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2,610,501

KEY HOLDER

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Fig. 6.

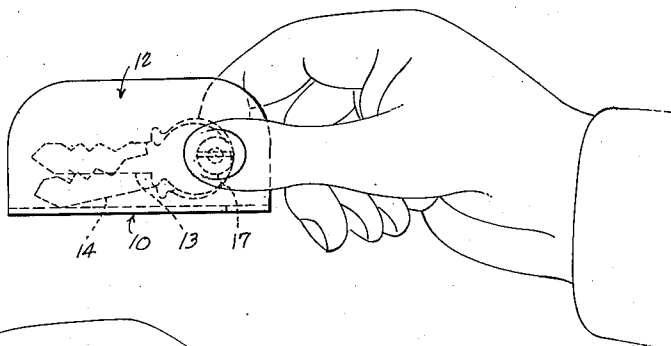


Fig. 7.

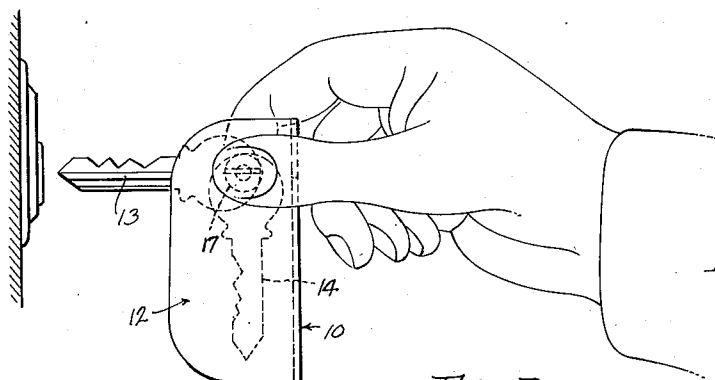


Fig. 5.

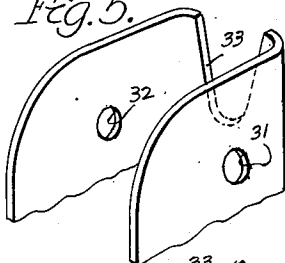


Fig. 3.

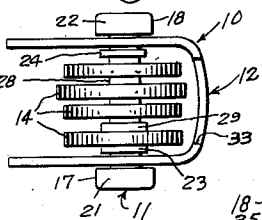


Fig. 1.

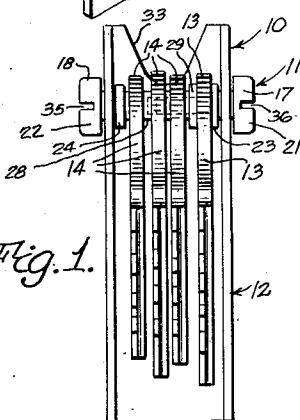


Fig. 2.

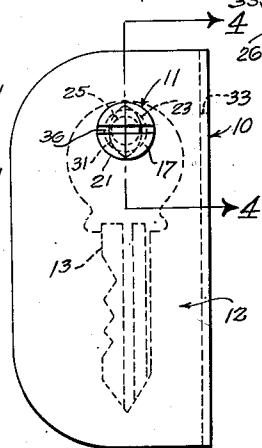


Fig. 4.

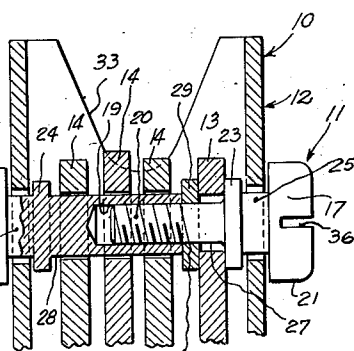


Fig. 8.

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KEY HOLDER

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2 Claims. (Cl. 70-456)

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This invention relates to key holders.

One object of this invention is to provide a key holder which by a simple manipulation will automatically select one key from several keys on the holder, either in daylight or in darkness, without requiring any effort on the part of the operator to locate the key.

Another object is to provide a keyholder which by the aid of a simple mechanism automatically selects a chosen key out of a group of keys carried by the holder, the weight of the unchosen keys cooperating with the case to automatically expose the chosen key when the keyholder is held in a certain manner by the user.

Another object is to provide a keyholder which automatically selects one of a group of keys in the holder, without the use of springs, latch mechanism or push buttons and without the need for any mental effort on the part of the user, who merely is required to hold the keyholder in a certain manner and permit the unselected keys to drop away from the selected key by the force of gravity, the presence of the case being preferable but not necessary to the proper functioning of the key holder.

Another object is to provide a key holder having several keys carried in a case and particularly well-adapted to carrying an automobile ignition key, the case being so constructed that when the ignition key is inserted in the ignition switch on the dash of the automobile, it cooperates with the case to prevent the other keys from rattling or contacting the dash.

In the drawings:

Figure 1 is a front elevation of a key holder according to a preferred form of the invention, with four keys held thereby;

Figure 2 is a right-hand side elevation of the key holder shown in Figure 1;

Figure 3 is a top plan view of the key holder shown in Figures 1 and 2;

Figure 4 is a fragmentary vertical section taken along the line 4-4 in Figure 2;

Figure 5 is a fragmentary perspective view of the upper portion of the key holder case;

Figure 6 is a side elevation showing the manner in which the key holder is held in the hand at the start of the key-selecting operation.

Figure 7 is a view similar to Figure 6, but showing the position of the parts after the second operation in manipulating the key holder; and

Figure 8 is a side elevation of the key holder of Figures 1 to 7 inclusive, wherein one of the keys cooperates with the case to prevent contact of the other keys with the dash board or other surface into which the key is inserted.

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Referring to the drawings in detail, Figures 1 to 4 inclusive show a preferred form of the key holder of the present invention, generally designated 10, as consisting generally of a pivot structure 11 and a case 12 loosely and pivotally mounted thereon. The case 12 is optional but is preferably employed in order to protect the lining of the pockets, handbag or other receptacle in which the keys are placed. Any number of keys may be carried by the key holder, but for purposes of illustration there is shown one selected key 13 which it is desired to automatically expose, whether in darkness or light, and three other unselected keys 14.

The pivot structure 11 on which the keys 13 and 14 are mounted consists of externally and internally threaded screw members 17 and 18 respectively (Figure 4), the latter having a threaded bore 19 into which the threaded stem 20 of the former is inserted. The members 17 and 18 are provided with enlarged heads 21 and 22 respectively, and annular integral flanges 23 and 24 spaced axially away from the heads 21 and 22, along the shank portions 25 and 26 respectively. On the opposite side of the flange portions 23 and 24 the members 17 and 18 are provided with shank portions 27 and 28 of different diameters. A washer 29 having a hole 30 is loosely mounted on the shank portion 27 of the member 17 and has a diameter greater than the diameter of the shank portion 28 of the member 18. The shank 28 is of a diameter sufficiently small to pass loosely through the holes in the keys 14 so that the latter pivot loosely around it. The selected key 13, however, is held tightly between the flange portion 23 and washer 29 by screwing the threaded members 17 and 18 firmly together.

The case 12 is of approximately U-shaped cross-section and has aligned holes 31 and 32 (Figures 4 and 5) in the opposite side walls thereof which are sufficiently large to be stretched over the flange portions 23 and 24 without passing freely back over these flange portions. The rear wall or connecting wall of the case 12 is provided with a notch 33 for a purpose described below. The case 12 is made from any suitable material, leather being found to be particularly suitable because of its yielding and stretching characteristics, as well as its softness. The screw heads 17 and 18 are provided with the usual slots 36 and 35 respectively for the insertion of a screw driver.

In the use of the invention, let it be assumed, as previously stated, that the selected key 13 is tightly clamped between the flange portions 23 and the washer 29 by firmly screwing the

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threaded members 17 and 18 together, the end of the shank 28 of the threaded member 18 engaging and urging the washer 29 against the side of the selected key 13. Let it also be assumed that the unselected keys 14 are mounted to pivot loosely and freely about the shank portion 28 of the threaded member 18.

To select the key 13 from the holder 10 and expose it, the operator grasps the holder with the heads 21 and 22 of the pivot structure 11 held firmly between the thumb and index finger of the hand (Figure 6) and with the case 12 containing the keys 13 and 14 held with its open side upward. To select the key, the operator permits the case 12 and the keys 14 therein to drop to a vertical position (Figure 7) under the force of gravity while maintaining a tight grip on the pivot structure 11 between his thumb and forefinger. Since the keys 14 and case 12 are loosely and pivotally mounted on the pivot structure 11, they drop freely into a vertical position. Since the selected key 13, however, is clamped tightly to the pivot structure 11, it remains in a horizontal position when the case 12 and unselected keys 14 drop away from it by gravity.

When the keyholder 10 is used to hold an automobile ignition key, the notch 33 comes into play to prevent either the remaining keys or the case from touching the surface of the dash board or other member 40 into which the key is inserted. The bottom of the notch 33 is slightly above the level of the axis of the holes 31 and 32 (Figure 5) so that the key case 12 will be held in an inclined position (Figure 8) with the bottom of the notch 33 pushed against the key in the ignition switch 41, the case 12 being held in this position by the weight of the remaining keys 14.

What I claim is:

1. A key holder for automatically selecting a selected key from one or more unselected keys comprising an elongated pivot structure having enlarged heads at its opposite ends and having a substantially smooth external pivot surface lying between said heads, said pivot structure including a pair of pivot elements arranged coaxially with one another, one of said pivot elements bearing a key abutment thereon, and a key clamping member on said abutment bearing pivot element,

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the other pivot element being adapted to urge said clamping member and the selected key into clamping engagement therewith against said abutment and fixedly and immovably secure said selected key to said abutment, said other pivot element being adapted to loosely and pivotally fit the holes in the unselected keys.

2. A key holder for automatically selecting a selected key from one or more unselected keys comprising an elongated pivot structure having enlarged heads at its opposite ends and having a substantially smooth external pivot surface lying between said heads, said pivot structure including an internally threaded screw element, a key clamping member having a hole therethrough, and an externally threaded screw element threaded through the hole in said clamping member into said internally threaded screw element, said externally threaded screw element having a key abutment thereon and a shank portion adapted to pass through the hole in the selected key, and said internally threaded screw element having a portion adapted to clampingly urge said clamping member against said selected key and said selected key fixedly and immovably against said abutment, said internally threaded screw element having a shank portion adapted to pass loosely through the holes in the unselected keys.

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