May 27, 1958 R. M. STARRETT 2,836,053

KEY CONTAINER

Filed March 15, 1955

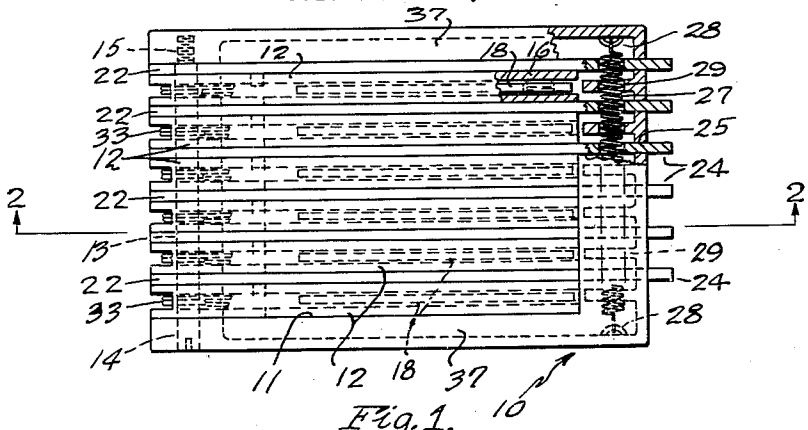


Fig. 1.

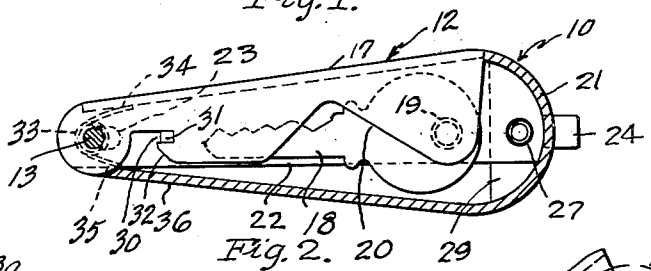


Fig. 2.

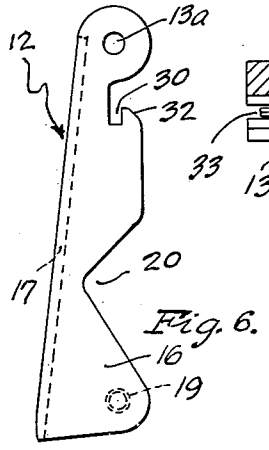


Fig. 6.

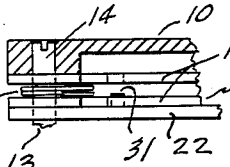


Fig. 4.

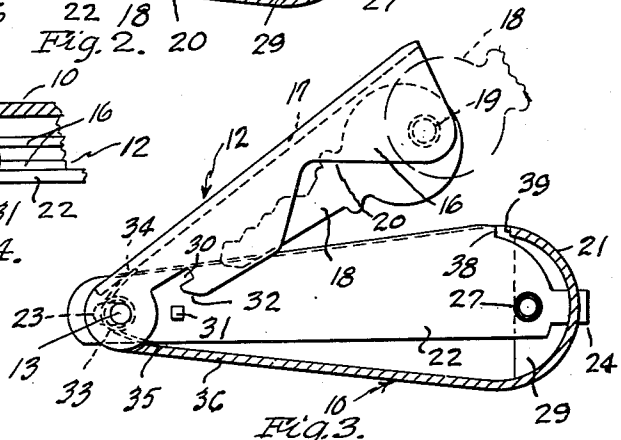


Fig. 3.

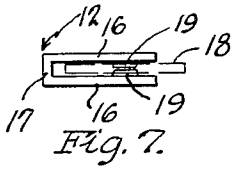


Fig. 7.

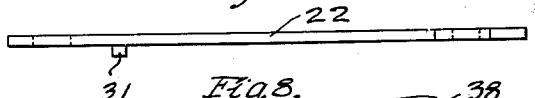


Fig. 8.

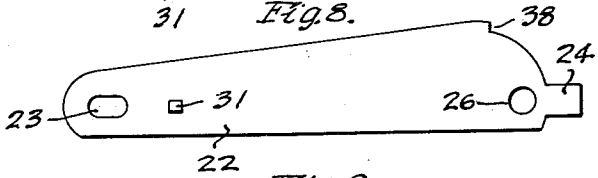


Fig. 9.

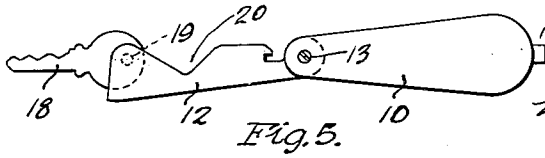


Fig. 5.

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2,836,053

Patented May 27, 1958

2,836,053

KEY CONTAINER

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Application March 15, 1955, Serial No. 494,520

5 Claims. (Cl. 70—456)

This invention relates to a key container, and has for an object to provide a device for holding a plurality of keys in such a way that any individual key may be easily selected and shifted from an inoperative or retracted position within a casing or holder to a position for use, and then after use may be easily and quickly shifted back to its inoperative position in the casing or holder.

Another object is to provide a device of this character in which the container comprises a body or casing in which are mounted a plurality of holders each individually shiftable from a retracted position in the casing to a position outside the casing, and which holder is provided with means for mounting a key shiftable to an inoperative position within the holder to an extended position for use, and there is a manually operable release catch for each holder to maintain it normally locked in a retracted position within the casing or housing, including a manually operable means for releasing each individual catch so that any desired key holder may be released to permit selection of any particular key for use.

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

In this drawing:

Fig. 1 is a top plan view of a form of the device with a portion broken away to more clearly show the construction;

Fig. 2 is a longitudinal section substantially on line 2—2 of Fig. 1;

Fig. 3 is a similar section showing one of the holders shifted part way out of the casing;

Fig. 4 is a detail section of a portion of the casing at one end and showing the means for mounting a holder, looking toward the bottom of Fig. 2;

Fig. 5 is a side elevation showing the holder and key extended into operative position for use of the key;

Fig. 6 is a side view of one of the key holders;

Fig. 7 is an end view looking toward the bottom of Fig. 6;

Fig. 8 is an edge view of one of the releasable catches for the holders, and

Fig. 9 is a side view thereof.

The form of the device shown by way of example comprises a housing or casing **10** of suitable material, which may be metal or plastic, for example, and comprises a hollow construction open at the top by a substantially rectangular opening **11** extending through one end of the casing, in this case the left hand end as viewed in Figs. 1 and 2. Mounted in the casing is a plurality of key holders **12**, and they are so mounted that they are normally held in a retracted position within the casing and individually shiftable from this position to a position outside the casing where a key mounted in each holder may be exposed for use. In the arrangement shown each holder **12** is pivoted at one end of the casing, and a convenient and satisfactory way is by means of a transverse hinge pin or shaft **13** extending transversely of the casing and supported at its opposite ends in the opposite side walls of the casing, as indicated at **14** and **15**, and threaded into the casing at one end as indicated at **15**. The holder may be of different forms, but is

preferably of substantially U-shape as shown in Figs. 6 and 7, with opposite side walls **16** connected by a transverse wall **17**. The side walls are spaced sufficiently to receive a lock key **18**, and this key is preferably pivotally mounted in the holder by means of the usual opening in the key and by suitable pivot means cooperating therewith, such, for example, as pivot lugs **19** on the inner sides of the opposite side walls **16** and seating in the opening in the key. The side walls of the holder preferably have sufficient spring or resilient action to separate or yield laterally to permit insertion of the key between them and then to frictionally grip opposite sides of the key, either by the side walls themselves or the tapered lugs **19** frictionally engaging the sides of the opening in the key to thus frictionally retain the key in the holder. The side walls **16** are cut away, however, as shown at **20**, to expose sufficient of the key to permit it to be gripped between a thumb and finger, for example, to swing it from its position in the holder to a position outside the holder for use.

At the opposite end from the pivot pin **13** the housing or casing has a preferably rounded end wall **21**, and means is provided in the casing for releasably retaining the key holders **12** in their retracted position in the casing, as indicated in Figs. 1 and 2. This catch may be of various forms, but a satisfactory and effective form, as shown, comprises a slide **22** in the form of an elongated plate, one mounted at one side of each of the key holders **12** and each having at one end an elongated slot **23** through which extends the pivot pin **13**, thus permitting this catch to slide on this pin. At its opposite end the catch has a lug **24** extending through and slidably mounted in a slot **25** in the curved end wall **21** of the casing, and projects therefrom as shown in Figs. 1, 2 and 3, whereby it is accessible for operation by pressure of a thumb or finger or any individual catch. Each catch has a transverse opening **26** adjacent this end of the catch through which passes a coil spring **27** secured at its opposite ends **28** to the opposite side walls of the casing and supported between each slide by an intermediate cross wall or partition **29** within the curved end wall **21** of the casing. Thus this spring is supported on each of the opposite sides of each of the slides or catches **22**, and in effect forms an individually supported spring for each catch or slide to normally retain it in its holding or locking position, which is the position of Figs. 1 and 2, and permits this catch or slide to be shifted to the left or into position to release the holder held by each individual catch, as indicated in Fig. 3. For locking each holder in its retracted position it is provided with a notch **30** in its side wall and the catch or slide **22** is provided with a lug **31** projecting from one side thereof and adapted to seat in the notch **30**, as shown in Fig. 2, to secure the key holder in its retracted or folded position within the casing. This notch faces toward the left as viewed in Figs. 2 and 3, and therefore when the catch **22** is shifted to the left by pressing inwardly on the lug **24** the lug **31** is shifted out of the notch **30** and releases the holder. The edge of the side wall of the holder at the outer side of the recess may be inclined as indicated at **32** to have a camming action on the lug **31** to shift the catch **22** to the left against action of the spring **27** when the holder is shifted from the position outside the casing as shown in Fig. 3, to its normal retracted position in the casing, after which the spring **27** will shift the catch **22** to the right to shift the lug **31** into the notch or recess **30** and lock the holder within the casing.

A spring is provided to shift each individual holder from its position within the casing to a position outside the casing when its holding catch is released. A convenient and simple form is a wire spring **33** located be-

tween the side walls of the holder 12 at one end thereof and having one or more coils around the hinge pin 13 with its opposite free ends 34 and 35 engaging the cross wall 17 of the holder and the bottom wall 36 of the casing respectively, to thus tend to shift the holder from its retracted position in the casing to a position outside the casing as shwn in Fig. 3. This need not be sufficient to swing the holder to full operative position outside the casing or housing, but it is sufficient if it shifts it out sufficiently to permit it to be readily gripped by the user for swinging it to the operative position. As shown in Fig. 1, the series of holders 12 are pivoted side by side on the transverse pivot pin 13 at one side of each holder, and therefore between adjacent holders, the slidable catch 22 is mounted. This catch and the holders are of a width so that when in the retracted or closed position their top edges are in the plane of the top surfaces 37 of the opposite side walls of the housing and fill the opening 11 in this wall to thus provide with the end walls a smooth top wall for the housing or casing, and the top edge of the catch slide 22 may be provided with a stop shoulder 38 to engage the top edge 39 of the curved end wall 21 of the casing.

The operation is as follows: As previously indicated, the normal or closed position is shown in Figs. 1 and 2 with the key folded into its individual holder and the holders all swung to their retracted positions within the housing and locked therein by the catches 22 by means of the lugs 31 of each catch seating in the notch or recess 30 in each key holder, and retained therein by the spring 27. If the operator wishes to use any individual key he presses inwardly on the proper lug 24 for that particular key, forcing the catch slide 22 inwardly and shifting the lug 31 on that slide from its notch 30 in the corresponding key holder. This releases the key holder and permits its spring 33 to swing this holder about its pivot 13 from its position within the housing to a position outside, as indicated in Fig. 3. The operator may then swing this holder as far away from this position as he wishes for use of the key, as, for example, to a position substantially in alignment with the housing as shown in Fig. 5. The key may be readily swung from its position within its holder by gripping it through the notches 20 and swinging it to an operative position outside the holder, as shown in Fig. 5 and broken lines in Fig. 3. To return the key to the selector housing, these operations are naturally reversed, the key being swung to its inoperative position within the holder and then the holder swung to its retracted position within the housing, where it will be automatically locked in place by its catch 22, this catch being shifted during its movement by camming action of the inclined edge 32 on the lug 31 to permit the holder to move to its retracted position, after which the spring 27 shifts the catch to carry lug 31 into the recess 32 to lock the holder and the key therein in its retracted position within the housing.

It will be clear from the above that the keys are effectively enclosed and protected within the housing, and that each key is individually mounted and each is individually shiftable from its inoperative or retracted position to its exposed or operative position, without in any way disturbing the other keys, and that each individual key can be so selected for use without interference from any of the other keys, by the operator merely pushing or depressing the corresponding manually operable lug 24.

Having thus set forth the nature of my invention, I claim:

1. A key container comprising a casing open at the top, a plurality of key holders pivotally mounted in the casing and each individually swingable about its pivot from a retracted position in the casing to a position outside the casing, each holder including side walls to receive a key between them and a transverse edge wall lying in the casing opening when the holder is in it retracted position, means in each holder for pivotally mounting a key therein to swing from an inoperative position in the holder between the side walls to an extended operative position, and a releasable catch for each holder to retain it in the casing and including a manually operable means for releasing each catch.

2. A key container comprising a casing having an opening in a wall thereof, a plurality of key holders pivotally mounted side by side in the casing and each swingable about its pivot through said opening independently of each of the other holders from a retracted position in the casing to a position extending outwardly therefrom, each holder comprising spaced side walls and a connecting top wall at one edge adapted to lie in the opening in the casing, and means for mounting a key between the side walls to shift from an inoperative position in the holder to an extended operative position, and a manually releasable catch for each holder to lock it in its retracted position in the casing.

3. A key container comprising a casing having spaced side walls, a connecting end wall, a bottom wall and a top wall provided with a rectangular opening, a plurality of key holders arranged side by side in the casing and pivoted at one end on a transverse pivot pin to swing through the opening from a retracted position in the casing to a position extending outwardly therefrom, each holder provided with means for pivotally mounting a key in the holder to swing from an inoperative position therein to an extended operative position, said holders including walls at one edge to lie in substantially the plane of the top wall of the casing to fill the opening in this wall, and a manually operable releasable catch for each holder to retain it in its retracted position in the casing including an operative lug extending through the end wall.

4. A key container comprising a casing, a plurality of key holders pivotally mounted side by side in the casing and each swingable about its pivot independently of each of the other holders from a retracted position in the casing to a position extending outwardly therefrom, each holder being substantially U-shape in cross section including spaced side walls and a connecting cross wall, means on the side walls for pivotally mounting a key in each holder to swing from an inoperative position in the holder to an operative position extending therefrom, a manually operable releasable catch for each holder comprising a longitudinally slidable member at one side of the holder provided with a lug to seat in a notch in a side wall of the holder to retain this holder in the retracted position in the casing, a spring yieldably shifting said member to retain the lug in the recess, and manual means for shifting the member against action of the spring to release the holder.

5. A key container comprising a casing having spaced side walls and a top wall provided with a rectangular opening, a plurality of key holders arranged side by side in the casing and each pivoted at one end to swing through the opening from a retracted position in the casing to a position extending outwardly therefrom, each holder provided with means for pivotally mounting a key in the holder to swing from an inoperative position therein to an extended operative position, said holders including walls at one edge to lie in substantially the plane of the top wall of the casing in the opening in this wall to fill this opening, and a manually operable releasable catch for each holder to retain it in its retracted position in the casing.

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