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2,969,668

KEY HOLDER HOOK

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Fig. 1

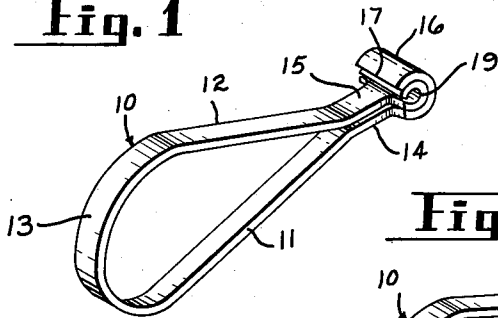


Fig. 2

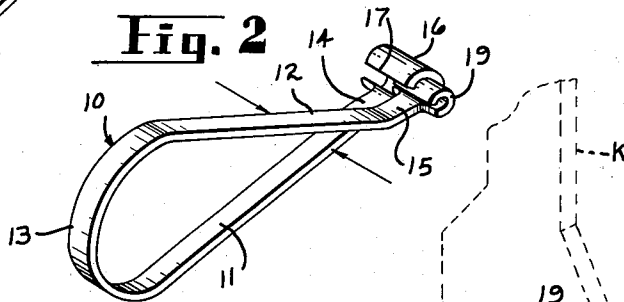


Fig. 3

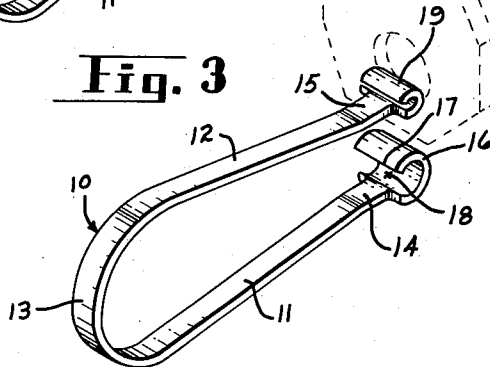


Fig. 4

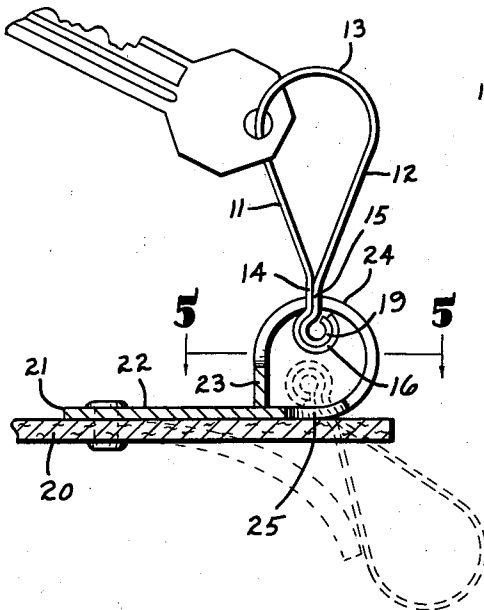
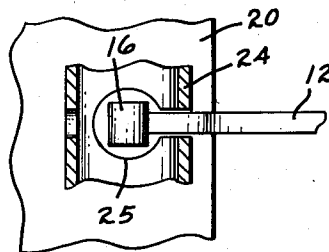


Fig. 5



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KEY HOLDER HOOK

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2 Claims. (Cl. 70—458)

This invention relates to key hooks or loops and particularly to hooks that are adapted to be removably fitted into the holders of key cases containing a plurality of key hooks. Such a key hook is usually constructed in the form of a pear-shaped loop made from wire or flat stock and having a head on one end which is adapted to be removably interfitted into a holder member forming a part of the key case.

The opposite end of the hook is usually shorter than the headed end and is formed with a hook or clasp of some form for embracing the shank of the arm adjacent the headed end of the hook a short distance from said head. One of the faults of such a hook was that if any excessive strain were placed on the hook due to a pulling force on the key, the free end of the hook could be pulled way from the headed end to such an extent that the hook would be distorted and rendered ineffective as a suitable key retainer.

One object of my invention is to provide headed ends on the free ends of each arm of a character wherein the headed ends can be locked together, one within the other, to form in effect a single head and securely held within the holder member of a key case.

Another object is to provide a key hook with a head of the above character that can be formed by a simple bending operation to reduce the cost of manufacture.

Other objects and advantages of the invention will be obvious from the following description and the accompanying drawing in which:

Fig. 1 is a perspective view of a key hook embodying my invention and showing the headed ends in locked position;

Fig. 2 is a similar view showing the headed ends partially released;

Fig. 3 is a similar view showing the headed ends released and sprung apart ready to receive a key;

Fig. 4 is a side view of the key hook assembled into a key container shown in cross-section; and

Fig. 5 is a cross-section of the key container taken along the line 5—5 of Fig. 4 showing the key hook in position to be removed or assembled.

In the drawing, the numeral 10 designates generally a key loop or hook which is shown as made from a strip of flat sheet metal spring stock and consists of a pair of diverging arms 11 and 12, hereinafter referred to as the first and second arms for the sake of convenience. The arms 11 and 12 are joined together by a connecting end loop 13 and at their opposite ends terminate in relatively short straight shanks 14 and 15. The lower or first arm 11 is formed with a relatively large hollow cylindrical head 16 having its axis perpendicular to the longitudinal axis of its respective supporting arm. The length of the head 16 is preferably somewhat greater than the width of the supporting arm 11 and the terminal edge 17 is spaced a sufficient distance from the arm shank 14 so as to provide a slot 18 extending across said shank.

The opposite or second arm 12 terminates at its shank

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end 15 in a smaller hollow cylindrical head 19, the length of which is greater than the width of the arm 12 and substantially equal to the length of the larger head 16. The external diameter of the smaller head 19, however, is such so as to permit it to have a free telescopic fit endwise into the larger head 16 of the first arm as best seen in Fig. 2.

In the normal locked position of the key hook, the heads 16 and 19 will be telescopically fitted as shown in Fig. 1 and by reason of the inherent springness of the hooks, said heads will be automatically centralized relative to each other.

In order to assembly a key to the hook, opposing forces as indicated by the arrows in Fig. 2, must be applied to diametrically opposite edges of the first and second arms 11 and 12 to move the smaller head 19 to one side or the other of the larger head 16 so that the ends of said heads will clear each other whereupon the arms 11 and 12 will spring apart to the position shown in Fig. 3. In this position, the heads 16 and 19 will be spaced far enough apart and one above the other to permit the eye of a key head to be slipped over the smaller head 16 and onto the key hook—a key K being shown in phantom in Fig. 3. When the key K is thus assembled, the cylindrical heads 16 and 19 may then be aligned and telescoped into each other with the shank 14 of the second arm 12 slipping edgewise into the slot 18. As pointed out above, the inherent spring tension of the material from which the hooks are made will automatically complete the assembled telescopic action of the heads 16 and 19.

Fig. 5 shows the manner in which any key hook may be assembled to a conventional key case, a portion only being shown, which case may be like the one described in the Duell Patent 2,679,154. Such a case may consist of a leather backing 20 and a key hook retainer 21. The retainer 21 usually consists of a flat plate 22 secured to the leather back 20 by rivets. The plate 22 is formed at one end with a rolled barrel portion 23 in which is provided a series of transverse slots 24 wide enough to freely receive the transverse width of the key hook arms 11 and 12. The slots 24 intercept enlarged openings 25 located substantially at the point where the barrel portion 23 connects to the flat plate 24 and which openings 25 are large enough to permit the larger head 16 of the key hook to be inserted and removed there-through.

To assemble the key hook into a container of the type illustrated in Fig. 5, it is only necessary to bend the upper free end of the leather backing 20 down to the dotted line position whereupon the head of the key hook may be inserted through the opening 25 from the underside thereof, said hook and its companion key normally lying across the top of the flat plate 22 and the leather backing closing up the opening 25.

It is to be noted from Fig. 4 that one of the advantages of my key loop construction is that if any excessive force is applied to the key to pull the hook out of the barrel portion of the retainer, it will only tend to cause the larger head portion 16 to close about the interior smaller head portion 19 and increase the locking effect of the head portions within each other as well as with said barrel portion of the key container.

While only one form of the invention is shown and described herein, it will be understood that changes and modifications may be made within the spirit and scope of the following claims.

What I claim:

1. A key hook of flat sheet metal spring material comprising first and second arms joined together by a connecting loop, one end of the first arm formed with a hollow cylindrical head portion having open ends with its axis perpendicular to the axis of said first arm, said

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head portion having a transverse slot adjacent said first arm, and the opposite or second arm having a cylindrical head portion also with its axis perpendicular to the axis of its support arm, said second cylindrical head of smaller diameter than the head on the first arm adapted to be slipped endwise to fit first cylindrical head whereby the arm of said second head is disposed in said slot and said second head is held there in place against movement parallel to said arms.

2. A key hook of spring material comprising diverging arms of substantially equal length and joined together by a connecting loop, the free ends of said arms having cylindrically shaped headed portions wider than said arms and with their axes perpendicular to the axes of their respective supporting arms, one head being of larger

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diameter than the other, being open at both ends and having a transverse slot adjacent the arm, whereby the smaller head can telescope into the larger head with the arm carrying such smaller head entering said slot.

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