Nov. 3, 1953 C. E. MORRELL 2,657,568

KEY HANGER SUPPORT FOR KEY CASES

Filed May 17, 1951

Fig. 1.

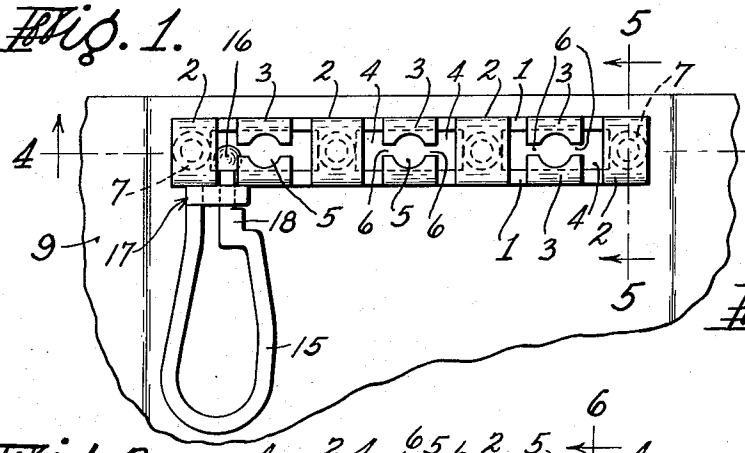


Fig. 5.

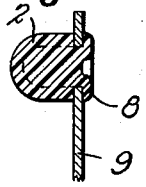


Fig. 2.

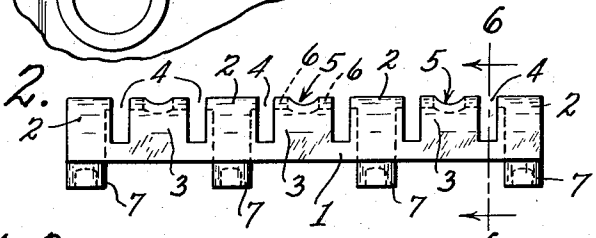


Fig. 3.

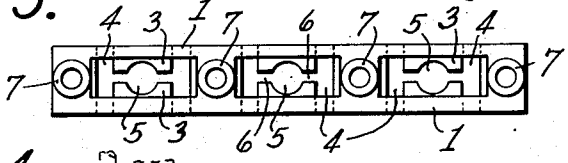


Fig. 6.

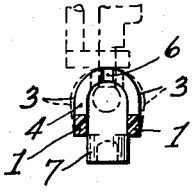


Fig. 4.

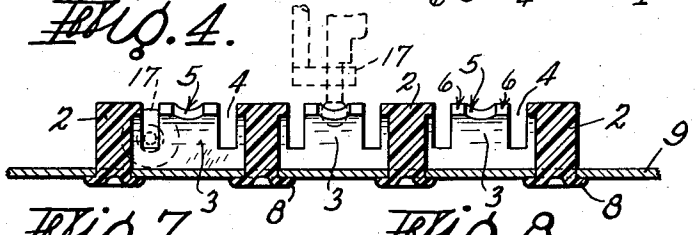


Fig. 7.

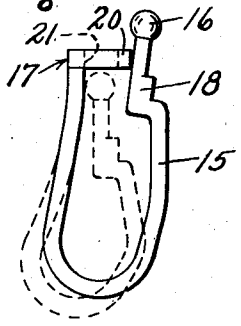


Fig. 8.

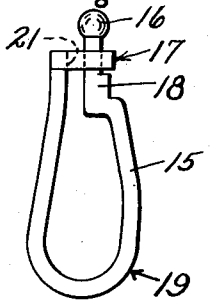
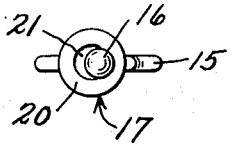


Fig. 9.



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KEY HANGER SUPPORT FOR KEY CASES

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4 Claims. (Cl. 70—456)

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This invention relates to an improvement in key hangers and key hanger supports adapted to be secured to key cases.

In the type of key hanger and support to which the present invention has reference the hangers, in the form of loops or hooks, are formed with shanks provided with enlarged heads. The supports are provided with one or more slots of less width than the heads of the hangers and into which the shanks of the hangers are introduced by way of enlarged openings through which the heads may pass.

Heretofore devices of this general character have been made up from parts stamped from metal. Various attempts have been made to provide structures for the purpose which could be molded or otherwise formed from organic plastic materials. In general these efforts have attempted to follow the prior practices employed with metal, that is the provision of spring actuated movable parts to control the attachment and detachment of the hangers to and from the support. These efforts have resulted in relatively bulky constructions which have not proved pratical for commercial use and have entailed the use of expensive molds and difficult molding operations. The advantages of appearance, durability and economy which the synthetic plastics possess have not therefore been made practically available.

It is a principal object of the present invention to provide a key hanger support construction which can be molded as one piece in a single molding operation.

A further object is to provide a construction, having the above advantages, in which the hangers may be easily and quickly attached to, or detached from, the support at the will of the user.

A further object, apart from making organic synthetic plastics available for its construction, is the provision of a key hanger support which can be made in one piece, and which will securely hold the hanger against accidental detachment while permitting easy intentional detachment.

Other and further objects residing in the details of the construction and arrangement of the parts of the key hanger support and in the form of the hanger will be made apparent in the following specification and claims.

In the accompanying drawings which show an illustrative embodiment of the invention:

Fig. 1 is a front view of a key case to which is secured a key hanger support embodying the invention with a key hanger embodying the invention attached thereto, parts of the cover of the case being broken away;

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Fig. 2 is a side view of the key hanger support of Fig. 1 prior to its attachment to the case;

Fig. 3 is a rear view of the hanger support;

Fig. 4 is a sectional view substantially on line 4—4 of Fig. 1;

Fig. 5 is a sectional view substantially on line 5—5 of Fig. 1;

Fig. 6 is a sectional view substantially on line 6—6 of Fig. 2 and showing in dotted line the manner of attaching a key hanger to the support;

Fig. 7 is a detail view of the key hanger opened to receive a key, an intermediate position of the parts in closing the hanger being shown in dotted lines;

Fig. 8 is a view similar to that of Fig. 7 but with the hanger closed; and

Fig. 9 is a top view of the hanger in closed position.

Referring to the drawings, the support is shown as comprising spaced side members 1 connected by spaced transverse members 2. Centered between the members 2 are pairs of opposed members 3, projecting from side members 1 and spaced from members 2 to provide transverse key hanger retaining slots 4 at each side of the members 3, the ends of the slots being closed by the side members 1. The free ends of members 3 are shaped to provide openings 5, enlarged as compared with the width of the slots 4 to permit passage of the head of a key hanger of the type above described. The openings 5 are connected to the adjacent slots 4 by slits 6 formed between the adjacent ends of members 3, which slits are narrower than the slots 4 so that the shanks of the key hangers cannot normally enter the slits either from the slots 4 or the openings 5. The opposed members or fingers 3 extending freely from the side members 1 are capable of being sprung apart, due to the resilience of the material from which the support is formed, to increase the effective width of the slits and permit passage of the shank of a key hanger in either direction between the openings 5 and either of the adjacent slots 4. Thus to insert a hanger in the support it is only necessary to introduce the head of the hanger through one of the enlarged openings 5 and, with the shank of the hanger positioned at the entrance to one of the slits 6, to press the hanger sidewise with sufficient force to cause the opposed parts or fingers 3 to separate, against the spring resistance of the material (Fig. 6), permitting the shank of the hanger to be moved along the slit 6 until it enters the adjacent slot 4. When the hanger enters the slot the members 3 spring back into place, confining

the hanger to the slot until it is forced back through the slit for removal through the enlarged opening.

Preferably and as shown, the openings 5 are positioned midway between the ends of the slots so that when the key hangers are at the ends of the slots 4, which is their normal position when enclosed in the case or swung outwardly thereof into operative position, their shanks are remote from the entrance to the slits 6 thus minimizing any chance of the hanger shanks being accidently forced into the slits.

The various members and parts of support as above described preferably are formed as portions of a body of a suitable organic synthetic plastic, molded as a single piece by injection molding or other suitable molding method. As shown, the members or portions 2 are solid and are provided with rivet forming projections 7 extending from the rear side of the support, which may be headed over by means of a heated member as shown at 8 to secure the support to the desired portion of a case 9 formed of any suitable material.

Figs. 7, 8 and 9 show a preferred form of key hanger. The hanger of the latter figures comprises a length of flexible material 15 provided at one end with a head 16 and at the other with a loop 17 through which the head 16 can be inserted or withdrawn by flexing the length of material as shown in dotted lines in Fig. 7. Preferably the end portion which carries the head 16 is also provided with a shoulder 18 of a size to prevent its passing through the opening in loop 17.

When the parts of the hanger are in the position shown in Fig. 7 a key (not shown) may be easily threaded over the head 16 onto the hanger after which the hanger is closed by passing the head 16 through the loop 17 as described, thus locking the key in the noose 19. The shoulder functions to prevent the noose being drawn tightly on the key or subjecting the material to too sharp a bend. Furthermore, as shown in Fig. 1, the shoulder 18 limits the extent to which the head and shank of the holder may enter the slots 4 or openings 5 of the support.

The structure of the loop shown permits it to be molded from a suitable synthetic organic plastic. The plastic is molded in substantially the form shown in Fig. 7 so that the material is in only slightly strained condition when the parts are in the position of Fig. 8. Preferably, and as shown, the loop 17 is formed as a projection 20 extending at approximately a right angle from the end of the noose, the projection being provided with a circular aperture 21 forming the loop through which the head 16 is passed.

"Nylon" and "Tenite" are suitable synthetic organic plastics from which the support and loop may be formed, but other plastic materials possessing similar qualities of toughness, flexibility and resilience may be employed.

What is claimed is:

1. A key hanger support for key cases which comprises spaced side members connected by two transverse members, opposed members projecting from the side members and positioned between and spaced from the transverse members to provide two transverse slots, one at each side of the opposed members, the side members closing the ends of the slots, the free ends of the opposed members being shaped to provide an enlarged opening, and the free ends of the opposed members being spaced from each other to form slits connecting the slots with said opening, the slits being of less width than the slots, the opposed members being resiliently separable to increase the effective width of the slits.

2. A key hanger support for key cases which comprises spaced side members connected by two transverse members, opposed members projecting from the side members and positioned between and spaced from the transverse members to provide two transverse slots, one at each side of the opposed members, the side members closing the ends of the slots, the free ends of the opposed members being shaped to provide an enlarged opening positioned substantially midway between the ends of the slots, and the free ends of the opposed members being spaced from each other to form slits connecting the slots with said opening, the slits being of less width than the slots, the opposed members being resiliently separable to increase the effective width of the slits.

3. A key hanger support for key cases which comprises an elongated body of organic synthetic plastic, said body including spaced side portions connected by two transverse portions, opposed portions projecting from the side portions and positioned between and spaced from the transverse portions to provide two transverse slots, one at each side of the opposed portions, the side portions closing the ends of the slots, the body being recessed to form a generally semi-cylindrical chamber beneath the opposed portions and opening to the rear face of the support, the free ends of the opposed portions being shaped to provide an enlarged opening and the free ends of the opposed members being spaced from each other to form slits connecting the slots with said opening, the slits being of less width than the slots, the opposed portions being resiliently separable to increase the effective width of the slits, and rivet forming projections extending from the rear of the body.

4. A key hanger support for key hangers having shanks with enlarged heads at the end of the shanks which comprises a chambered member formed with spaced transverse slots closed at their ends and of a width to accommodate the shank but not the head of a hanger, the portion of the wall of said chamber intermediate said slots being formed with an opening, slits connecting said opening with each adjacent slot, said slits with said opening dividing the said intermediate wall portion into opposed members, said slits being of less width than said slots, said opposed members being formed of resilient material to permit resilient separation of the said opposed members to permit passage of a hanger head through said opening and passage of a hanger shank along said slits and into said slots.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
2,197,217	Geller	Apr. 16, 1940
2,197,218	Geller	Apr. 16, 1940
2,201,850	Dawson, Jr.	May 21, 1940
2,201,851	Dawson, Jr.	May 21, 1940
2,421,492	Geller	June 3, 1947
2,550,135	Buckley	Apr. 24, 1951