

H. W. DEMPSEY.