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[54] **KEY CONTAINER**

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[52] **U.S. Cl.** ..... **70/456 R**
[51] **Int. Cl.** **A47g 29/10**
[58] **Field of Search** ..... 70/456 R, 459; 150/40; 24/237, 3 K

[56] **References Cited**

UNITED STATES PATENTS

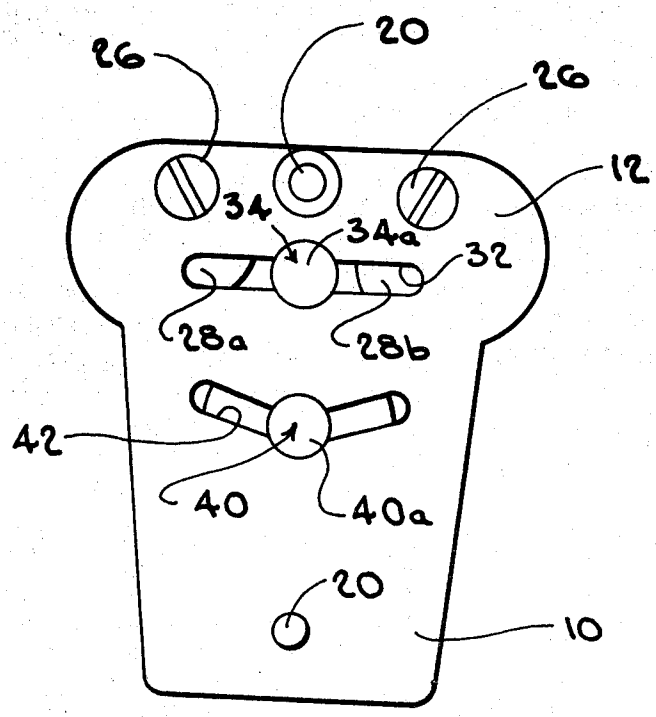
1,493,689	5/1924	Marcus	70/456 R
2,433,644	12/1947	Bennetch	70/456 R
2,006,286	6/1935	Waller	70/456 R
2,248,436	7/1941	Rivers	70/456 R
2,287,521	6/1942	Handley	70/456 R
2,795,128	6/1957	Ly	70/456 R

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[57] **ABSTRACT**

A key case having a plurality of slot portions containing pairs of stored key members pivotally movable by selectively operable sliding ejector button members. The button members are positioned in horizontally spaced slot portions to engage only associated key pairs.

9 Claims, 5 Drawing Figures



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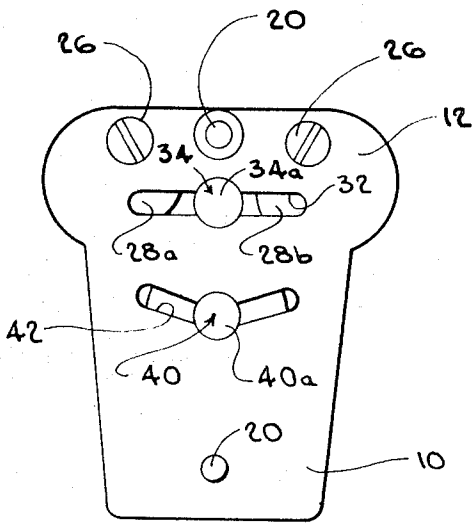


Fig. 1

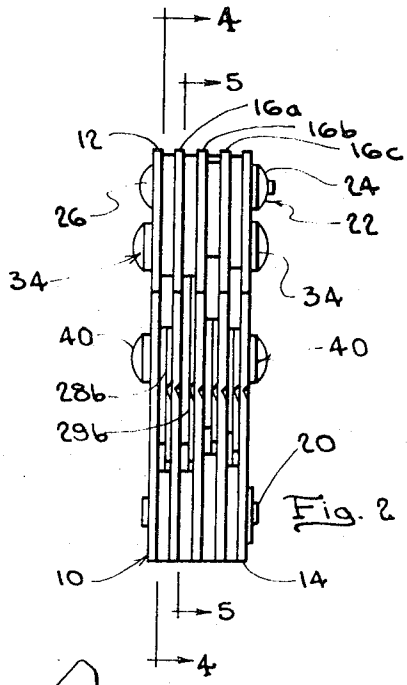


Fig. 2

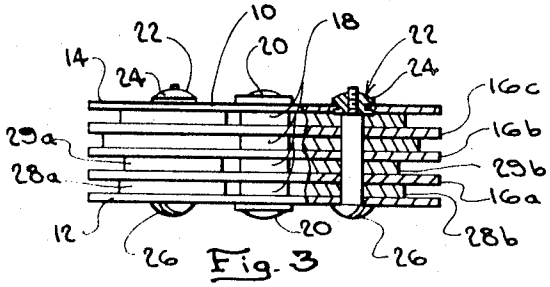


Fig. 3

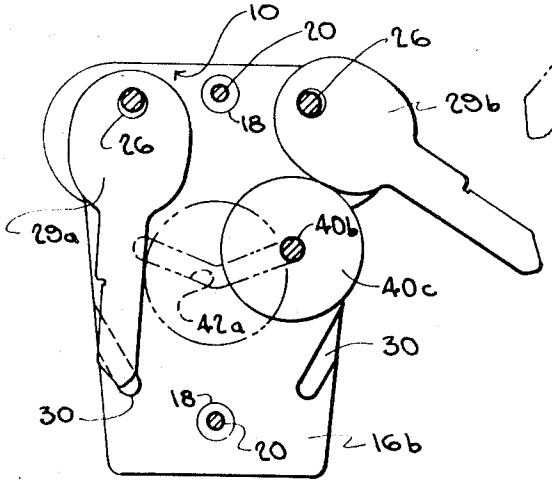


Fig. 5

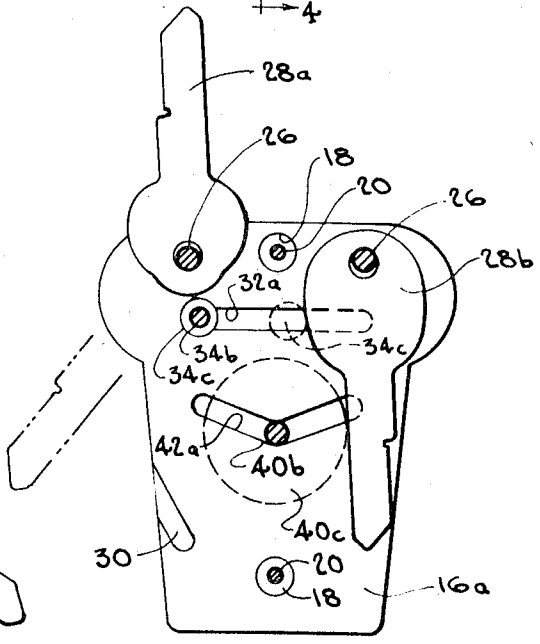


Fig. 4

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KEY CONTAINER

BACKGROUND OF THE INVENTION

1. Field of Invention

This invention pertains to key holders and in particular to key holders having means for selectively and easily withdrawing a desired key.

2. Description of Prior Art

Prior art key cases which provide for selective ejection of key members have included an undesirable number of parts and have been limited generally to a capacity of four keys. The present invention includes a minimum number of component parts having a simplified construction and includes the additional feature of having a capacity of a large number of keys arranged in pairs with each pair having an associated ejector button in horizontally spaced relation with other ejector buttons.

The invention includes a key holder having a plurality of keys compactly contained therein and selectively ejectable upon actuation of an associated sliding actuating button assembly. The key holder has a series of spacer members separating wall members to form a sandwich type slotted container having keys contained therein. Each slot has a raised detent portion engageable with the key contained in the associated slot to restrain the key when folded within the perimeter of the case.

It is an object of the present invention to provide a key case comprising key pairs arranged in a compact, back-to-back relationship with each key pair having an associated sliding ejector button assembly selectively engageable with each member of the key pair for key ejection when such use is desired.

It is another object of the present invention to provide a key case having a sliding key dispensing means co-acting with associated key members to provide a camming type of motion between the dispensing means and a selected key for effective ejection of the key.

Yet another object of the invention is to provide a key case having key dispensing and selection means positioned in slots and vertically spaced and operative upon associated key members.

Another object of the present invention is to provide a key case having a plurality of key slot portions having a key detent member contained therein to contain the key within the key case.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a side elevational view of the key case;

FIG. 2 is an end view of the key case illustrated in FIG. 1;

FIG. 3 is a top plan view, with portions cut away, of the case illustrated in FIG. 1;

FIG. 4 is a sectional view along line 4—4 of FIG. 2; and

FIG. 5 is a sectional view along line 5—5 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings and especially to FIG. 1 and FIG. 2, where there is illustrated the key case **10** of the present invention, it will be noticed that the case **10** includes outer cover members **12** and **14**. Positioned between the covers **12** and **14** are a series of divider wall members **16***a*, **16***b*, **16***c* which conform to the outline of the cover members. As illustrated in FIG. 3, the wall members are spaced from each other and from the cover members **12** and **14** by spacers **18** which are generally round doughnut-shaped members. The spacers **18** are positioned at the upper and lower portions of the key case and securely held in place by a rivet **20** or other convenient fastener. Thus it is noticed that the central portion of the key case **10** is securely fastened together in a sandwich type unit.

Located outboard of the fastener **20** are a pair of other fastener members designated generally as **22** in FIG. 3. This fastener **22** includes a threaded nut member **24** securely attached or snapped into the cover **14**. As shown in the cut away section of FIG. 3, a screw member **26** is received by nut member **24** in such a manner as to tightly join the nut **24** and screw **26** without compressing the covers **12, 14,** and the dividers **16***a*, **16***b*, **16***c*. Removably positioned about the screw portion **26** are the key members such as keys **28***a*, **28***b*, and **29***a*, **29***b*. Numerals have been omitted from the additional key members for purposes of clarity. The keys are loosely fitted about the shank of screw **26** and loosely fitted within their associated slot portions to be freely rotatably outwardly of the case **10.** A key detent **30** which includes a slightly raised portion of the covers **12, 14** and each divider member **16***a*, **16***b*, **16***c* projects into the slot containing a key and will bear upon the key constraining it within the perimeter of the case **10** to provide a compact key case when carried in a pocket or a handbag. It is contemplated that the detent portion **30** be made of a soft deflectable material such as a soft plastic or rubber to be able to restrain the key yet permit ease of key ejectment.

The structure associated with dispensing the keys comprises an externally accessible actuating button with a shank portion extending inwardly of the key case through an associated slot and having a cam portion internally of the key case. More particularly, with reference to FIGS. **1** and **4**, it is observed that the keys **28***a* and **28***b* located adjacent cover member **12** will be ejected from the case **10** by the dispensing or ejecting assembly **34.** The assembly **34** includes an externally accessible button or finger engaging member **34***a*, an inwardly extending shank portion **34***b*, and an internally positioned cam member **34***c*. The shank portion **34***b* extends through and slides within aligned slot portions **32, 32***a* in the cover member **12** and the divider wall portion **16***a* respectively. Finger engaging member **34***a* and cam member **34***c* have a diameter dimension larger than the opening of slot **32** and since both members are secured to the shank **34***b* it will be noticed that the ejector button assembly is thereby secure for sliding movement within the confines defined by the slot portions **32, 32***a*. It will be noticed, as shown in FIG. **2**, that a finger engaging button assembly **34'** is positioned opposite finger ejector **34.** Member **34'** is identical in structure and associated components, slots, etc. with the first described ejector **34.**

Keys sandwiched between the internal dividers **16***a*, **16***b*, **16***c* are accessed and ejected by the finger operatable dispensing and ejecting assembly buttons **40** and **40'**. Since the components are identical for both members, the structure of member **40** and its associated components only will be described. The keys-engaging assembly **40** includes the finger engageable button **40***a* fixedly attached to a shank portion **40***b*. Shank **40***b* has an inner cam portion **40***c* attached thereto and positioned in the open space between dividers **16***a* and **16***b*.

The shank portion 40*b* is positioned in and slides within slots 42 and 42*a* in the cover 12 and divider 16*a*, respectively. The diameter of both the button portion 40*a* and the cam portion 40*c* is greater than the opening of aligned slots 42, 42*a* to thereby constrain the key ejector button assembly in position in its associated slot.

OPERATION

Operational features include the ability to easily select and eject a single key at a time without distrubing the remaining keys. For example, to dispense the key 28*a* shown in FIGS. 1 and 4, button member 34*a* is engaged and moved to the left causing cam portion 34*c* to contact and pivot key 28*a* out of the case 10 for insertion into a lock. Similarly, upon sliding movement of the ejecting assembly to the right, key member 28*b* would be pivotally moved out of the case 10. To return the keys to the in case, stored, position the keys are manually returned to their respective slots where the keys will be retained in the stored position by the detent portions 30.

The inner pair of keys 29*a*, 29*b* are similarly pivoted outward of the carrying case body 10 by movement of their associated engaging member assembly 40 which includes the cam member 40*c*. The diameter of member 40 is larger than the diameter of the analogous part 34*c* associated with the outer pair of keys 28*a*, 28*b* because of spacing and geometric considerations but the basic operation is similar. As shown in FIG. 5, movement of cam member 40 to the right is accompanied by upward and outward movement within the perimeter of slot 42*a*. Due to the diameter of member 40*c* and the upward and outward configuration of slot 42*a* both ejecting members 34 and 40 will provide approximately the same degree of rotation of an associated key for the same lateral movement. Key ejector buttons 34′ and 40′ operate in the same manner as the ejector buttons 34 and 40.

The present depicted configuration illustrates one method of dispensing keys by a series of operating button assemblies in opposed relationship with regard to the key case 10; however, it is also within the scope of this invention to arrange the ejector button members all on the same cover and therefore all operable from the same side of the key case. The invention also is not limited to a key case capable of carrying four pairs of keys and it is understood that more or fewer could be provided by merely adding or removing dividers such as 16*a*, 16*b*, 16*c* and spacers 18. Also, the finger engageable buttons could be made of dissimilar diameters to make key selection possible in a darkened area.

Thus there is hereby provided a novel key case 10 which compactly and securely stores keys and provides for the selective ejection of a desired key.

What is claimed is:

1. A case adaptable for selective dispensing of keys and including:

sandwich panel and divider wall means including a pair of first and second outer wall portions and an intermediate wall portion spaced between the first and second portions to form a pair of generally parallel side by side first and second key housing sections,

slot portions associated with selected divider wall portions including a pair of vertically spaced transversely elongated first and second slots in the first wall portion and a third transversely elongated slot in the intermediate wall portion in general horizontal alignment with the second slot.

key mounting and pivoting means connecting with said divider wall means and positioned above said slot portions for supporting key means thereon,

key ejector means including a pair of first and second key ejector members each having finger engageable portions externally of said case and having key engageable cam portions internally of said case for dispensing of an associated key,

said first ejector member having a shank portion extending through said first slot and having its finger engageable portion externally of the first outer wall portion and having its key engageable cam portion in said first key housing section,

said second ejector member having a shank portion extending through said second and third slots and having its finger engageable portion externally of said first outer wall portion and having its cam portion in said second key housing section,

each ejector member being moved transversely to and fro attendant to moving its associated cam portion in the respective key housing section attendant to outward pivotal movement of an associated key transversely out of one side.

2. The invention according to claim 1, and

said divider wall means further including:

a pair of third and fourth divider wall portions to define with the second wall portion a pair of generally parallel third and fourth key housing sections generally parallel to the first and second key housing sections,

said fourth wall portion being an outer wall portion and including a pair of vertically spaced transversely elongated third and fourth slots therein and a fifth transversely elongated slot in the third inner wall portion in general horizontal alignment with the fourth slot,

said key ejector means including a pair of third and fourth key ejector members each having finger engageable portions externally of said case and having key engageable cam portions internally of said case for dispensing of an associated key,

said fourth ejector member having a shank portion extending through said fourth slot and having its finger engageable portion externally of the fourth outer wall portion and having its key engageable cam portion in said fourth key housing section,

said third ejector member having a shank portion extending through said fourth and third slots and having its finger engageable portion externally of said fourth outer wall portion and having its cam portion in said fourth key housing section.

3. The invention according to claim 1, and

key detent means for each key housing section deflectingly projecting outwardly of one of its divider wall portions into the key housing section tending to inhibit outward movement of an associated key until sufficient pressure is applied to the appropriate finger engageable portion.

4. The invention according to claim 1, and

said cam portion of each key ejector member including a key engaging disc member movable within the associated key housing section.

5. The invention according to claim 3, and

said detent means including downwardly and inwardly sloping portions projecting into said key housing section to restrain outward and upward rotation of an associated key.

6. The invention according to claim **1**, and said first slot being spaced above said second slot.

7. The invention according to claim **1**, and said second cam portion being spaced below said first cam portion and being of greater width than said first cam portion for movement of an associated key outwardly a distance equivalent to a distance moved by a key moved by the first cam portion.

8. The invention according to claim **2**, and said second and third slots being V-shaped and attendant to movement of said key in the first housing section outwardly and a similar distance to the distance moved of another key in the first housing section by its ejector member.

9. The invention according to claim **1**, and said second and third slots being V-shaped and attendant to movement of said key in the first housing section outwardly and a similar distance to the distance moved of another key in the first housing section by its ejector member.

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