Oct. 2, 1934. H. R. SEGAL 1,975,334

KEY RETAINER

Filed March 8, 1932

Fig. 1

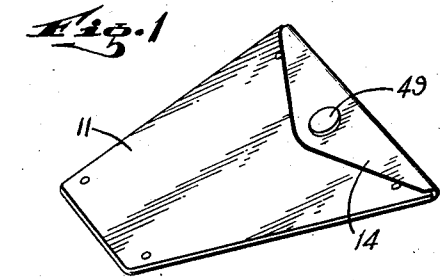


Fig. 2

Fig. 3

Fig. 4

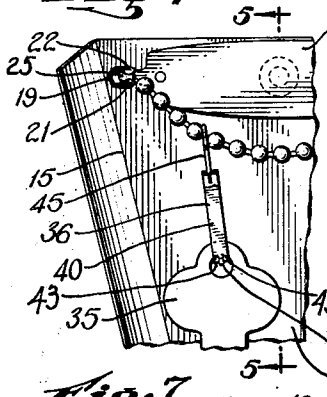


Fig. 5

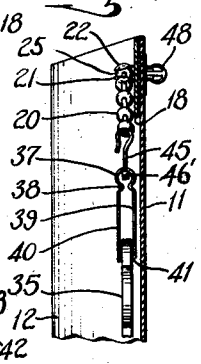


Fig. 6

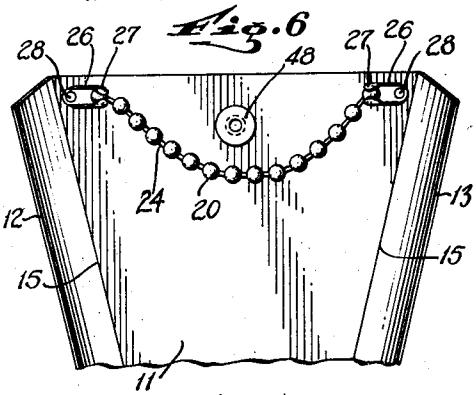


Fig. 7

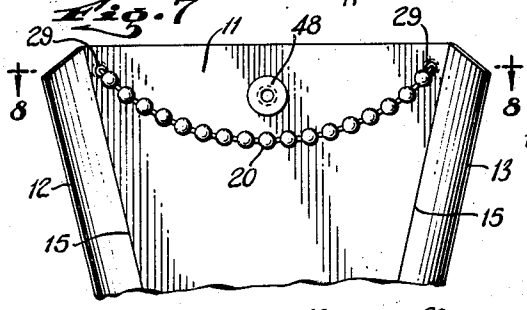


Fig. 9

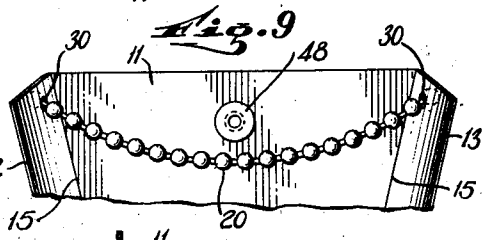


Fig. 10

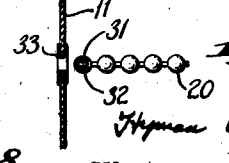
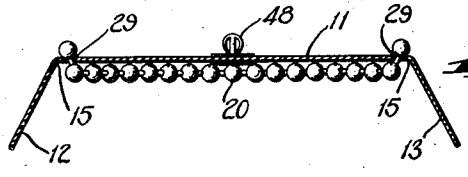


Fig. 8



INVENTOR.
Hyman R. Segal
BY
ATTORNEY.

Patented Oct. 2, 1934 1,975,334

UNITED STATES PATENT OFFICE

1,975,334

KEY RETAINER

Hyman R. Segal, New York, N. Y.

Application March 8, 1932, Serial No. 597,545

4 Claims. (Cl. 150—40)

The subject matter of this invention is a key retainer more particularly adapted to hold a plurality of keys in a relatively small compartment of a casing in which the plurality of keys are so arranged as to occupy a relatively minimum space thereof.

More particularly the present invention pertains to improvements in a key retainer and has as one of its objects to provide a construction comprising a casing having front and rear walls disposed in juxtaposition with their contracted portions swingably connected and their expanded portions disconnectibly associated and as another object the invention comprehends a key retaining device which may be quickly opened whereby access may be had to the retained keys.

Broadly speaking, the invention aims to provide a key holding device having its casing of pliable material and of a size small enough to be carried about by a person in a small clothing pocket or in a hand bag, the casing being adapted to sustain a chain from which several keys or other small articles are suspended.

The invention has for a further object the provision of a key retainer of the character above referred to wherein the chain is removably connected to a reinforcing member secured to one wall of the casing, which reinforcing member embodies clasp means for disconnectibly embracing the terminals of the chain.

It is a particular object of the invention to provide one wall of the casing with foldable sides adapted to be swung and overlap the inner marginal portions of the aforementioned wall and parts of the keys to prevent the latter from slipping in part or in whole out of the casing.

A further object comprehends means to permit the keys which are sustained by the chain to lie flat and against an inner face of the casing so as to occupy a relatively minimum space thereof, which means comprises a one piece resilient member having interlocking parts for removably supporting a key, the member being swivelled to a hook shaped element which in turn is mounted on and guarded by a restricted part of the chain.

Another object of the invention is to removably mount the chain on spaced clasps which are secured to an inner face of the casing.

In a more specific aspect, the invention is concerned with removably mounting the chain to the swingable sides of the casing.

In a further aspect of the invention the side wings of the casing are provided with a ferrule or the like to which resilient terminals of the chain are removably connected.

And still other objects, features and advantages of my invention are to improve generally the simplicity and efficiency of key retainers of the character alluded to and to provide a device for holding a plurality of keys in a relatively small space and of the kind which is durable, and reliable in operation and economical to manufacture.

The invention accordingly comprises the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application thereof will be indicated in the appended claims.

For a clearer understanding of the invention attention is directed to embodiments shown in the accompanying drawing in which:—

Fig. 1 is a perspective view of a key retainer according to the invention, illustrating the casing closed.

Fig. 2 is an enlarged perspective view of the key retainer with the casing open.

Fig. 3 is a section taken on the line 3—3 Fig. 2.

Fig. 4 illustrates a fragmentary inside view of the key retainer.

Fig. 5 is a sectional view along the line 5—5 of Fig. 4.

Fig. 6 shows a fragmentary view of a modified form of key retainer.

Fig. 7 is a fragmentary view of another form of key retainer.

Fig. 8 is a section across the line 8—8 of Fig. 7.

Fig. 9 is a fragmentary view of still another form of key retainer and

Fig. 10 is a fragmentary sectional view of a wall of a modified casing and chain.

The casing according to the invention comprises front and rear walls 10 and 11, lateral side walls or wings 12 and 13 and a closing wall or flap 14. Side walls 12 and 13 are formed by folding the longitudinal marginal portions of the rear wall about their respective crease line as 15 inwardly and toward each other. Closing flap 14 is formed by folding the terminal portion of the expanded part of the front wall inwardly along a weakened or crease line 16. The contracted or narrowest parts of the front and rear walls are integrally connected. The casing is preferably formed from a one piece blank preferably of a pliable material, such as leather, cloth, or combination thereof.

With the side wings of the rear wall and the flap of the front wall folded and the interconnected narrowest parts of these walls creased along the line 17, the front and rear walls approximate a trapezoidal shape.

Suitably connected or riveted to the inner face of the upper portion of the rear wall 11 is a transversally disposed relatively flat reinforcing plate 18 which includes laterally extending terminal projections generally denoted 19.

Each projection 19 constitutes a clasp for disconnectibly holding one end of a key chain 20, the projections having arcuate lips 21 and 22 which extend towards each other but are slightly spaced apart, the chain having a plurality of spatially disposed spheroidal elements or balls as 23 with adjacent pairs thereof suitably interconnected by an intervening stem or pin 24. The clasps 19 serve as sockets in which a terminal element 25 of the chain may be removably retained.

In the embodiment according to Figs. 1 to 5 inclusive, the sockets form an integral part of the reinforcing plate 18 being formed from the restricted lateral terminals thereof to which the key chain is suspended. According to the embodiment disclosed in Fig. 6, the reinforcing plate 18 of form shown in Fig. 2 has been omitted and clasps 26 support the ends of the key chain.

The spaced curved lips 27 of the clasps 26 removably embrace the terminal spherical elements of the chain, each clasp being appropriately attached to the rear wall of the casing, for example, by rivets 28 or the like.

In the form illustrated in Figs. 7 and 8, the chain is removably attached to the rear wall of the casing without the utilization of clasps. To this end, the rear wall is provided with a pair of spaced openings or sockets 29 through which the terminal balls of the chain are pressed, each of these openings in width being slightly smaller than the diameter of a ball but the latter may be pressed through an opening since the wall in which these openings are formed is of a yieldable material. The chain may be easily and quickly disconnected by applying a slight pressure in an opposite direction to dislodge a terminal ball from its opening, the wall of the casing surrounding the intervening stem between a terminal pair of balls prevents dislodgement of the terminal elements of the chain.

Instead of suspending the chain from the rear wall of the casing, this chain may have its terminals removably associated with the side wings of the casing in which case each of the wings includes a perforation 30 through which a terminal ball is pressed, the wall of the respective wings being disposed between a terminal pair of adjacent spaced balls.

According to the form shown in Figs. 7 to 9 inclusive, the terminal portion of the chain is passed either through an opening or socket in the rear wall of the casing or through a similar opening in the side wings. These openings may be reinforced and strengthened by securing thereto an eyelet 33, which interlocks with a terminal ball 31, the latter having a plurality of openings 32 to permit the ball 31 to be sprung or deformed slightly in order to pass through the opening in the eyelet and after having passed through ball 31 due to its own resiliency assumes its former shape and is thereby prevented from being disengaged from the eyelet until again slightly deformed.

When suspended within the casing the key chain forms approximately a catenary curve by reason of its own weight, and keys for opening and closing door locks may be directly mounted on the chain. In practice I have found that if the keys be suspended in this fashion they accumulate and pile up and form a bulge, an objectionable feature, which may develop enough momentum at times to cause the casing to open. According to the invention, the disadvantage is overcome by providing means for maintaining the keys in the casing as to be at all times substantially in a plane parallel to both the front and rear walls, that is to say, lie flat with respect to these walls. For this purpose, a key as 35 is removably mounted on a clasp device broadly designated 36, which device is a one piece member including a top curved portion 37 which extends into juxtaposed inwardly extending throat portions 38 and from the latter spaced legs 39 and 40 extend. From legs 39 extends arm 41 on which the perforated part of the key 35 is seated. Leg 39 terminates in a tongue 42 adapted to interconnect or dovetail with the spaced lugs 43 extending from arm 40. Where it is desired to insert a key in the clasp device, leg 40 is first pressed outwardly. This causes the tongue to leave the slot defined by the spaced lugs 43, and thus providing sufficient clearance for the insertion of a key which is hung on arm 41 after which leg 40 is released and returns by its own resiliency to the position where the tongue 42 again interlocks with the spaced lugs to prevent the key from being accidentally disengaged.

The invention, of course, is appliable for all types of keys. However, it is of particular advantage for use with keys for cylinder type of locks. Such form of key is illustrated in a fragmentary fashion in Fig. 4 and although only a key for a cylinder lock is shown, it is to be understood that the invention is not limited thereto and the key retainer of the character herein described may hold other type of keys, such as, barrel, flat type or the like.

The clasp device is rotatably and loosely connected to a shank portion of a hook shaped member 45 which has its upper reflexed end mounted on an intervening stem between a pair of spherical elements, the connection between a shank portion and the curved terminal 37 being in the form of a swivel comprising a lower upset portion 46' upon which the clasp device is loosely suspended. The key clasp device therefore will assume a position parallel to the back wall of the casing and consequently cause a key to lie flat and occupy a relatively small space within the casing. Although a single key on a respective clasp device is shown suspended from a chain, obviously it is within the province of the invention to mount a plurality of clasp devices thereon for several keys.

The side wings of the casing may have their lower portion anchored to the rear wall of the casing and for this purpose rivets 46 or the like may be employed, which wings together with the rear wall constitute a pocket or chamber in which the several keys are suspended. With the lower portions of the wings held captive, they are prevented from folding into the plane of the rear wall. These wings when folded overlap adjacent portions of the inner face of the rear wall of the casing and any key or keys within close proximity thereto and these wings prevent the keys from falling or slipping out of the pocket. The front wall 10 of the casing forms a closure for the pocket, this wall being adapted to be swung upwardly about the crease line 17 and against the front faces of the side wings after which the flap 14 is folded over the rear wall of the casing and locked thereto by snapping the complementary fastening elements 48 and 49 and

in order to facilitate this operation a shield 50 is secured to the inner face of the closure, which shield provides a ready bearing surface on which the annular part of the fastener complement 48 may be seated preparatory to removably securing the other component 49 thereto.

In the broader aspects of my invention I do not desire to be understood as limiting its embodiments to details herein shown illustratively as a wide variety of modifications may be made within the scope of the appended claims without departing from the spirit of the invention.

I claim:

1. In a key retainer, a casing having spaced sockets, a chain having a plurality of spaced and interconnected enlargements and having its terminal enlargements removably disposed in said sockets, a reflexed member removably mounted between a pair of said enlargements and a key supporting clasp having a swivel connection with said reflexed member, said clasp comprising a pair of opposed leg portions, one of which includes spaced lugs and the other thereof embodies a projection adapted to removably interlock with said lugs.

2. In a key retainer, a casing having a reinforcing plate secured to one wall thereof, said plate having spaced sockets, a chain having a plurality of spaced and interconnected enlargements and having its terminal enlargements removably disposed in said sockets, a reflexed member mounted between a pair of said enlargements, a key supporting clasp having a swivel connection with said reflexed member, the clasp comprising a pair of opposed leg portions one of which includes spaced lugs and the other thereof embodies a projection normally interlocking with said spaced lugs.

3. In a key retainer, a casing having spaced sockets, a chain having a plurality of spaced and interconnected enlargements and having its terminal enlargements removably disposed in said sockets, a reflexed member removably mounted between a pair of said enlargements, a key supporting clasp having a swivel connection with said reflexed member, said clasp comprising a pair of opposed leg portions one of which includes spaced lugs and the other thereof embodies a projection adapted to removably interlock with said lugs, one of said terminal enlargements having a plurality of openings adapted to be slightly deformed as to be passed through one of said sockets and subsequently automatically expand to prevent return passage therethrough.

4. In a key retainer, a casing having spaced sockets, a chain having a plurality of spaced and interconnected enlargements and having its terminal enlargements removably disposed in said sockets, a reflexed member removably mounted between a pair of said enlargements, a key supporting clasp having a swivel connection with said reflexed member, said clasp comprising a pair of opposed leg portions one of which includes spaced lugs and the other thereof embodies a projection adapted to removably interlock with said lugs, one of said terminal enlargements having a plurality of openings adapted to be slightly deformed as to be passed through one of said sockets and subsequently automatically expand to prevent return passage therethrough, and an eyelet reinforcing said last mentioned socket through which the terminal enlargement which includes said openings may be passed.

HYMAN R. SEGAL.