Oct. 17, 1939. D. J. NASH 2,176,863

KEY CASE

Filed March 17, 1938

Fig. 1

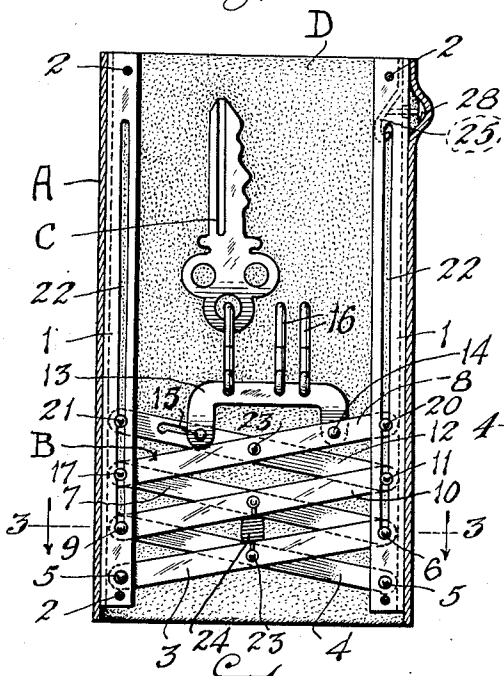



Fig. 2

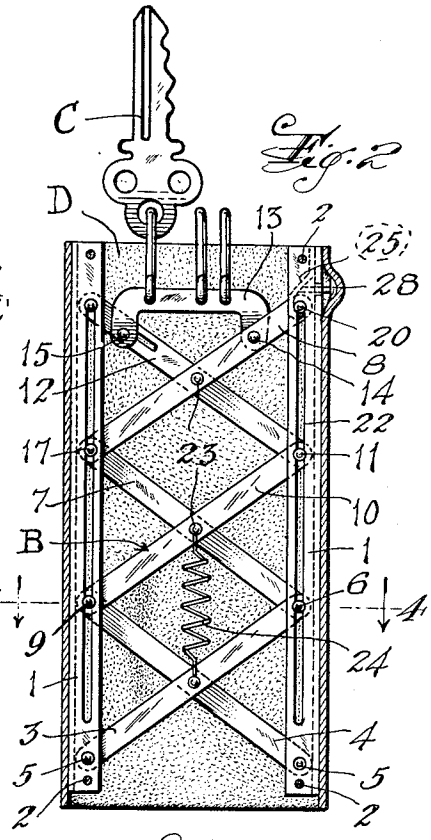



Fig. 3

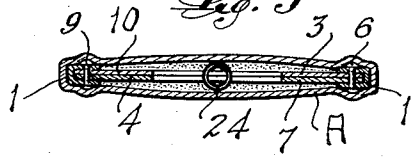



Fig. 4

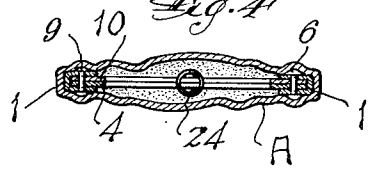



Fig. 6

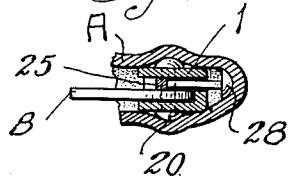
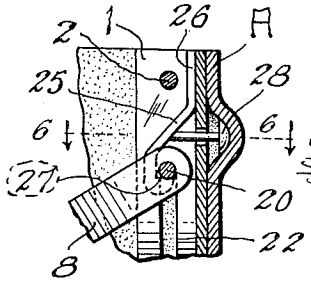



Fig. 5




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## KEY CASE

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Application March 17, 1938, Serial No. 196,457

5 Claims. (Cl. 150—40)

This invention relates in general to key cases or key pouches for normally encasing keys and the like for convenient carriage in the pocket, handbag or the like, and permitting the keys to be projected or pulled from one end of the case for use.

One object of the invention is to provide a key case or key pouch of the general character described which shall embody novel and improved means for automatically ejecting the keys from one end of the case for use of the keys and for automatically retracting the keys into the case after use thereof.

Further objects are to provide a key case of this character embodying novel and improved features of construction whereby the keys may be ejected from one end of the case by simple squeezing or lateral contraction of the case; and thus to utilize the principle of the lazy tongs for ejecting the keys from a case and retracting the keys into a case.

Other objects are to provide novel and improved automatic means for holding the keys in ejected position for use and for releasing the ejected keys at the will of the operator for retraction thereof into the case after use; to provide a key case of the character described which shall be simple, inexpensive, reliable and durable in construction and operation, and to obtain other advantages and results as will be brought out by the following description when read in conjunction with the accompanying drawing in which

Figure 1 is a plan view of a key case embodying my invention with the top wall of the case removed for clearness in illustration, and showing the keys in their normally housed position within the case.

Figure 2 is a similar view showing the keys in ejected position for use.

Figure 3 is a transverse vertical sectional view on the line 3—3 of Figure 1.

Figure 4 is a similar view taken on the line 4—4 of Figure 2.

Figure 5 is a fragmentary sectional plan view of a catch for holding the keys in ejected position, and

Figure 6 is a transverse vertical sectional view on the line 6—6 of Figure 5.

Specifically describing the illustrated embodiment of the invention, the reference character A designates a case of suitable construction, and as shown the case is flat and tubular and has at least a portion of its walls flexible or pliable. Preferably the case is formed of flexible material such as leather or fabric.

Within the case is a key holding and ejecting mechanism B that is operable upon squeezing or lateral compression or flexure of the case so as to automatically eject the keys C from one open or front end D of the case. The mechanism B also is operable to automatically retract the keys into the case upon release of the squeezing pressure on the case. As shown, the mechanism B comprises a system of links, of the general nature of lazy tongs, which is extensible and contractable to move the keys longitudinally of the case A.

More specifically, along each longitudinal edge of the case A or at least adjacent the flexible portion of the walls of the case, and within the case, is a guide 1, preferably in the form of a channel, said guides being secured to the case in any suitable manner as by rivets 2. Each of a pair of links 3 and 4 has one end pivotally secured at 5 to each guide 1 adjacent the rear end of the case A. The other end of the link 3 is pivotally connected at 6 to one end of a link 7 the other end of which is pivotally connected at 17 to a link 8. The end of the link 4 opposite the pivotal connection 5 with the corresponding guide 1, is pivotally connected at 9 to one end of another link 10 the other end of which is pivotally connected at 11 to another link 12. The free ends of the links 3 and 12 carry the respective pivot pins 20 and 21 for pivotally and slidably connecting the links to the guides 1.

Across the links 3 and 12 is mounted a key supporting yoke 13. As shown, this yoke has one end pivotally connected to the link 3 at 14 and the other end having a pin and slot connection 15 with the link 12. Loops, clips or other suitable means 16 are provided for connecting the keys C to the yoke 13.

Preferably the ends of the links 3, 4, 7, 8, 10 and 12 are disposed between the flanges of the respective channel guides 1, and the links are arranged in criss-cross relation, as in lazy tongs, with the pivot pins 6, 9, 11, 17, 20 and 21 slidable in slots 22 which extend longitudinally of the guides 1. Preferably the links will be connected at their crossing points by pivot pins 23.

Figure 1 shows the key case and key ejecting mechanism in the normal key housing condition, with the links 3, 4, etc., contracted and the keys C wholly enclosed within the case A. To eject the keys, it is simply necessary to grasp the case in one hand and squeeze or laterally flex the case to move the guides 1 linearly toward

each other, which in turn causes the links 3, 4, etc., to swing relatively to each other to extend the lazy tong mechanism and move the key holding yoke 13 toward the open end of the case so as to project the keys from the case into position for use as shown in Figure 2.

For automatically retracting the keys into the case, I may provide a tension spring 24 between certain of the links, for example the links 3 and 10, which normally tends to contract the links or influence them so as to draw the yoke 13 inwardly of the case.

Suitable latch means or catches are provided for temporarily holding the keys in ejected position during use. The structure of the latches or catches may be widely modified, but for the purpose of illustration I have shown a spring latch 25 having one end riveted or otherwise secured at 26 to the base of one guide 1 adjacent the forward or open end of the case and having at its other end a head or shoulder 27 to engage the pivot pin 21 when the mechanism B is fully extended to eject the keys. For releasing the latch 25, the latch may be provided with a push button 28 projecting through the base of the channel guide 1 and lying between the channel guide and the case A, as clearly shown in Figures 5 and 6. As the keys are ejected, the pin 21 will be caught by the head 27 of the latch 25 and hold the keys in ejected position against the influence of the spring 24. Thus the keys can be maintained in convenient position for use. When it is desired to encase the keys, it is merely necessary to push the push button 28, which will move the head 27 of the latch out of engagement with the pin 21 and permit the spring 24 to contract the mechanism B and draw the keys into the case A.

While I have shown and described the invention as embodied in certain details of structure, it should be understood that this is primarily for the purpose of illustrating the principles of the invention, and that the invention may be embodied in many different details of structure without departing from the spirit or scope of the invention.

Having thus described my invention, what I claim is:

1. A key pouch comprising a case formed of flexible material and having an opening at one end, a rigid guide member secured within said case along each longitudinal side of the case, a lazy tongs mechanism including a series of pivotally connected links within said case with one end of each link at one end of the series pivotally connected to each guide and with the ends of the links that are pivotally connected together also slidable in said guides, and a key holder connected to the links at the other end of said lazy tongs series, whereby upon squeezing of said case to move said guides toward each other, said lazy tongs mechanism will be extended to move said key holder toward said opening to project keys on the holder through the opening.

2. A key pouch comprising a case formed of flexible material and having an opening at one end, a rigid guide member secured within said case along each longitudinal side of the case, a lazy tongs mechanism including a series of pivotally connected links within said case with one end of each link at one end of the series pivotally connected to each guide and with the ends of the links that are pivotally connected together also slidable in said guides, and a key holder connected to the links at the other end of said lazy tongs series, whereby upon squeezing of said case to move said guides toward each other, said lazy tongs mechanism will be extended to move said key holder toward said opening to project keys on the holder through the opening, and a spring for influencing said lazy tongs mechanism in the other direction to retract said holder and keys into the casing upon release of said guides for movement apart.

3. A key pouch comprising a case formed of pliable material with an opening at one end, a lazy tongs system of links within said case having a pair of crossed pivotally connected links at the end thereof opposite said opening, a pair of operating members connected to said case and movable linearly toward and from each other and operable from the exterior of the case, one member being pivotally connected to the end of each of said links at the end of said lazy tongs system opposite said opening, whereby upon movement of said members toward each other said lazy tongs system will be extended to move the other end thereof toward said opening, a key holder having a pin and slot connection with the links at the second-mentioned end of said lazy tongs system and movable toward said opening as said lazy tongs system is extended, and a spring for influencing said lazy tongs system in the other direction to move said key holder away from said opening.

4. A key pouch comprising a case formed of pliable material with an opening at one end, a lazy tongs system of links within said case having a pair of pivotally connected links at each end thereof, a pair of operating members connected to said case and movably linearly toward and from each other and operable from the exterior of the case, one member being pivotally connected to the end of each of said links at the end of said lazy tongs system opposite said opening, whereby upon movement of said members toward each other said lazy tongs system will be extended to move the other end thereof toward said opening, a key holder, separate and spaced pivotal connections between said key holder and the end of each link at the second-mentioned end of said lazy tongs system for supporting, guiding and moving said key holder in said case toward said opening as said lazy tongs system is extended, and a spring for influencing said lazy tongs system in the other direction to move said key holder away from said opening.

5. A key pouch comprising a case formed of pliable material with an opening at one end, a lazy tongs system of links within said case having a pair of crossed pivotally connected links at the end thereof opposite said opening, a pair of members connected to said case and relatively movable together and apart, one member being pivotally connected to the end of each of said links at the end of said lazy tongs system opposite said opening, a key holder pivotally connected to the links at the other end of said lazy tongs system, whereby said members move relatively to each other in one direction to extend said lazy tongs system and move said key holder toward said opening, a spring for contracting said lazy tongs system to move said key holder away from said opening, and a releasable latch for holding said lazy tongs system extended against the influence of said spring.

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