April 4, 1933. D. COPELL 1,903,372

KEY HOLDER

Filed Jan. 20, 1932

Fig-1-

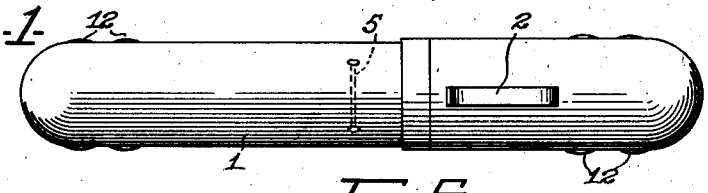


Fig-6-

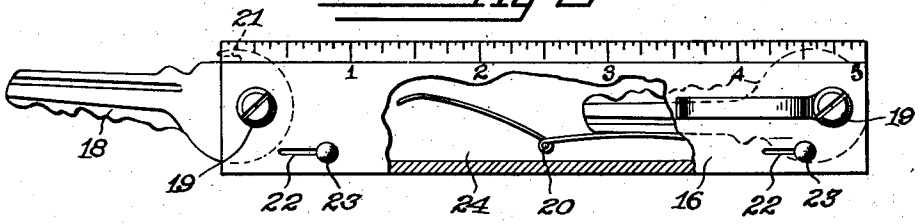


Fig-2-

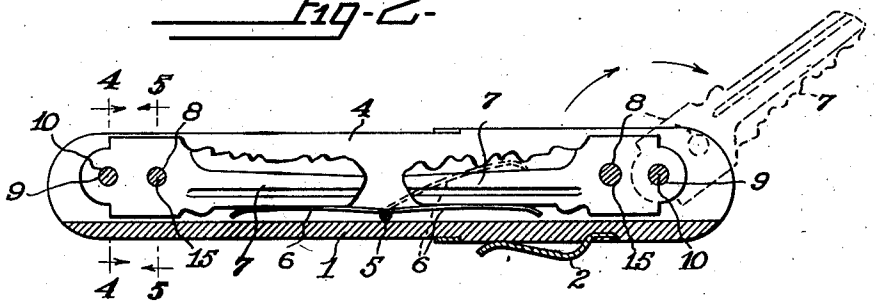


Fig-3-

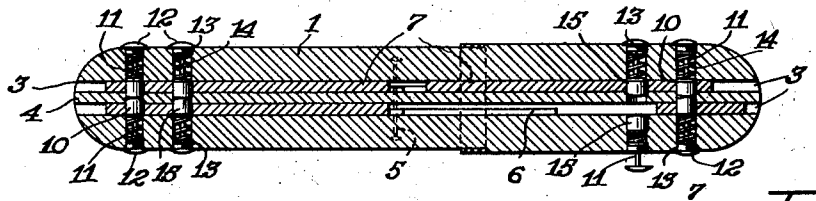


Fig-4-

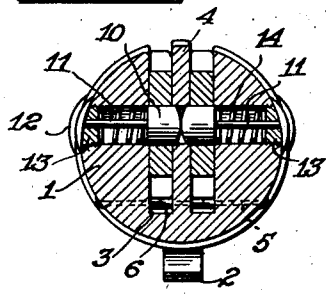


Fig-7-

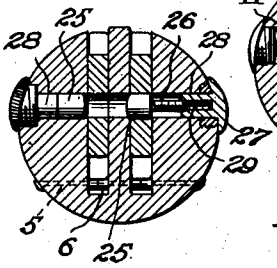
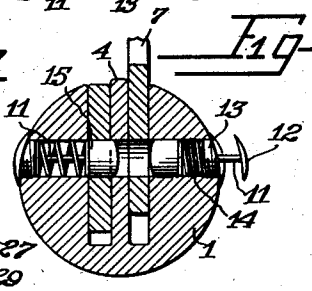


Fig-5-



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UNITED STATES PATENT OFFICE

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KEY HOLDER

Application filed January 20, 1932. Serial No. 587,768.

My present invention has reference to a key retainer and has for its general object the provision of a key retainer that is of a form similar to the shape of a fountain pen and which is provided with a clip that will effectively sustain the retainer in the vest pocket of the owner, and further wherein the retainer is provided with a plurality of longitudinally arranged spaced grooves that afford pockets for keys, the said keys being removably secured and latched in the body in a novel manner and likewise being spring influenced to swing the same outwardly to operative position when the latch for any of the said keys is moved to unlatching position.

To the attainment of the above broadly stated objects and many others which will present themselves as the nature of the invention is better understood, the improvement resides in the construction, combination and operative association of parts, one satisfactory embodiment of which is disclosed by the accompanying drawing.

In the drawing:

Figure 1 is a side elevation of my improvement.

Figure 2 is an approximately central longitudinal sectional view therethrough.

Figure 3 is a sectional view taken at right angles to the showing of Figure 2.

Figure 4 is a transverse sectional view approximately on the line 4—4 of Figure 2.

Figure 5 is a substantially similar sectional view approximately on the line 5—5 of Figure 2 and showing one of the latches released to automatically swing a key through the holder.

Figure 6 is a view illustrating a slight modification.

Figure 7 is a transverse sectional view through a modified form of latching and releasing means.

The body 1 of my improved holder may be constructed of any desired material and as disclosed by Figures 1 to 5 of the drawing is of a size and shape substantially similar to that of an ordinary fountain pen. One end of the body is enlarged to represent the cap for the pen and on this enlarged portion there is fixed one end of an ordinary spring clip 2. The clip effects in holding the body in the vest pocket of the owner of the holder.

The body 1 is provided with any desired number of longitudinally arranged grooves which extend through the rounded ends thereof and which grooves are divided from each other by partitions. In the showing of the drawing two of such grooves 3 are provided and a single partition 4 is arranged between and divides the grooves.

In each of the grooves 3, adjacent to the lower walls provided thereby, there is centrally fixed, as at 5, a spring plate, the center and pivotal portion of the said plate dividing the same into oppositely extending arched arms 6, respectively and these arms are designed to be compressed to substantially flat position by contact with the straight edges of the shanks 7 of keys. The head portions of the keys are each provided with a pair of spaced rounded openings 8 and 9, respectively. In the showing of the mentioned figures of the drawing the heads of the keys are widened from the shanks thereof and have their opposite edges straight and their outer ends centrally formed with reduced rounded portions that have their openings 9 passing therethrough, the openings 8 passing through the flat and substantially rectangular portions of the heads. The body 1, in a line with the openings 8 and 9, as well as the partition 4 have round openings therethrough for the passage of plug-like dogs 10 whose confronting ends are round, each of said dogs being formed at its outer end with a stem 11 that merges into a button-shaped head 12. Each of the shanks 11 is passed through a sleeve or bushing 13 that is screwed in the open-

ings from the sides of the body. Surrounding the stems and exerting a pressure between the plugs or dogs and the sleeves or bushings 13 there are coil expansion springs 14 which force the rounded ends of the dogs toward each other and through the openings 9 and 8. The outer dogs thus provide pivots for the keys, while the inner dogs, indicated for distinction by the numeral 15, provide latching elements for the keys, such dogs passing through the openings 8 in the heads of the keys. An outward pull upon any of the latch dogs will permit the latched spring 6 which contacts with the key that has been released by the said latch dog swinging the same through the slot 3 to operative position as disclosed by the dotted lines in Figure 2 of the drawing and the key may be returned into the groove by the operator and automatically latched by the latching dogs 15.

In Figure 6 the body 16 is slotted to provide compartments for keys 18. In this instance the body is of rectangular formation and has its outer faces provided with ruled scales. Also the heads of the keys are of the usual shape and are pivoted in the body by screws 19. The shanks of the keys rest upon the opposite arched limbs 20 of a spring secured in the groove or compartment and each of the keys has its head and its inner edge formed with a slot 21 to receive therethrough a latch pin that is slidable through somewhat elongated slots 22 in the body, the said latch pins having their opposite ends headed, as at 23. When the latch pins are moved out of the notches the springs 20 will swing the keys out of the slot or slots 24 in the body to bring the said keys to operative position.

In Figure 7 the body of the device is similar to that previously described, the same having longitudinal slots for the reception of keys and a partition dividing the slots into two compartments. The latching means that afford both the pivots and the locking means for the keys, however, are of a slightly different construction from those previously described. These pivots and latches are, however, of a similar construction each comprising an inner member in the nature of a lug that affords a dog 25, each dog being provided on its outer and straight end with a reduced threaded stem 26. The second element of the pivot or catch includes an outer head 27 and a shank 28 which has an interiorly threaded bore 29. The member 29 is thus in the nature of a female element of the latch or pivot and the same has screwed therein the threaded shank 26 of the dog 25. The female member draws the dog thereinto when the headed end 27 of the said member is turned in one direction. When the knurled or button heads are turned in a second direction the dogs 25 will be moved outwardly therefrom to enter the opening in the head of the key to hold the key latched and pivotally supported in the holder.

When desired to remove the key from the key holder the outer knurled heads or buttons 27 of the female members are turned clockwise to draw the male members or dogs into the bores 29, which permits of the ready removal of the keys. No parts of the keys can come apart with the employment of the pivots and latches so that the key cannot be accidentally lost.

It is thought that the foregoing description when read in connection with the drawing will fully and clearly set forth my construction and the advantages so that further detailed description will not be required. Obviously I do not wish to be restricted to the precise details herein set forth and, therefore, hold myself entitled to make such changes therefrom as fairly fall within the scope of what I claim.

Having described the invention, I claim:

1. A key holder comprising a body provided with longitudinal slots, a partition plate between the slots, a spring centrally fixed in the slots adjacent to the bottom thereof and having oppositely extending arched arms, keys designed to be received in the slots and having their head portions provided each with a pair of spaced round openings, and spring influenced dogs having their confronting ends rounded, movable through the sides and into the partition of the body to pass through the openings in the key head and to afford respectively pivots and latches for the keys, and each of said dogs having its outer end provided with a button head that normally hugs the sides of the body.

2. A key holder comprising a round body, of a length and shape to resemble a fountain pen which is provided with a clip, said body having spaced longitudinal slots therethrough, and a partition wall between said slots, a spring having arched ends centrally fixed in each of the slots adjacent to the lower portions of said slots, and said arched portions designed to contact with the shanks of the keys which have their heads each provided with a pair of spaced round openings, said body and partition having round openings therethrough to aline with the openings in the key head when the keys are arranged in the body, dogs having rounded confronting ends in said openings, stems on the dogs merging into button heads, guide sleeves in the openings for the stems, and coiled expansion springs surrounding the stems and exerting a pressure between the guide sleeves and the dogs and one pair of said dogs affording pivots for the keys and the other pairs of said dogs affording latches for said keys.

3. A holder comprising a body having

slots, a partition between said slots, keys received in the slots and each having spaced openings, opposing elements movable through the body and openings of the keys and into the partition to provide pivots and latches for the keys, heads on said elements to facilitate manual operation thereof and normally hugging the walls of the body, and tension means in the slots to normally urge the keys outwardly of said slots.

In testimony whereof I affix my signature.

DANIEL COPELL.