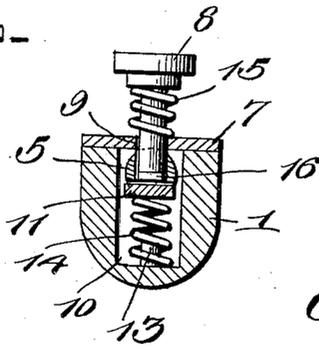
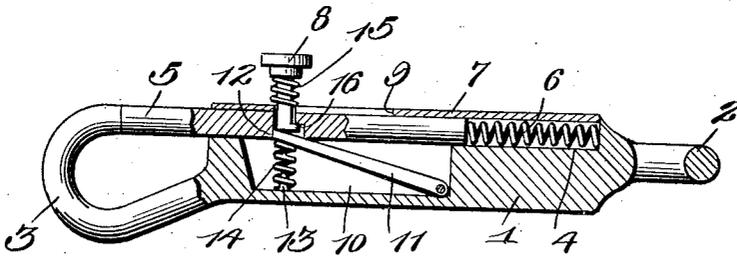
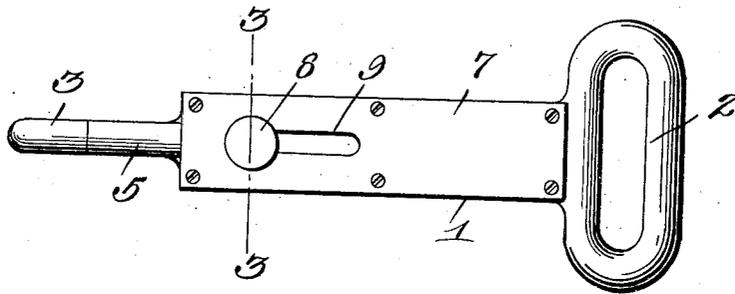


C. E. KOONS.
 SNAP HOOK.
 APPLICATION FILED SEPT. 25, 1912.

1,062,653.

Patented May 27, 1913.



Inventor

C. E. Koons,

Witnesses

Chas. L. Gristauer.
 A. J. Hind.

By

Watson E. Coleman,
 Attorney

UNITED STATES PATENT OFFICE.

CLARENCE E. KOONS, OF WESTERVILLE, OHIO.

SNAP-HOOK.

1,062,653.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed September 25, 1912. Serial No. 722,351.

To all whom it may concern:

Be it known that I, CLARENCE E. KOONS, a citizen of the United States, residing at Westerville, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Snap-Hooks, of which the following is a specification, reference being had to the accompanying drawings.

The present invention relates to new and useful improvements in snap hooks, and the primary object of the invention is to provide the locking bolt with means whereby it will be locked against accidental opening.

Another object of the present invention is to provide an article of this character which will be strong, durable and efficient when in use and having a locking tongue which, when in a closed position, will be securely locked against accidental opening but at the same time may be easily and readily unlocked and opened by a natural movement of the thumb.

With the above and other objects in view, this invention consists of the novel details of construction, combination, formation and arrangement of parts as will be hereinafter more fully described, claimed and pointed out in the accompanying drawings.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited but the right is reserved to any changes, alterations, or modifications that come within the scope of the invention without departing from the spirit thereof.

In the said drawings, Figure 1 illustrates a plan view embodying my invention, Fig. 2 is a longitudinal vertical section of the same, and Fig. 3 is a section taken on the line 3—3 of Fig. 1.

Referring now more particularly to the drawings, wherein like and corresponding parts are designated by like reference characters throughout the several views, the numeral 1 indicates the body portion of the hook which is formed of any desired shape or suitable metal having an ordinary strap eye 2 at one end thereof and the curved hook 3 formed at the opposite extremity thereof. Formed within the upper face of the body portion of the hook is a cylindrical opening 4 in which is slidably mounted the locking bolt 5 which is adapted to engage the free

end of the hook 3 forming a closed loop to which a strap or other article may be detachably secured in the usual manner. Mounted within the opening 4 adjacent the rear end thereof is a coil spring 6 which is adapted to normally hold the locking bolt 5 in an outward position.

A plate 7 is detachably secured to the upper face of the body portion 1 by means of set screws or the like so that access may be readily gained within the interior of the hook whereby the parts thereof may be readily replaced should the same become worn or broken. A thumb bolt 8 is slidably mounted in an opening formed within the locking tongue 5 and is adapted to operate within an elongated slot 9 formed within the plate 7, thereby providing means whereby the locking bolt may be reciprocated within the body portion of the hook for unlocking the same in the usual manner.

To provide means for preventing the accidental opening of the locking bolt 5, I form within the body portion 1 of the hook an elongated recess 10 in which is pivotally mounted a pawl 11. The free end of this pawl 11 is adapted to engage a notch 12 formed within the lower face of the locking bolt 5 when the locking bolt is in an outward position thereby locking the same to prevent its accidental displacement until the pawl has been released. A lug 13 extends within the recess 10 and encircling the said lug is one end of a coil spring 14 which is adapted to rest upon the lower face adjacent the outward end of the said pawl 11 for normally holding the same in a raised position so that it will readily engage the notch 12. The thumb bolt 8 is adapted to rest upon the upper face of the pawl 11 and by pressing downward upon the thumb bolt 8 the pawl will be released from the notch 12, thereby permitting the locking bolt 5 to be forced rearwardly into the body portion of the hook, for unlocking the same. A coil spring 15 is mounted between the plate 7 and the head of the thumb bolt for normally holding the same in a raised position. The lower extremity of the thumb bolt 8 is provided with a lug extension 16 which is adapted to rest within a recess formed within the locking bolt 5 to prevent the coil spring 15 from raising the thumb bolt out of engagement with the locking bolt 5.

It is obvious from the foregoing description taken in connection with the accom-

panying drawings that by pressing downwardly upon the thumb bolt 8 the pawl will be released from the locking bolt, thereby allowing the locking bolt to be forced rearwardly into the body portion of the hook for unlocking the same, but when the thumb bolt is released the coil spring 6 will force the locking bolt in an outward position and the pawl 11 will normally engage the notch 12, thereby securely locking the bolt 5 in its outward position.

From the foregoing description taken in connection with the accompanying drawings, it is apparent that a snap hook of this character will be inexpensive in the cost of manufacture and the parts thereof may be readily assembled and installed, thereby rendering the same commercially desirable.

What I claim is:

20 A snap hook comprising a body portion

having an eye formed at one end and a hook formed at the opposite end, said body portion having a recess formed therein, a locking bolt slidable through the body portion to cooperate with the hook, said locking bolt having an opening extending there- 25 through, operating means within said opening and a pawl pivoted within the recess for engagement with the opening in the locking bolt, and the opposite end of the 30 pawl contacting with the bottom and one end wall of the recess for preventing any undesired movement thereof, whereby injury will be caused to its pivot pin.

In testimony whereof I hereunto affix my 35 signature in the presence of two witnesses.

CLARENCE E. KOONS.

Witnesses:

BURR LINNABARY,
S. P. LANE.

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