Sept. 21, 1971 J. C. WATSON 3,606,777

KEY HOLDER

Filed Aug. 12, 1970

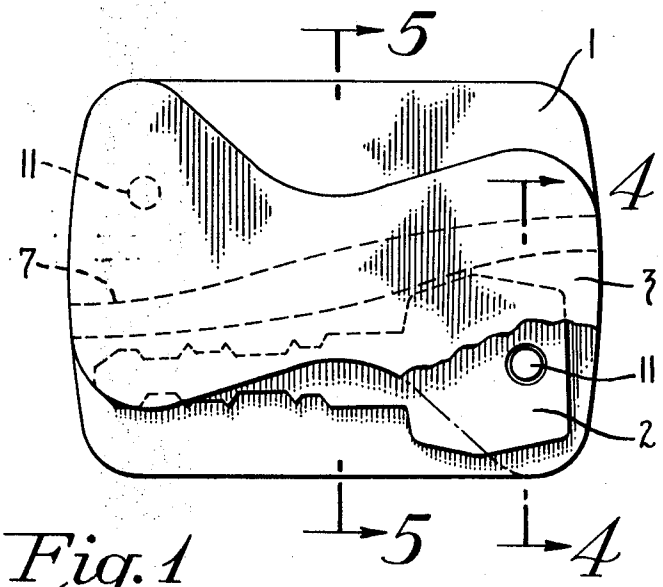


Fig. 1

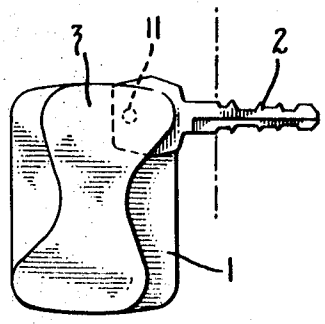


Fig. 6

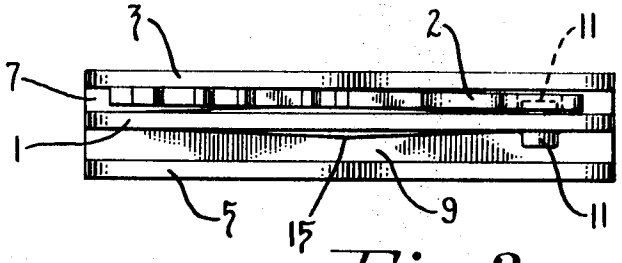


Fig. 2

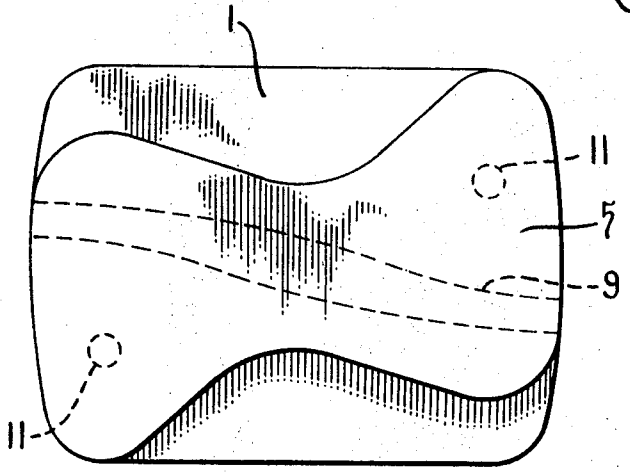


Fig. 3

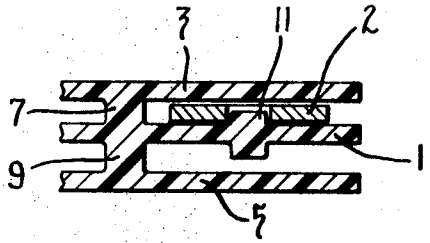


Fig. 4

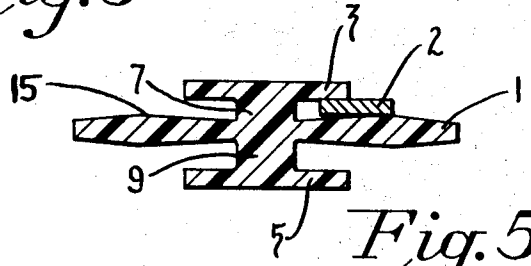


Fig. 5

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United States Patent Office 3,606,777
Patented Sept. 21, 1971

3,606,777

KEY HOLDER

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Filed Aug. 12, 1970, Ser. No. 63,132
Int. Cl. A47g 29/10
U.S. Cl 70—458 7 Claims

ABSTRACT OF THE DISCLOSURE

A key holder formed in a single plastic piece including a central flat rectangular portion connected to a pair of flat outer flexible key enclosing members by narrow web portions to form four key receiving compartments. Key pivot protrusions are formed each side of the central portion to locate and hold keys inserted into each compartment. The outer members are cut away to provide access to key in the compartment.

This invention relates generally to improvements in key holders, and more specifically to inexpensive key holders that can be molded of plastic in a single piece and which will hold from one to four keys, allow each key to be used at will and to be easily removed from and reinserted in the holder at will.

Many attempts to provide key holders receiving a plurality of keys have been made. These holders have not fulfilled the objective of a simple foolproof case or holder that requires no assembly, has no parts that can be lost or need adjustment and has no sharp edges or members that can cause wear in the user's pocket.

It is therefore an object of the invention to provide an inexpensive key holder that can be molded of plastic in a single piece.

Another object is to provide a key holder that will accept keys of different sizes and which will permit rapid and simple insertion and removal of any one or several of the keys.

These and other objects, features and advantages will be readily apparent from the following description and accompanying drawings which show a preferred embodiment and in which:

FIG. 1 is a plan view of a key holder made according to the invention;

FIG. 2 is a side elevational view of the holder;

FIG. 3 is a view of the underside of the holder of FIG. 1;

FIG. 4 is a partial sectional view of the holder taken on the lines 4—4 of FIG. 1; and

FIG. 5 is another sectional view of the holder taken on the lines 5—5 of FIG. 1; and

FIG. 6 is a reduced size view showing the normal position of the holder with a key in use.

Referring now to the figures, the key holder includes a central generally rectangular shaped flat portion 1 and a pair of outer flat portions 3 and 5. The portions 3 and 5 have the same length as the central portion 1 but have a generally hour-glass shape with reduced width at their ends and a substantially reduced width at their center or mid portions.

In the preferred form, the key holder is molded of a suitable flexible, strong and relatively hard plastic material in a single piece, although a holder could be made by cementing various pieces together. The single molded form has a clear advantage, especially as to ease of manufacture since no assembly of parts is required and, furthermore, a stronger unbreakable unit results with a neater appearance.

The outer side portions 3 and 5 are respectively connected to the central portion 1 by elongated web portions 7 and 9 which act to divide the space between portions 1

and 3 into a pair of key compartments or pockets and likewise the space between portions 1 and 5 into another pair of key compartments or pockets. As shown, the web 9 is thicker than web 7 so as to space outer side portion 5 further from the central portion 1 than the portion 3 is spaced therefrom. This different spacing provides for properly holding and accommodating keys of two basically different thicknesses.

Generally, keys for locks in houses and other building doors are thicker than keys used for cars, and the different spacing in the holder provides for two basic sized keys. Differences between key thicknesses are also accommodated by the central portion 1 having a greater thickness at point 15 than at its edge, the purpose of which is explained below.

In order to secure and hold individual keys in the four compartments there are four raised circular protrusions 11 formed in the central portion 1 at the positions shown. These protrusions could of course be formed in the outer members 3 and 5 and extend toward the central portion 1 instead of from the central portion. It should be noted that the protrusions extend only a part of the distance beween the central and outer portion. The clearance that remains serves to minimize the amount the outer portion need be flexed to insert a key in the holder. The protrusions have relatively sharp edges so that a key cannot be accidentally removed by a mere pulling force acting to cam the outer portion away from the central portion.

Keys are easily inserted in the holder by using the key as a lever to slightly spread the outer portion away from the central portion sufficiently to allow the key to pass between the pivot protrusion 11 and opposite outer portion 3 or 5. The key is then moved until the protrusion snaps into the aperture or ring hole formed in the head end of the majority of keys. The clearance between the central and outer portions adjacent the pivot protrusion is sufficient to normally allow completely free pivotal movement of the key about the protrusion. As the key is swung inward about its pivot toward the central web 7, it encounters the inclined surface leading to point 15 on the central portion and causes the key to wedge itself between the central and outer portions and thereby effect a friction holding of the key in its inoperative position. This frictional or wedge holding will occur at different rotational positions for keys having different thicknesses. Thin keys will have to be swung inwardly farther than thick keys before the friction clamping takes place, however the clamping takes place regardless of the key size without affecting the free pivoting of the key about protrusion 11 when the key is in its swung out operative position or while it is being swung inward toward its stored position.

The free pivot action of the key when swung out permits the holder to assume a hanging position as shown in FIG. 6 wherein the holder is in a natural position to serve as a handle for turning the key.

When it is desired to remove a key from the holder, as when it is necessary to leave an ignition key in a car left in a parking lot, the holder can be slightly twisted and pulled off the key leaving the same in the ignition lock. The presence or absence of a particular key has no affect on other keys held in the holder.

It will be observed that the invention provides a key holder that has no sharp edges or protruding members that can snag or cause wear in a user's pocket. There are no parts that can rust, wear out or malfunction. There are no parts that can be lost. The smooth uninterrupted surface on the holder provides an ideal space for ornamental design or advertising matter.

It will be seen that the invention provides an inexpensive key holder that will accommodate a plurality of

different size keys, will allow easy rapid insertion and rapid removal of any key, does not have any parts to be assembled, adjusted or lost and has no exposed areas that can cause wear or tear on a user's pocket.

I claim:

1. A key case formed in a single piece including a main flat rectangularly shaped portion, a second generally flat portion parallel to and spaced from the main portion approximately the distance equal to the thickness of the key to be carried in the case, said main and second portions integrally connected by a narrow web diagonally extending across the main portion and serving to divide the space between the main and second flat portions into a pair of generally triangularly shaped key receiving pockets, a key supporting pivot protrusion in each pocket extending from one of said flat portions toward the other portion a substantial distance, said second flat portion being of substantially the same length as said main portion but having a width less than the main portion whereby a key contained between said main and second portions will be partially exposed on one side, said second portion being sufficiently flexible to allow a key to pass between the protrusion and the other portion when a key is inserted between the flat portions and used as a lever to bend said second portion away from said second portion.

2. The key case of claim 1 wherein said main flat portion increases in thickness from its outer longitudinal side towards the web so that a key swinging about one of said protrusions into one of said pockets will be forced toward the main portion and held by friction between said flat portions in said pocket.

3. The key case of claim 1 wherein said protrusions have relatively sharp edges whereby a key cannot be removed without twisting the same to spread apart the flat portions.

4. The key case of claim 1 wherein said web spaces said flat portions a distance greater than the thickness of average key to be used with the case whereby such a key held in place by one of said protrusions can swing freely about said protrusion.

5. The key case of claim 4 wherein said second flat portion increases in thickness from its outer longitudinal side towards said web so that a key swinging about one of said protrusions into one of said pockets will be forced toward the main portion and held by friction between said flat portions in said pocket.

6. The key case of claim 1 wherein a third generally flat flexible portion parallel to and spaced from the main portion is integrally connected to the main portion by a second web diagonally extending across the main portion to provide a second pair of key receiving pockets, and a second pair of key supporting pivot protrusions, one in each pocket, extending a substantial distance between said third and main portions.

7. The key case of claim 6 wherein said second web has a different thickness than said first web wherein said second pair of key receiving pockets can accommodate keys of different thicknesses than the first pair of pockets.

References Cited

UNITED STATES PATENTS

1,886,110	11/1932	Lippstadt	70—457
2,274,820	3/1942	Bills	70—456R
2,468,959	5/1949	Cannon	70—458
3,354,679	11/1967	Le Fave	70—456R
3,406,546	10/1968	Clement	70—456R

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U.S. Cl. X.R.

70—456R