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N. RINALDI

3,141,321

KEY RETAINING MEMBER

Filed April 12, 1963

Fig. 1.

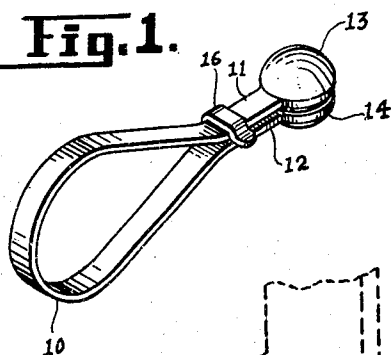


Fig. 2.

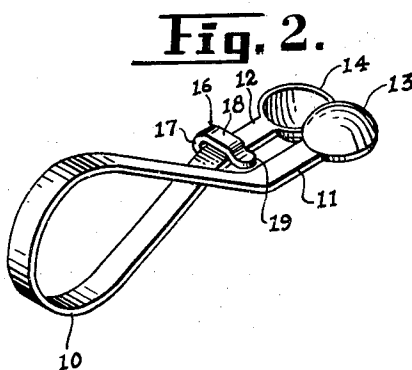


Fig. 3.

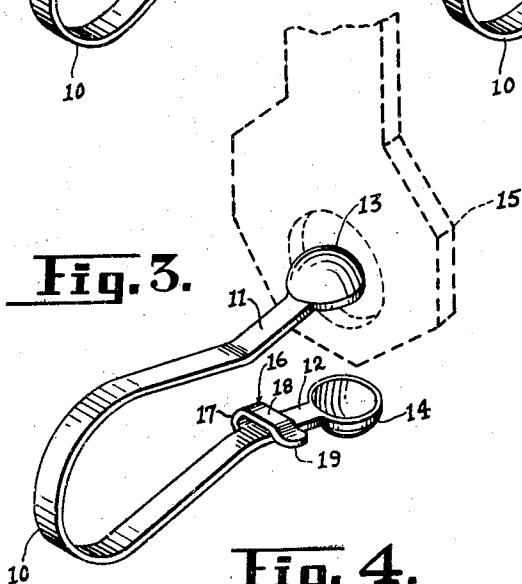


Fig. 5.

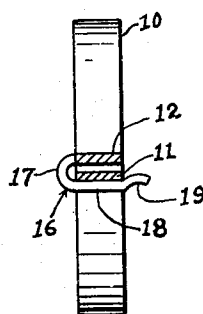
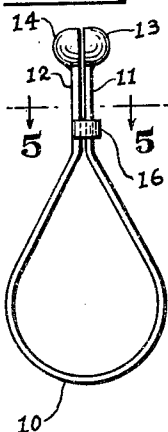


Fig. 4.



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3,141,321

KEY RETAINING MEMBER

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3 Claims. (Cl. 70-458)

This invention relates to key retaining members and more particularly to that type of retaining member having a loop for the key, and a ball-shaped head adapted to be engaged in a slotted support in a key case.

Among the disadvantages in key retaining members of this general type, is that the matching end portions which form the hemispherical head will slip sidewise with respect to one another and allow the member to fall out of its retaining slot which may result in the loss of the key. Some attempts have been made to overcome this fault by providing interengaging portions on the mating parts of the head or on the adjacent neck portions of the member, but none of them have been altogether reliable.

Most of the key holders in use at the present time rely on a substantial degree of spring pressure exerted by the loop to hold the mating parts of the head together. This has made it difficult to insert keys in the loop because the head and neck portions must be held separated by the fingers of one hand while the key is handled by the other hand. One proposal for overcoming this fault is to make the loop with crossed arms or sides, but this is a relatively difficult shape to form and has other well-known objections.

According to the present invention, both of these difficulties are overcome. The matching head portions and the adjacent neck-forming portions are sufficiently separated in the normal unstrained condition of the spring loop to permit easy insertion or removal of a key without substantial movement of the end portions. Furthermore, when the retaining member is closed, it is prevented from dislodgement by relatively simple means which prevents sidewise shifting of one of the head portions with respect to the other.

Other objects and advantages will hereinafter more fully appear.

In the accompanying drawing, I have shown for purpose of illustration, one embodiment which the invention may assume in practice. In the drawing:

FIG. 1 is a perspective view of the key retaining member in closed position;

FIG. 2 is a perspective view indicating the movement of the parts in opening or closing the member;

FIG. 3 is also a perspective showing the open or normal unstrained position of the loop, permitting easy insertion of a key;

FIG. 4 is a side elevation of the closed loop; and,

FIG. 5 is a cross-section on an enlarged scale taken on line 5-5 of FIG. 4.

My improved key retaining member may be described as a stirrup-shaped loop having a curved key-holding portion 10, side portions 11 and 12, and end portions in the form of matching hemispherical heads 13 and 14.

The member consists preferably of a piece of relatively stiff flat spring metal which in the normal unstrained condition as shown in FIG. 3, holds the end portions 13 and 14 as well as the side portions 11 and 12, sufficiently

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separated to permit easy insertion or removal of a key 15, which is indicated in dotted lines.

After the key is moved into the curved portion 10, the sides of the member are pressed toward each other while at the same time, the side 11 is shifted laterally with respect to the other side (as seen in FIG. 2). In this position, the side portion 11 can readily be slipped under a retaining hook 16, preferably formed integral with the side portion 12. As shown, the hook 16 is formed from the same flat metal piece and is connected to one edge of one side portion in spaced relation to the head-forming end portions through a bight 17. The hook has a flat portion 18 extending across said side portion and spaced from said side portion a distance slightly greater than the thickness of the flat metal, and terminates in an inwardly off-set detent 19 beyond the opposite edge of said side portion. This detent 19, which is adapted to snap over the edge of the side portion 11 whereby the two side portions as well as the head-forming end portions, will be held in close proximity to each other so that the matching head portions provide a generally ball-shaped head. The detent 19 of the hook will effectively prevent unintentional disengagement of the side portion 11 from the key.

As a result of my invention, it will be clear that a substantially improved key retaining member has been provided which is economical to manufacture and which accomplishes all of the objectives set forth.

What I claim is:

1. A key retaining member comprising a stirrup-shaped loop of relatively stiff spring metal having side portions adjacent the free end of the loop adapted to be brought closely adjacent each other to form a neck, matching end portions of substantially hemispherical form adapted when brought into proximity to one another to form a generally ball-shaped head, said loop in its normal unstrained condition holding said side and head portions sufficiently separated to permit insertion of a key without substantial movement of the end portions, and a retaining hook on one of said side portions in spaced relation to said hemispherical end portions and adapted to engage around a portion of the other of said side portions to hold said side and end portions in close proximity to each other.

2. A key retaining member as defined in claim 1 consisting of generally flat spring metal and wherein said retaining hook is integral with one side portion and extends from one edge across the member and having an intumed portion beyond the opposite edge of said side portion.

3. A key retaining member as defined in claim 1 consisting of generally a piece of flat spring metal and wherein said hook also formed from the same flat metal piece is connected to one edge of one side portion in spaced relation to the head-forming end portions through a bight, and having a flat portion extending across said side portion and spaced from said side portion a distance slightly greater than the thickness of the flat metal, and terminating in an inwardly off-set detent beyond the opposite edge of said side portion.

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