Dec. 31, 1935. R. N. LUPFER 2,026,185

KEY SUPPORT

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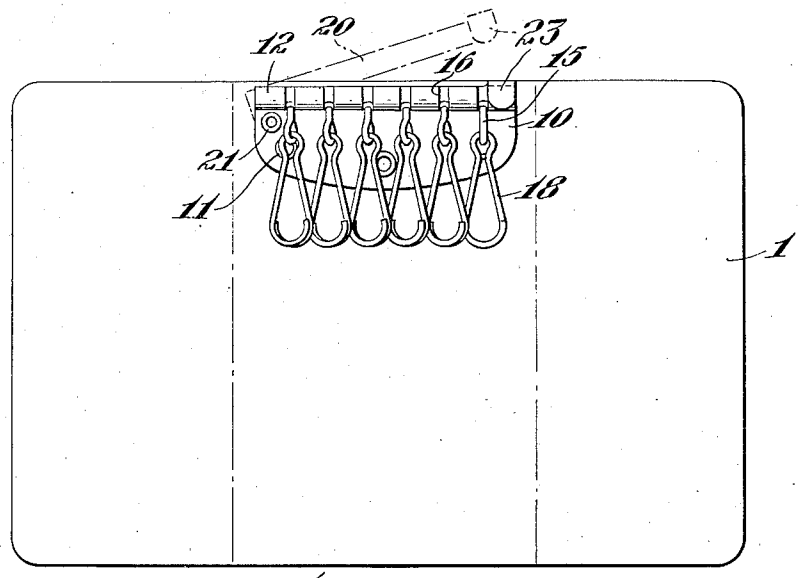


Fig. 1

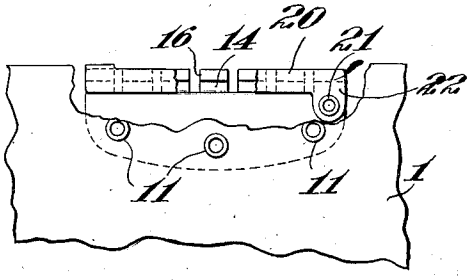


Fig. 2

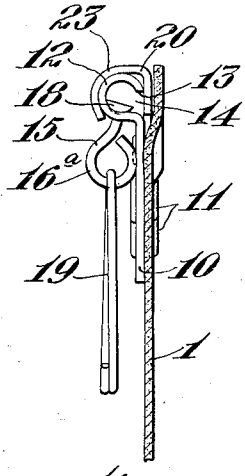


Fig. 3

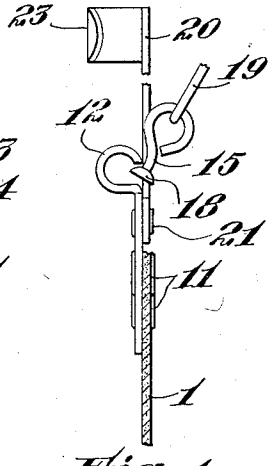


Fig. 4

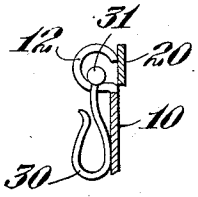


Fig. 5

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KEY SUPPORT

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7 Claims. (Cl. 150—40)

This invention relates to an improved key supporting arrangement particularly adapted to be employed in key cases, for example of the conventional leather type. More particularly the present invention affords an arrangement to facilitate the individual removal of key hangers from the support or case when desired. Often the user of a key case prefers to remove certain hangers with the associated keys so that only a few keys are retained with the case, thus permitting the latter to be more compact and more conveniently carried in a pocket or handbag. Furthermore, it is sometimes desirable to replace a broken or damaged hanger rather than discarding the entire case and support.

The present invention particularly affords a simple, inexpensive arrangement permitting the removal of any selected hanger when desired, but ordinarily arranged so that the hangers are securely retained upon the suport. To this end the present invention affords a supporting plate provided with recessed or slotted portions to receive the hanger supports or hangers, but arranged so that the hangers may be removed therefrom when a retaining bar is moved out of its normal position. Such a bar may conveniently be pivoted to the back of the supporting plate and may normally cover or close the open ends of the slots which receive the key hangers. A suitable retaining element may be associated with the end of the retaining bar to hold it in normal position but to permit its movement relative to the support. Preferably the retaining element may be in the form of an integral extension of the bar which affords a spring clip engaging one end of the support, while the opposite end of the bar may be pivotally connected to the opposite end of the support. Thus in its normal position the major portion of the bar may be concealed behind the support, the retaining clip, however, being visible and conveniently located for engagement by the finger or thumb of the user so that the bar may be swung to its inoperative position, whereupon a hanger may be removed or replaced as desired.

In the accompanying drawing,

Fig. 1 is a front elevational view of my improved key hanger assembly showing the same secured to a conventional enclosing case, the latter being in its open position and the retaining bar being shown in an optional position by dot and dash lines;

Fig. 2 is a rear elevation of a portion of the case and the hanger support with parts broken away and parts of the support shown in dotted lines;

Fig. 3 is an end elevation of the support and the upper part of the case shown in Fig. 1, a part of the case being shown in section;

Fig. 4 is a similar view with the retaining bar shown in its inoperative position and with a hanger support shown in the position it may occupy as it is being moved into or out of engagement with the supporting plate; and

Fig. 5 is a sectional view of an optional form of hanger assembly showing the manner in which this invention may be employed when a hanger is directly connected to the supporting plate.

The accompanying drawing may be referred to as presenting a preferred exemplification of the present invention, the numeral 1 designating a conventional key case which may be formed of leather or the like. This case is provided with an intermediate or body portion to which a supporting plate 10 is secured by fastening elements such as rivets 11, the case also having the conventional side portions or flaps which normally are fastened in overlapping position when the case is closed.

The plate 10 may be formed of a flat sheet metal blank shaped to provide a partially cylindrical or bead-like upper portion 12, the edge 13 of this portion of the metal, however, being spaced from the adjoining portion thereof so that a slot 14 is provided extending across the rear portion of the support adjoining the inner face of the case 1. The beaded portion 12 of the support is provided with circumferential slots 16 which have open rear ends communicating with the transverse slot 14 at the back of the support. Normally hanger supports (or hangers) may be received in the respective slots 16. Thus, as shown particularly in Figs. 1 and 3, each hanger support 15 may be formed from wire to provide an eye 16a, and a shank portion extending through a slot 16, the end of each wire being formed into enlarged head 18 which may have a face shaped to resemble the surface of a portion of a sphere and may engage the inner surface of the beaded portion 12 of the support. Thus a connection is provided permitting the convenient swinging movement of the hanger support in any direction relative to the supporting plate. The looped or eye portion 16a of each hanger support may engage the upper end of a key hanger 19 of any suitable type, such as a resilient, looped hanger of the type illustrated, which may readily receive a key.

In accordance with this invention, means is

provided normally to prevent the disengagement of a hanger support from the supporting plate while permitting the selected removal of any hanger support when desired. For this purpose a retaining bar 20 may be pivotally connected as by a rivet 21 to one end of the supporting plate 10. Preferably, as shown in Figs. 1 and 2, the bar 20 is located behind the upper or beaded portion of the supporting plate 10 so that it may be substantially concealed by the same when in its normal operative position. The bar 20 may conveniently be formed of a flat piece of metal having a short depending ear or lug 22 extending downwardly to the pivotal connection 21 and having an elongate planar body portion with an extent substantially equal to the width of the supporting plate 10. A lug at the end of the bar 20 may be bent outwardly and downwardly to provide a spring clip 23, as shown particularly in Figs. 3 and 4, this clip being arranged to engage the end section of beading 12 with a snap action. Thus when the retaining bar is in its normal position, its ends being held by the pivotal support 21 and the retaining element 23, its body portion is effective in substantially closing the transverse slot 14 at the back of the supporting plate. Accordingly the open ends of the slots 16 are substantially obstructed so that it is impossible to remove or replace a hanger support.

When it is desired to remove a hanger 19 from the assembly, the clip or retaining element 23 may be disengaged from the beading 12 and the bar 20 may then be swung upwardly at a suitable angle to uncover the transverse slot 14 and leave the end portions of the slots 16 unobstructed. Thus, for example, the bar may be swung upwardly to the position particularly illustrated in Fig. 4, whereupon the hanger support 15 may be swung upwardly over the beading 12 until its shank passes out of the open end of the corresponding slot 16 and its head 18 passes through the slot 14 at the back of the supporting plate.

It is furthermore evident that a hanger support may be introduced into a vacant or unoccupied slot 16 by following a similar procedure, i. e., by first swinging the retaining bar 20 to its inoperative position and then introducing the shank portion of the support in the open end of a slot 16 with the head 18 of the support passing through the slot 14; the hanger support may then be swung over the beading to its normal depending position, illustrated for example in Fig. 3. Thereupon the retaining bar 20 may be swung downwardly between the supporting plate 10 and the case 1, so that the clip 23 is snapped back into normal engagement with the beading 12.

A general arrangement of this character may also be employed when hanger supports are dispensed with and the hangers themselves directly engage the supporting plate. Thus Fig. 5 shows a sectional view of such an arrangement, wherein the hanger 30 may be in the form of a wire hook having a ball-like head portion 31 received in the beading portion 12 of a hanger support 10 similar to that already described. Such an assembly may be provided with a retaining bar 20 arranged in the manner already disclosed. Accordingly, when the bar 20 is swung to its inoperative position the slot at the rear of the support is uncovered so that the hook may be removed at the back of the support in a manner already described with reference to a hanger 15.

While, in the illustrated embodiments of the invention, I have shown the slots 16 communicating with a single transverse slot 14, it is evident that many of the advantages of this invention may be attained by providing the respective slots with individual enlarged portions through which the heads of the hanger supports may be removed but which are normally obstructed by the retaining bar.

It is evident that this arrangement affords simple means to permit the convenient removal of any selected hanger or hanger support from the supporting plate of a key hanger assembly. A device of this type may be conveniently manipulated merely by engaging the finger or thumb nail of the user with the clip 12 to swing the retainer to its inoperative position, whereupon the hanger or hanger support may be readily removed and the retaining bar swung back to its normal position so that the spring clip may again hold it in place. It is evident that the retaining bar 10 may be substantially concealed by the support aside from the clip 23 which overlies the end section of the beading between a slot 16 and the end of the plate and accordingly is quite inconspicuous. Thus a simple and neat appearing assembly may be provided.

I claim:

1. A key supporting assembly for a key case or the like, comprising a supporting plate having a beaded portion with a plurality of circumferential slots therein, said slots having portions arranged to permit the removal of the heads of hanger supports or hangers, a retaining bar, and a pivot connecting the bar to the plate, said bar normally obstructing said portions of the slots and being capable of being swung about the pivot and away from the plate to uncover said portions of the slots to permit the removal of a hanger.

2. A key supporting assembly for a key case or the like, comprising a supporting plate having a beaded portion with a plurality of circumferential slots therein, hanger supports having heads received in said beaded portion and shanks extending through said slots, said slots having portions arranged to permit the removal of the heads of the hanger supports, a retaining bar, and a pivot connecting the bar and the plate, said bar normally obstructing said portions of the slots and being capable of being swung away from the plate to uncover said portions of the slots to permit the removal of a hanger.

3. A key supporting assembly for a key case or the like, comprising a supporting plate having a beaded portion with a plurality of circumferential slots therein, said slots having ends arranged to permit the removal of the heads of hanger supports or hangers, a retaining bar, and a pivot connecting the bar to one end of the plate, said bar normally obstructing said ends of the slots and being capable of being swung about the pivot and away from the plate to uncover said ends of the slots to permit the removal of a hanger, and a retaining element holding the bar against swinging from its normal position.

4. A key supporting assembly for a key case or the like, comprising a supporting plate having a beaded portion with a plurality of circumferential slots therein, said slots having ends arranged to permit the removal of the heads of hanger supports or hangers, a retaining bar, and a pivot connecting the bar to one end of the plate, said bar normally obstructing said ends of the slots and being capable of being swung about the pivot to uncover said ends of the slots to permit the removal of a hanger, and a clip upon the bar

engageable with the end of the beaded portion and holding the bar against swinging from its normal position.

5. A key supporting assembly for a key case or the like, comprising a supporting plate having a planar body portion and a beaded edge portion arranged so that a transverse slot is provided between the edge of the beaded portion and the adjoining part of the planar body portion, said beaded portion being provided with a plurality of circumferential slots to receive hangers or hanger supports, said circumferential slots having open ends communicating with said transverse slot, and a retaining bar pivotally connected to one end of the supporting plate and capable of normally being positioned to obstruct the open ends of the circumferential slots.

6. A key supporting assembly for a key case or the like, comprising a supporting plate having a planar body portion and a beaded edge portion arranged so that a transverse slot is provided between the edge of the beaded portion and the adjoining part of the planar body portion, said beaded portion being provided with a plurality of circumferential slots to receive hangers or hanger supports, said circumferential slots having open ends communicating with said transverse slot, a retaining bar pivotally connected to one end of the supporting plate and capable of normally being positioned substantially to close the transverse slot and to obstruct the open ends of the plurality of slots, and a retaining element associated with the end of the retaining bar opposite its pivotal connection with the supporting plate so that the retaining bar may normally be held in its operative position.

7. A key supporting assembly for a key case or the like, comprising a supporting plate having a beaded portion with a plurality of slots dividing it into short sections, said slots having portions through which key hanger supports may be removed, a retaining bar pivotally connected to said plate and substantially concealed by said beaded portion, an integral extension of said bar providing a spring clip normally fitting over the section of said beaded portion at the end of the plate opposite the pivotal connection, said clip being capable of disengagement from said section to permit the bar to swing out of normal position to uncover said portions of the slots.

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