Jan. 9, 1968 H. S. LANIER 3,362,200

KEYHOLDER

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FIG. 1

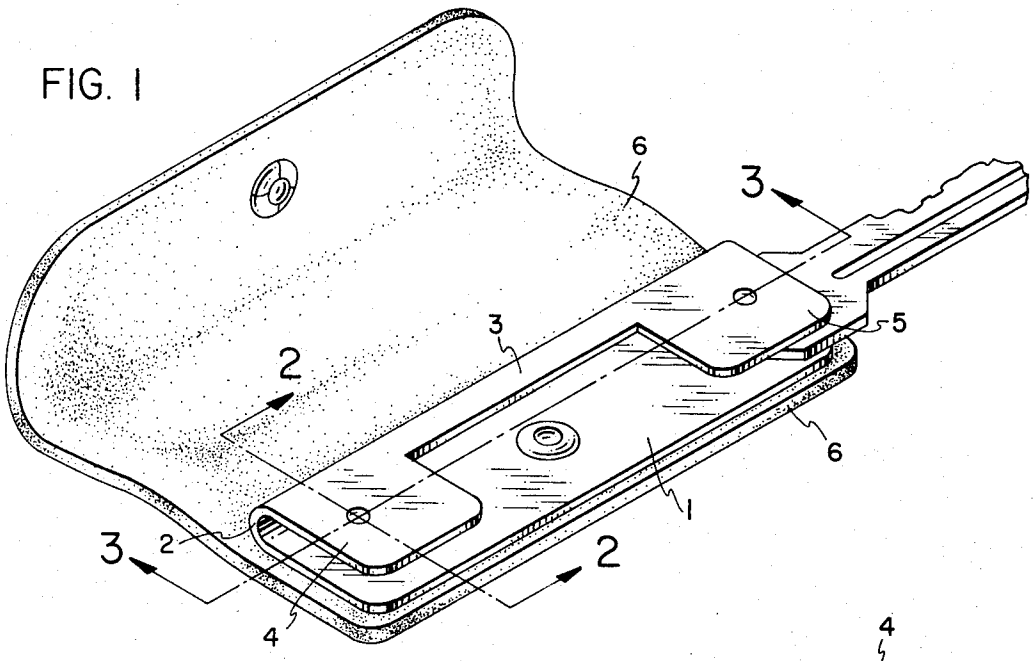
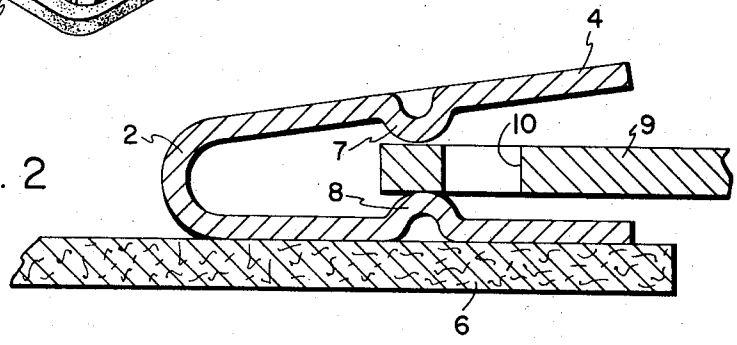


FIG. 2



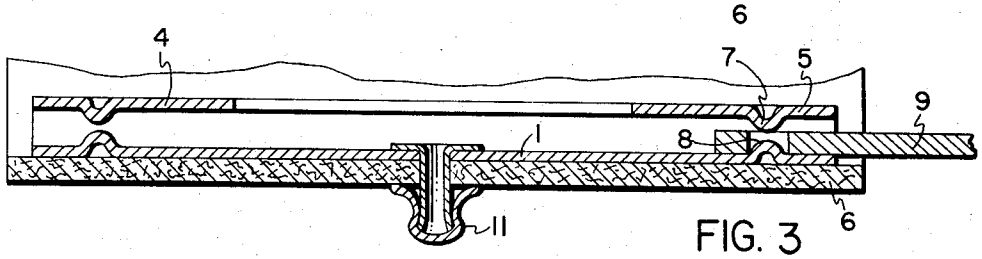
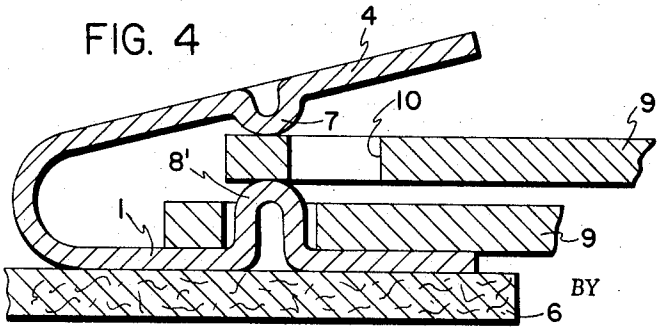


FIG. 3

FIG. 4



BY

INVENTOR

HAROLD S. LANIER

Clifton T. Hunt, Jr.

ATTORNEY

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FIG. 5

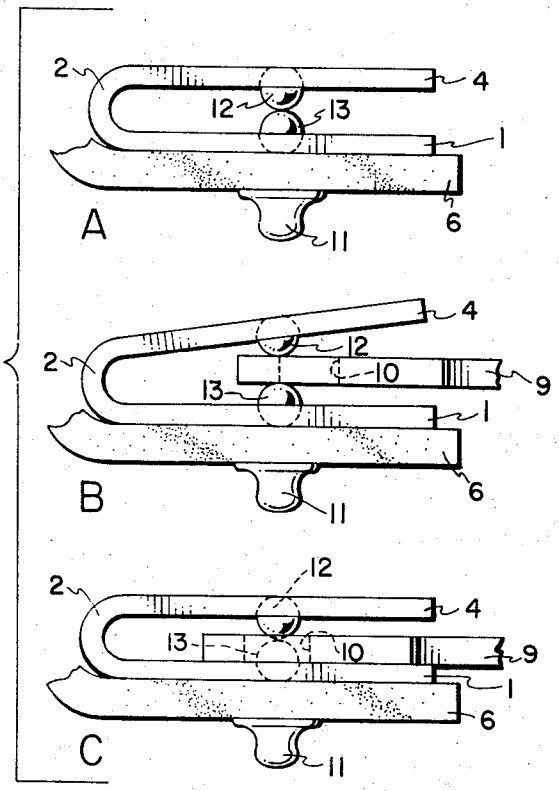
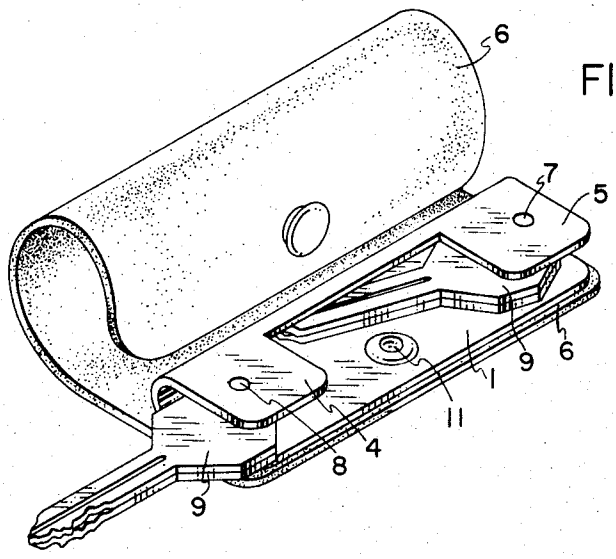


FIG. 6



INVENTOR

HAROLD S. LANIER

BY Clifton T. Hunt, Jr.

ATTORNEY

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KEYHOLDER

Harold S. Lanier, P.O. Box 398,
Welcome, N.C. 27374

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5 Claims. (Cl. 70—456)

ABSTRACT OF THE DISCLOSURE

This invention relates to a keyholder that is compact and capable of carrying a number of keys and permitting ready access to all of them.

Many of the keyholders now available commercially are bulky and obtrusive when carried on one's person. Others are complex and expensive and have many moving parts. Still others although bulky and complicated do not permit ready access to the keys and also do not permit the removal of a key while the key is inserted in a locking mechanism. One object of this invention is to provide a key case that has none of these objectionable features.

Another object of this invention is to provide a keyholder that is compact and simple, yet capable of containing a plurality of keys.

Another object of this invention is to provide a keyholder that permits ready and rapid access to any particular key contained therein.

A still further object of this invention is to provide a keyholder that permits a key to be inserted into or removed from the holder rapidly and with a minimum of effort.

Another object of this invention is to permit rapid insertion or removal of a key into or from the holder while the key is mounted in a lock.

With the foregoing and other objects in view, I have devised a keyholder illustrated in the accompanying drawings forming a part of this specification. It is, however, to be understood that the invention is not limited to the specific details of construction and arrangements shown but may embody various changes or modifications within the scope and spirit of the illustrated invention.

In these drawings; FIGURE 1 is a perspective view of one embodiment of the keyholder assembly.

FIGURE 2 is an enlarged transverse sectional view, with parts broken away, taken along the line 2—2 in FIGURE 1 and showing a key being inserted between the projections.

FIGURE 3 is a longitudinal sectional view taken along the line 3—3 in FIGURE 1.

FIGURE 4 is a view similar to FIGURE 2 but showing a modified form of the invention and one key being placed in the holder over a first key that is already in a secured position in the holder. FIGURES 5A, B and C are illustrative of the sequence of mounting or securing the key in another embodiment of the present inventive keyholder. FIGURE 6 is a perspective view illustrating the keyholder assembly of the first form of this invention in which a plurality of keys are mounted.

In the embodiment of the invention shown in FIGURE 1 a frame having a rigid or solid base member **1** may constitute the first of a pair of generally planar legs. The relatively rigid base member **1** is connected by means of a web member **2**, to a second generally planar leg **3**, the second leg being cut-away or notched in its medial portion so as to define in a pair of ears or tabs **4** and **5**, respectively.

The web as illustrated in the drawings may be made integral with the leg members or may comprise a separate member used for connecting the two leg members.

The corners of the tabs or ears should generally be rounded so as not to constitute a hazard. The cut-away

or notched medial portion of the planar leg **3** will usually form a U-shaped cut out in the leg. This cut-away section will allow easy and rapid access to any key contained within the frame member as one may pivot any number of keys until the one that is desired is selected.

The frame may be adhesively or otherwise fastened to a relatively flexible sheath member **6**. The sheath member may be fitted with a conventional snap fastener or other conventional fastener so as to completely enclose the keys within the frame when the snap fastener is engaged.

In the FIGURE 2 a pair of protuberances or projections **7** and **8** are shown as they engage the head of a key **9** that is being positioned between the projections as the key is inserted between the projections and forces them apart by the resilience or springiness of the frame.

The resilient action of the tabs or ears **4** and **5**, or the resilience of the web **2** will permit the ears or tabs to separate from the rigid base member or move apart sufficiently to permit a key **9** to be inserted between the projections or protuberances **7** and **8**. After the key is properly positioned the resiliency will cause the protuberances or projections to be seated in the opening **10** in the key handle and provide a pivotal connection between them. As can be readily observed from the drawings, a key or keys so positioned on one or more pairs of protuberances or projections will pivot readily into and out of the frame member. After pivoting the bit of a key out of the frame to be inserted into a lock the sheath member may be snapped or fastened. Even with the sheath member closed and fastened a key may be readily removed from the frame, without removing the key from a lock in which it is engaged by merely pulling the key. The key may also be inserted between the protuberances in a similar manner by pushing the key in order to position the opening **10** in the handle thereof on the protuberances.

In FIGURE 2 the protuberances are of essentially equal height or project an equal distance from the walls of each of the leg members and can be formed by the use of a conventional punch alone or in combination with the die means. The frame is preferably stamped from one piece of metal or plastic and the protuberances can be formed in the same operation by a round head punch or die. The protuberances will usually be circular in cross section but may be substantially square, rectangular or eliptical so long as the corners are rounded off to make the insertion or removal of keys possible.

In FIGURE 3 the key **9** is securely fastened between the projections or protuberances **7** and **8**, with projection **8** located with the opening in the handle in the key. A conventional grommet type snap fastener **11** is illustrated with the male member secured to the flexible sheath **6**.

In FIGURE 4 the projection or protuberance **8'** is substantially twice the height or extends twice the distance from the wall of leg member **1** than the extension of protuberance or projection **7** from the wall of tab **5** so as to make possible the mounting of a plurality of keys between the protuberances.

In FIGURE 5A, tab member **4** is fitted with a conventional ball bearing **12** that extends inwardly to contact a ball bearing **13** mounted in the wall of leg member **1**. These ball bearings may be mounted in sockets or other suitable openings that are of sufficient size to accommodate each ball and keep it in rotatable contact with the opposing ball bearing. In FIGURE 5B the resilience of the leg members or the web **2** allows the ball bearings to be forced apart upon the insertion of the head of the key **9**.

FIGURE 5C illustrates each of the ball bearings **12** and **13** as they are seated or projected into the opening or hole in the key handle so as to securely fasten the key or keep within the rigid frame member.

FIGURE 6 illustrates the first embodiment of the invention where two keys are pivotally fastened between

tab 4 and rigid base or solid plate 1 by a pair of inwardly projecting protuberances extending towards each other. Two other keys are fastened between tab member 5 and the base 1 by a separate pair of opposite and inwardly extended protuberances or projections. As shown in FIGURE 6, the projections at tab 4 are spaced longitudinally from the projections at tab 5 a distance at least equal to the distance between the openings in the heads of keys 9 and the distal ends of the bits of keys 9 to permit the keys to be pivoted inwardly within the frame of the keyholder.

The wrap-around sheath member 6 can be formed of any suitable flexible material such as leather, plastic, fabric or the like. This flexible sheath member may be adhesively laminated to the rigid base member 1 by means of any suitable conventional adhesives that are conventionally used in the laminating or adhesive industry.

The rigid base member 1 illustrated in all the above figures may be made of a metal or plastic or any other rigid but resilient material.

It should be understood that rigid base member 1, web 2 or the tabs 4 and 5 may be made from the same or different materials. One or more of each of these elements should be made from a comparatively resilient material, for example, spring steel or an equivalent metal or metal alloy, or a sufficiently resiliently rigid plastic, for example, styrene, polyethylene, polypropylene, or copolymers thereof.

Thus having set forth the nature of my invention, I claim:

1. A keyholder for keys of the type having a head with an opening in it and a bit, said keyholder comprising a U-shaped frame in cross-section having a longitudinal dimension at least equal to the overall length of the key with which the keyholder is to be used, said U-shaped frame including one leg comprising a solid plate and the other leg being cut away between its longitudinal ends to define tabs at each of its longitudinal end portions,

said legs being joined by a web, each of said tabs being movable relative to each other and to said plate, a pair of opposed projections at each longitudinal end portion of the frame, said pairs of opposed projections being spaced longitudinally from each other a distance at least equal to the distance between the openings in the heads of the keys and the distal ends of the bits of the keys, and the projections in each of said pair of opposed projections extending toward each other from one of said tabs and said plate, whereby keys may be pivotally supported on each pair of projections and releasably retained within said frame.

2. The apparatus of claim 1 wherein each of the opposing projections is of an essentially equal height.

3. The apparatus of claim 1 wherein one projection is substantially twice the height of the opposing projection.

4. The keyholder of claim 1 wherein at least one pair of opposite inwardly extending projections are ball bearing members.

5. The keyholder of claim 1 which includes a flexible sheath member secured to said rigid frame and extending loosely about the rigid frame, and releasable closure means carried by said flexible sheath member.

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MARVIN A. CHAMPION, *Primary Examiner.*

P. TEITELBAUM, *Assistant Examiner.*