Nov. 20, 1951 H. R. SEGAL 2,575,472

KEY HOLDER

Filed Jan. 18, 1949

Fig. 1.

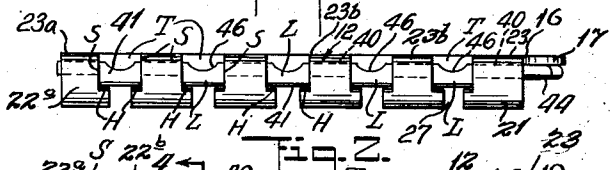


Fig. 2.

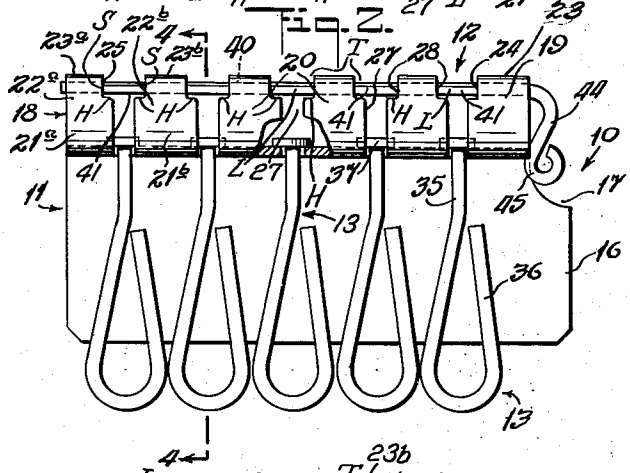


Fig. 3.

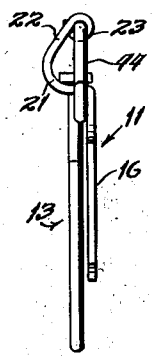
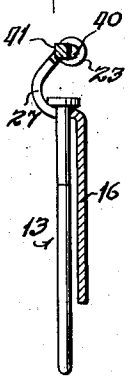


Fig. 4.



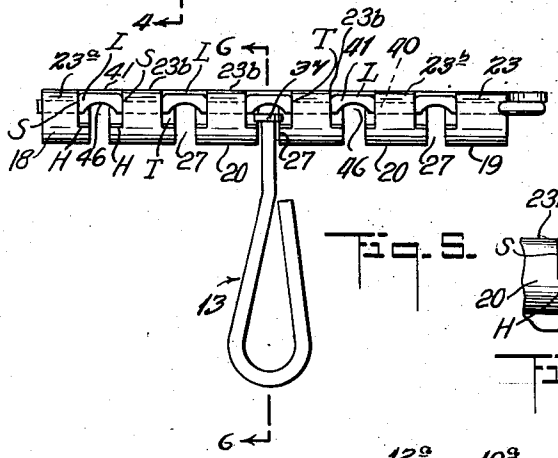


Fig. 5.

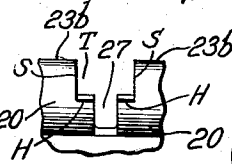


Fig. 6.

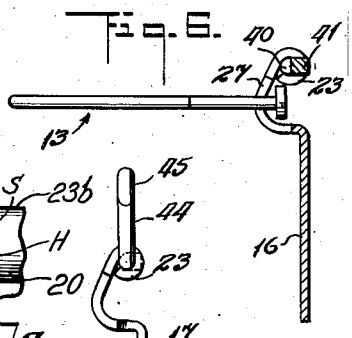


Fig. 7a.

Fig. 7.

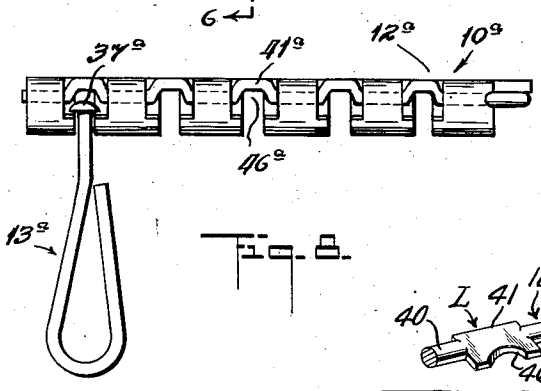


Fig. 8.

Fig. 7b.

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KEY HOLDER

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3 Claims. (Cl. 70—456)

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This invention relates to keyholders. It is particularly directed to a keyholder including a plurality of removable suspended or swinging key carrying loops, each of which may carry one or more keys.

Keyholders of such general character have been made with a plurality of parallel slots and with key carrying loops having shanks passing through the slots and heads engaging the back of the slotted holder, to suspend the loops from the holder and yet let them swing out for use. A longitudinally movable pin was arranged to close up all the slots to prevent loops from being disengaged from the holder. In order to disengage the loops from the holder it was necessary to pull out the pin longitudinally sufficiently to uncover the slot for the key loop it is desired to remove. With such construction, the pin is pulled out, the key loops are successively released, and it sometimes is necessary to release all of the key loops in order to remove the last one in the row. The manipulation of the pin in such keyholders is relatively difficult.

It is, therefore, an object of the present invention to provide a keyholder of the character described comprising a supporting plate formed with slots having enlarged portions through which the heads of the key loops may be passed for removing the loops, and a crank-shaft mounted for rotation on the supporting plate, and provided with a handle at one end and having offset portions adapted, in one angular position of the crankshaft to cover the enlarged portions of the slots to prevent the key loops from being removed, and said crankshaft being rotatable to another angular position to move the offset portions to uncover the enlarged portions of the slots sufficiently to permit the heads of the key carrying loops to be moved therethrough, for removing the key loops.

Yet another object of this invention is to provide a keyholder of the character described so constructed and arranged that a simple rotary movement of a shaft in one direction will release the key carrying loops, and rotary movement of the shaft in an opposite direction will retain the key carrying loops against removal.

Yet another object of this invention is to provide a strong, compact, and durable keyholder of the character described, which shall be relatively inexpensive to manufacture, easy to manipulate, and which shall yet be practical and efficient to a high degree in use.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

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The invention accordingly consists in the features of construction, combinations of elements, and arrangement of parts, which will be exemplified in the construction hereinafter described, and of which the scope of invention will be indicated in the following claims.

In the accompanying drawings in which is shown various illustrative embodiments of this invention,

Fig. 1 is a top plan view of a keyholder embodying the invention;

Fig. 2 is a front elevational view thereof, with parts broken away and in cross-section;

Fig. 3 is an end elevational view of the structure shown in Fig. 2;

Fig. 4 is a cross-sectional view taken on line 4—4 of Fig. 2;

Fig. 5 is a view similar to Fig. 1, but showing the crankshaft in position for releasing the key carrying loops;

Fig. 6 is a cross-sectional view taken on line 6—6 of Fig. 5;

Fig. 7 is an end elevational view of the keyholder shown in Fig. 5;

Fig. 7*a* is a fragmentary and enlarged view of Fig. 2;

Fig. 7*b* is a fragmentary perspective view of the locking rod;

Fig. 8 is a figure similar to Fig. 1, but illustrating a modified construction.

Referring now in detail to the drawing, 10 designates a keyholder embodying the invention. Said keyholder comprises a supporting plate 11, a locking crankshaft or rod 12 mounted for rotation thereon, and a plurality of key carrying loops or hooks 13 swingably mounted on the supporting plate.

The supporting plate 11 comprises a flat wall 16 formed with a curved notch 17 in the upper right hand corner, looking at Fig. 2 of the drawing. Extending forwardly from the upper end of the back wall 16 are end fingers 18 and 19, and a plurality of intermediate fingers 20. The finger 19 comprises a forwardly and upwardly curved portion 21 from which extends a rearwardly and upwardly inclined portion 22 terminating in an eye 23. The eye 23 is located above the top of wall 16. The right end edge of the finger 19 is aligned with the left end of the notch 17, as shown in Fig. 2 of the drawing. The upper end of the inclined portion 22 and the eye 23 of the finger 19 are cut away, as at 24 at its left side, looking at Fig. 2, for the purpose hereinafter appearing.

The finger 18 has its left end edge in alignment

with the left edge of the wall 16. The finger 18 is in alignment with the finger 19 as well as with the fingers 20. Thus, finger 18 likewise has a forwardly and upwardly curved portion 21a from which extends a rearwardly and upwardly inclined portion 22a terminating in an eye 23a. The upper right hand corner of finger 18 is cut away, as at 25, for the purpose hereinafter appearing. The intermediate fingers 20, likewise, each have forwardly and upwardly curved portions 21b from which extend upwardly and rearwardly inclined portions 22b terminating in eyes 23b. Between the fingers 18, 19 and 20 are slots 27. The upper corners of the intermediate fingers 20 are notched or cut away, as at 28. Thus, the cut-aways 28, 24 between the finger 19 and the finger 20 adjacent thereto, and cut-aways 28 between adjacent fingers 20 and the cut-aways 25 and 28 between finger 18 and the finger 20 adjacent thereto, form enlarged mouths or throat portions T at the upper ends of the slots 27.

The key carrying loops or hooks 13 each comprise a shank 35, a bent back looped portion 36, and an enlarged anchoring head 37 at the upper end of each shank. As shown in the drawing, the shank 35 of each loop 13 passes through one of the slots 27. The shanks 35 and the bent back portions 36 normally lie against the front of wall 16 and the heads 37 engage the inner surfaces of the curved portions of the fingers 18, 19, and 20. Thus, the key carrying loops can swing within the slots 27, but are suspended by means of the enlarged heads 37. Said loops may be swung forwardly and upwardly for use, moving along slots 27 but are removably sustained by the supporting plate.

The locking member 12 comprises releasable means for preventing removal of the key carrying loops 13, while permitting said loops to swing. To this end, the locking crankshaft 12 has cylindrical portions 40 journalled in the aligned eyes or bearings 23, 23a and 23b. Between the portions 40 and integral with shaft or rod 12 are offset portions 41 or lugs L adapted to be removably received in the enlarged upper ends or throats of the slots 27 in one position of the crankshaft, thereby simultaneously closing the throats or enlarged upper ends of the slots 27 to prevent the heads 37 of the hooks from moving through the throats of these slots, and thereby retaining the key carrying loops or hooks on the supporting plate 11. At one end of the crankshaft 12 is an offset handle 44 having a lower curved portion 45 adapted to contact the front of the plate 16 adjacent the upper end of the notch 17 when the crankshaft is in locking position. Thus, when the crankshaft is in locking position, the handle 44 projects downwardly, whereas, the offset portions 41 extend substantially at right angles to the handle and project forwardly, looking at Fig. 2 of the drawing.

Fingers 18, 19 and 20 constitute arcuate and spaced and overhanging bowed portions and eyes 23, 23a, and 23b thereof are alined bearings in the form of spaced hollow beads rotatably guiding rod 12, and more specifically the cylindrical stub portions 40 integral with and intervening spaced lugs L thereof.

The cut away portions 24, 25 and companion similar portions 28 in fact characterizing enlarged throats T in communication with respective slots 27. Each throat T embodies the spaced parallel sides S and the horizontally alined but spaced shoulders or stops H.

Portions 41 of lugs L are approximately rectangular in shape and rotatably guided between spaced eyes as 23a and 23b although they slightly project beyond stub portions 40 of locking rod 12.

Interrupting each lug L is a relief and reentrant notch 46 which in the opened relation of the locking rod (Fig. 5) permits heads 37 of hooks 13 to be withdrawn from throats T.

Lugs L straddle ears as 23b and cooperate therewith to prevent longitudinal displacement of locking rod 12 which however is rotatably mounted in alined bearings 23, 23a and 23b.

With locking rod 12 "closed" as shown in Fig. 2 lugs 41 are contiguous to seats or stops H, thus bridging slot 27 to prevent removal of hooks 13 out of the latter. If rod 12 be rotated 180° to the position shown in Fig. 5, notches 46 are arranged above slots 27, permitting heads 37 to be lifted out of slots 27 and through throats T to be completely clear of the key plate or holder.

Heads 37 are wider than slots 27 and the latter are narrower than throats T. Consequently in the "open" relation of the locking rod, the keyhooks or key sustaining means 13 can be readily removed through and out of throats T of the keyholder or key retainer.

In Fig. 8 there is shown a keyholder 10a embodying the invention and illustrating a modified construction. The keyholder 10a is similar to the keyholder 10, with the exception that the crankshaft 12a is made of a single piece of wire and the offset portions 41a are pressed by a die or otherwise to one side, to thereby form notches 46a. Furthermore, the heads 37a of the key carrying loops 13a may have rounded tops instead of flat tops, as shown in Fig. 8.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention I claim as new and desire to protect by Letters Patent of the United States:

1. In a key holder for removably supporting key sustaining means each provided with an enlarged head, a plate having at its upper part a plurality of bowed portions defining spaced slots for receiving said key sustaining means but narrower than said heads, hollow beaded means defining alined and spaced bearings at the upper parts of said bowed portions and enlarged throats wider than said heads and slots and communicating with the latter, a rod having spaced lugs wider than said slots to preclude removal of said sustaining means out of the latter and interposed between said bearings in said throats and substantially coextensive with the widths of the latter, said rod having cylindrical portions journalled in said bearings and rotatably guided by the latter, said lugs having notches for aligning with said slots on rotation of said rod to permit removal of said sustaining means out of said slots and through said throats, and manipulator means carried by said rod.

2. In a key holder for removably supporting key sustaining means each provided with an enlarged head, a plate having at its upper part a plurality of bowed portions defining spaced slots for receiving said key sustaining means but narrower than

said heads, hollow beaded means defining aligned and spaced bearings at the upper parts of said bowed portions and enlarged throats wider than said heads and slots and communicating with the latter and defining spaced vertical sides and horizontal aligned and spaced shoulders, a rod having spaced lugs interposed between said sides and having means for bridging said slots contiguous to said shoulders to preclude the removal of said sustaining means out of said slots, said rod having cylindrical portions journalled in said bearings and rotatably guided by the latter, said lugs having notches for aligning with said slots on rotation of said rod to permit removal of said sustaining means out of said slots and through said throats, and manipulator means carried by said rod.

3. In a key holder for removably supporting key sustaining means each provided with an enlarged head, a plate having at its upper part a plurality of bowed portions defining spaced slots for receiving said key sustaining means but narrower than said heads, hollow beaded means defining aligned and spaced bearings at the upper parts of said portions and enlarged throats wider than said heads and slots and communicating with the latter and defining spaced vertical sides and horizontally alined and spaced shoulders, a

rod having spaced lugs closely but movably interposed between said sides and having overhanging means for bridging said slots contiguous to said shoulders to preclude the removal of said sustaining means out said slots and through said throats, said rod having cylindrical portions journalled in said bearings and rotatably guided by the latter, said lugs having other overhanging means including notches for aligning with said slots on rotation of said rod to permit removal of said sustaining means out of said slots and through said throats, and manipulator means carried by said rod, said lugs and sides cooperating to prevent longitudinal displacement of said rod relative to said holder.

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