

United States Patent Office.

JOSEPH S. ELLIOTT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
HIMSELF AND A. B. COOLEY, OF SAME PLACE.

Letters Patent No. 77,723, dated May 12, 1868.

IMPROVEMENT IN HASP-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH S. ELLIOTT, of Philadelphia, Pennsylvania, have invented an Improved Lock for Hasps, &c.; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists of a lock, fully described hereafter, to be used in connection with a hasp, and for other purposes, which is simple in its construction, and not liable to get out of order, while the several parts composing it are so arranged that it cannot be readily picked.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a face view, partly in section, of my improved lock for hasps, &c.

Figure 2, an inverted sectional plan view of the same on the line 1-2, fig. 1.

Figure 3, a transverse section on the line 3-4, fig. 1, showing the key detached.

Figure 4, a face view, in a position opposite to that shown in fig. 1; and

Figure 5, an enlarged sectional view of a portion of fig. 4.

Similar letters refer to similar parts throughout the several views.

The lock-case A is secured to or forms a part of the hasp B, which has at one end an eye, *a*, by means of which it is attached to a door or gate, and near to the opposite end a horizontal slot, *b*, for the admission of the end of a staple, *x*, (shown in red lines,) which is secured to the door-post.

The latch-hook C is hung to the face of the hasp by a pin, *c*, its hooked and notched end, *d*, passing through the staple *x* and into a circular opening, formed for its reception in the upper portion of the lock-case A, the latter being covered by a face-plate, *e*, as shown in fig. 2.

A frame or bolt, D, consisting of two end-pieces, *h* and *i*, and of side-pieces *t t*, is arranged to slide within the case A, and is acted upon by a spring, *f*, fig. 1, which bears against a projection, *g*, of the case, and against a lug, *g'*, of the bolt, as shown in fig. 2. the said spring having a constant tendency to force the bolt rearward in the direction of the arrow, fig. 2.

The notch *d* of the latch is formed for the reception of the front end, *h*, of the bolt D, as will be hereafter described, and from the rear end, *i*, of the latter projects a pin, *i'*, which passes through a slot, *j*, on the outer casing, as clearly shown in fig. 5, and by means of which the bolt can be moved by hand.

Three or other suitable number of tumblers F are hung to a pin, *k*, within and between the side-pieces *t t* of the frame or bolt D, and to each tumbler is secured a flat spring, *l*, which bears against the upper portion of the lock-case, and has a tendency to depress the outer end of the tumbler, for a purpose described hereafter.

A single tumbler, G, of the peculiar shape shown in fig. 5, is hung within and near to the opposite end of the bolt D, by a pin, *m*, in such a manner as to overlap and pass to one side of the tumbler F.

When the parts are in the positions shown in figs. 1 and 5, all of the tumblers F are depressed, by the action of their springs *l*, until their rear ends bear against a lug, *p*, of the lock-case, the tumblers thus effectually preventing the bolt D from sliding rearward, which it would otherwise do by the action of its spring *f*.

When the tumblers are thus depressed, they are held in place, and prevented from being raised by any pressure applied from below, by a pin, *n*, on the guard-tumbler G, which passes over and enters notches *q* of each of the tumblers F, as shown in fig. 5.

The latch-hook C is, by this means, securely locked, and prevented from being raised; for, when the parts are in the position above described, the front portion, *h*, of the frame D, which forms a bolt for the latch, enters the notched end of the latter, and holds it securely, (see fig. 1.)

When it is desired to unlock the hasp, a flat key, H, (shown detached in fig. 3,) is inserted into a narrow slit, *r*, on the under portion of the lock-case, beneath the tumblers, and is then pushed directly upwards. The longest ward *s* of the key *i* strikes the tumbler G, and operates it first, raising its pin *n* clear of the notches *q* of the tumblers F, thus freeing the latter. The other wards of the key then strike and raise the outer ends of

the tumblers F, until the latter are clear of the projection on the lock-case *p*, after which the bolt D, by the action of its spring *f*, is drawn back from the notched end, *d*, of the latch-hook, when the latter may be raised, and the hasp freed from the staple *x*.

In order to relock the hasp, the latch is inserted into the lock-case, and the bolt pushed forward, by means of its projecting pin *z'*, the bolt being caught and retained in its position by the tumblers F and G, as before described.

The above lock is simple in its construction, and is not liable to get out of order, nor can it be readily picked by means of an instrument inserted into the slit, *r*, as the tumbler G must always be operated properly at first before any of the tumblers F can be raised.

Although I have described my improved lock as being used in connection with a hasp, it will be evident that it may be slightly modified in form, and used for any purpose for which ordinary locks are employed.

I claim as my invention, and desire to secure by Letters Patent—

The bolt D, operated by a spring, *f*, and projecting pin *z'*, as described, and the tumblers F and G, secured within, and arranged to operate in connection with the said bolt and with each other, in the manner and for the purpose herein set forth.

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

J. S. ELLIOTT.

Witnesses:

JOHN WHITE,

WM. ALBERT STEEL.