Sept. 25, 1934. A. R. SLADE 1,974,547

KEY SHEATH

Original Filed May 26, 1930

Fig. 1.

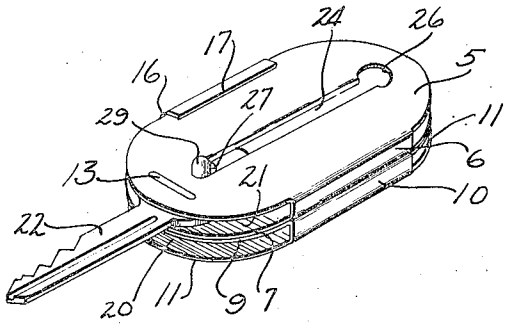


Fig. 2.

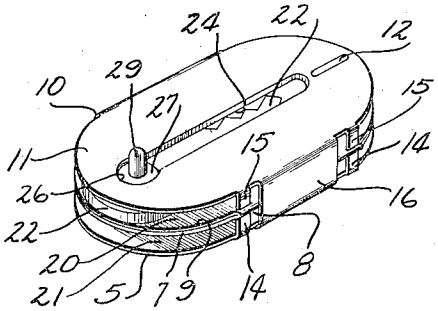


Fig. 3.

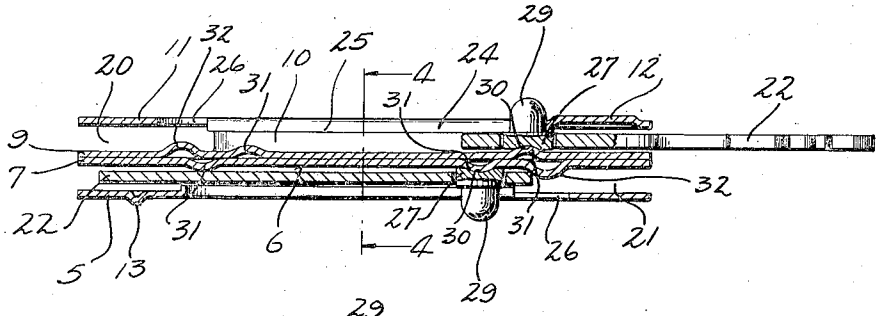
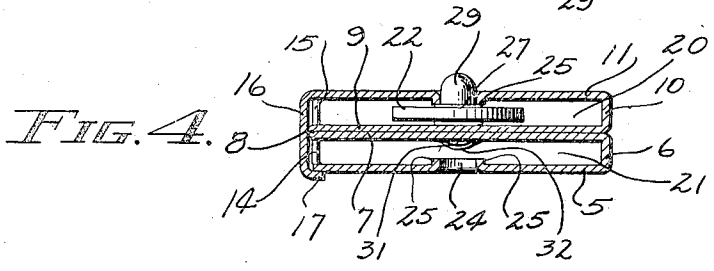


Fig. 4.



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KEY SHEATH

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Renewed December 5, 1932

14 Claims. (Cl. 59—96)

This invention relates to improvements in key sheaths.

It is the primary object of the invention to provide a novel and improved sheath for keys which is so organized that any one of a plurality of keys may be selectively advanced to position for use without requiring manipulation of buttons, snaps or other fastening means.

Other objects of the invention have reference to a novel and improved assembly by which manufacture of a key containing sheath is facilitated; and the provision of means for tangibly identifying to the touch of the operator the respective keys contained in the sheath; to provide a novel and improved arrangement for positioning the individual keys and providing for their manipulation; and to facilitate the insertion and removal of keys while avoiding accidental loss.

In the drawing:

Figure 1 is a perspective view of a key sheath showing one face thereof exposed and one key projected to position for use.

Figure 2 is a similar view showing the upper face of the device with both keys retracted.

Figure 3 is an enlarged detail view in longitudinal axial section.

Figure 4 is a detail view in enlarged transverse section taken in the plane indicated at 4—4 in Fig. 3.

Like parts are identified by the same reference characters throughout the several views.

Except for the retaining and manipulating pins which hold the keys the entire device comprises a single piece of sheet metal cut and formed in reverse convolutions to provide a number of separate compartments corresponding to the number of keys to be sheathed. For purposes of illustration I have shown only two such compartments.

One end of the strip of metal used in making up the device comprises a face plate 5 which is preferably arcuately rounded at its ends and joined by an integral connecting link 6 with an intermediate plate 7 corresponding in outline to the face plate 5. An integral hinge element 8 folded flat upon itself connects a second intermediate plate 9 with intermediate plate 7, the two plates being in face contact. Except for convenience in manufacture the plates 7 and 9 might be integral. They may be so considered for many aspects of the present invention.

Intermediate plate 9 is connected by an integral link member 10 with another face plate 11. The face plates 5 and 11 are tangibly differentiated to the touch of the operator by means of a longitudinal rib 12 on face plate 11 and a transverse rib 13 on face plate 5.

At one side of the device the connecting link elements 6 and 10 space the respective face plate from the intermediate face plates 7 and 9. At the other side of the device the face plates are provided with integral spacing fingers 14 and 15 which contact the hinge element 8, as clearly shown in Figures 2 and 4. The assembled relation of the parts is maintained by a retaining tongue 16 connected integrally to face plate 11 and upset at 17 about face plate 5, as clearly shown in Figures 1 and [illegible].

The compartments 20 and 21 are made to receive keys 22 of the ordinary flat type used in tumbler locks. Each of the face plates has a longitudinally extending slot 24 of which the margins are preferably flanged inwardly at 25, as shown in Figure 4. Opposite ends of the respective slots communicate respectively with the openings 26 of increased diameter sufficient to permit insertion of the trunnion members 27 which retain and facilitate manipulation of the several keys by engagement in the apertures of the handles thereof. A reduced extremity 29 on each trunnion member projects through slots 25 and is capable of sliding longitudinally in the slot to serve as a handle by means of which the operator can advance or retract the key within its compartment.

A concave depression 30 is formed in the bottom of each of the trunnion members 27, and bosses 31 of limited height are complementary to depressions 30 to define the extreme normal advance or retracted position of the trunnion and its associated key. The supplemental bosses 32 which register with opening 26 are larger and the trunnions can only with difficulty be forced upon these bosses. The opposition of bosses 32 to trunnion movement prevents the trunnion from accidentally moving into registry with openings 26 through which alone they are withdrawable for the insertion or removal of a key.

A device made in accordance with this invention constitutes simple and compact means for sheathing two keys such, for example, as are required for an automobile and a garage door. By noting the relation of each key to the tangibly designated face plate which covers it the operator is able, even in the dark, to select and instantly project, by means of handle 29, the key desired for any given purpose. When the key has performed its function it may be speedily retracted and will be held in retracted position by the interaction of the detent bosses 31 with the trunnion by which the key is retained. Thus the device makes buttons and snaps unnecessary to the manipulation of the key and, with only three component parts, it provides for the storage of two separate keys.

I claim:

1. A sheath for keys comprising an open ended receptacle in which a key is longitudinally reciprocable between retracted and extended positions, a detent means for impositively defining

one of said positions, said means comprising a boss on a wall of the receptacle and a recessed member movable with the key and arranged for interaction with said boss at the position so defined.

2. A sheath for keys comprising an open ended receptacle having a slotted wall, a trunnion receivable through the opening in the handle of the key reciprocable beneath said slot, and a handle of less diameter than the trunnion projecting therefrom through the slot and adapted to facilitate manipulation of the trunnion, said slot having an enlargement beyond the normal range of reciprocation of the trunnion through which the trunnion is removable.

3. A sheath for keys comprising an open ended receptacle having a slotted wall, a trunnion receivable through the opening in the handle of the key receprocable beneath said slot, and a handle of less diameter than the trunnion projecting therefrom through the slot and adapted to facilitate manipulation of the trunnion, said slot having an enlargement beyond the normal range of reciprocation of the trunnion through which the trunnion is removable, and detent means normally acting to restrain said trunnion from movement to a position in which it registers with the enlargement.

4. A sheath for keys comprising an open ended receptacle having a slotted wall, a trunnion reciprocable in said receptacle beneath the slot of said wall and provided with a handle projecting therethrough, and provided with a recess in its bottom, the wall of said receptacle opposing said slotted wall having a boss adapted in one trunnion position to interact with the recess therein, whereby to provide an impositive detent defining said position.

5. A sheath for keys comprising an open ended receptacle having a slotted wall, a trunnion reciprocable in said receptacle beneath the slot of said wall, and provided with a recess in its bottom, the wall of said receptacle opposing said slotted wall having a boss adapted in one trunnion position to interact with the recess therein, whereby to provide an impositive detent defining said position, and another boss in said opposite wall presenting a greater obstacle to movement of said trunnion into registry therewith, the slotted wall of said receptacle having an opening opposite said last mentioned boss of sufficient diameter to permit the passage of said trunnion through said wall.

6. A sheath for keys comprising a series of receptacles unitarily formed of sheet material and comprising directly superimposed intermediate walls, outer walls spaced therefrom, and integral means spacing and connecting said several walls.

7. A sheath for keys comprising a plurality of receptacles unitarily formed of a single sheet of material folded upon itself at a hinged portion to provide superimposed intermediate walls, means extending outwardly from said intermediate walls to provide integral link portions, outer walls integrally connected with said link portions and provided with integral fingers opposite said link portions and abutting said hinged portion, and a tongue connected with one of said outer walls and extending across the hinge portion of said intermediate walls to upset upon the other outer wall.

8. A sheath for keys comprising a plurality of receptacles formed integrally and each provided with four side walls and an open end, one wall of each receptacle being slotted and provided with a reciprocable key retaining device having a portion projecting through and guided by the slot.

9. A sheath for keys comprising a receptacle having a slotted wall and an open end through which a key is longitudinally reciprocable, and a shouldered key retaining member freely removable from engagement with the key when such key is in a given position, said member having a handle portion reciprocable in the slot of said wall, and an interior portion normally retained by said wall in engagement with the key, except when in said given position.

10. A sheath for keys comprising an open ended receptacle having a slotted wall, a key engaging trunnion adapted to be received in the handle opening of a key within the receptacle, said trunnion being of larger diameter than the slot in said wall, and having a reduced portion extending through the slot in a position to serve as a handle to facilitate manipulation of the trunnion and key, and means for permitting the removal and replacement of keys when the trunnion is in one position within the receptacle.

11. A sheath for keys comprising a series of receptacles formed of sheet material, and having directly superimposed intermediate walls, said receptacles each having an open end, and each adapted to receive a key in a position to be projected through said open end by a sliding movement, means associated with each receptacle for actuating the keys therein from the exterior, and detents associated with the intermediate walls for yieldingly retaining associated keys in normal position within the receptacle, subject to release under manual pressure exerted to release the key.

12. A sheath for keys comprising a plurality of substantially flat receptacles in face contact with each other, each receptacle being adapted to receive a key, and having an open end through which such key may be projected, exteriorly operable actuating means detachably connected with the respective keys, and detents yieldingly engageable with said actuating members to normally retain an associated key in full projected or retracted position.

13. A sheath for keys comprising an open ended key receiving receptacle having a longitudinally slotted wall, a key engaging and actuating member having a portion within the receptacle of greater diameter than said slot, and provided with a handle portion extending throuh the slot, and means for yieldingly opposing movement of the key from either of its extreme positions of projection or retraction, said means comprising a spherically rounded boss on one wall of the receptacle, and a corresponding recess in the key engaging actuating member.

14. A key housing comprising an elongated relatively flat hollow case provided with open ends and having longitudinal slots extending through each side wall, a detachable headed stud mounted in each slot to pivotally support a key whereby said housing may be held by one hand and the key pushed in or out thereof by pressure of the thumb of said hand upon the head of said stud.

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