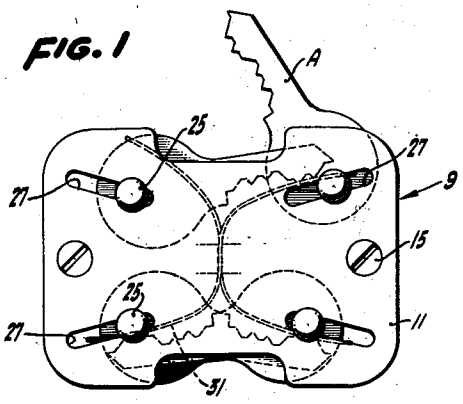
Sept. 22, 1953 J. H. HOAG 2,652,712

KEY CASE

Filed Aug. 6, 1951

FIG. 1



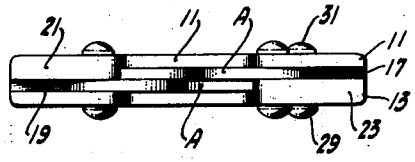


FIG. 2

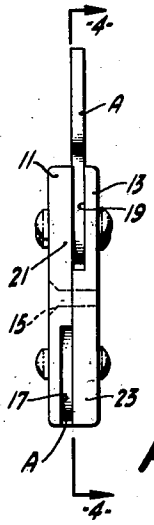


FIG. 3

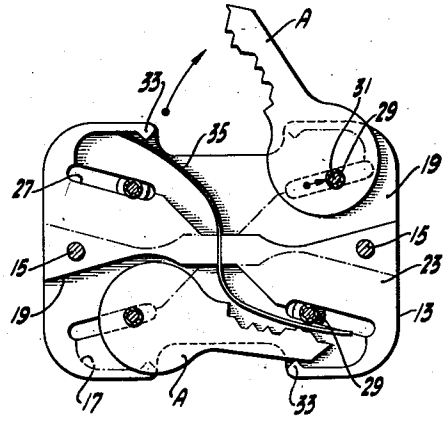


FIG. 4

INVENTOR.
JAMES H. HOAG

BY

Mellin and Hanscom

ATTORNEYS

Patented Sept. 22, 1953

2,652,712

UNITED STATES PATENT OFFICE

2,652,712

KEY CASE

James H. Hoag, San Francisco, Calif.

Application August 6, 1951, Serial No. 240,475

7 Claims. (Cl. 70—456)

1

This invention relates to a key case.

A main object of the present invention is to provide a new and novel key case and particularly a new and novel key case constructed so that a plurality of keys can be individually projected from the case for use by manipulation of mechanism on the key case.

A more particular object of the present invention is to provide a key case having a key case body movably receiving a key retainer which is adapted to receive and retain a key, said case having spring means for urging the key to snap outwardly to be projected from the body, and mechanism for releasably latching the key within the body responsive to movement of the key retainer from one position to another to release the key for outward movement under the influence of the spring means.

Various other objects of the present invention will be apparent from the following description taken in connection with the accompanying drawings, wherein:

Fig. 1 is a plan view of a key case embodying the concepts of the present invention and showing one of the keys being in a projected position.

Fig. 2 is a side view of the key case disclosed in Fig. 1.

Fig. 3 is an end view of the key case disclosed in Fig. 1.

Fig. 4 is a sectional view taken along line 4—4 of Fig. 3.

Referring to the accompanying drawings wherein similar reference characters designate similar parts throughout, the key case shown in the drawing includes a flat, generally rectangular body, generally indicated at 9, separable centrally into two identical parts 11 and 13. The key case body can assume many other shapes, although the shape shown is convenient and preferable. Parts 11 and 13 are secured together by any conventional means, such as machine screws 15, receivable through apertures in part 11 and threadedly received by part 13.

Each part of the body has two key-receiving recesses formed therein, one of the recesses being shown for part 11 in Figs. 2 and 3 and being given reference numeral 17, whereas both of the recesses are shown for part 13 in Fig. 4 and being given the reference numeral 19. The recesses of each part are reversely disposed with respect to one anothr, as is clearly apparent from Fig. 4 in case of recesses 19 for body part 13, and each recess is adapted to receive one key. Recesses 17 and 19 are formed to leave

2

lands or raised portions 21 for part 11, and 23 for part 13 which are disposed in engagement with one another, when the parts are assembled, as is clearly apparent from Figs. 2 and 3. Although parts 11 and 12 are of identical construction except for the threaded holes for receiving machine screws 15, it is apparent that when the parts are assembled, the raised portions 21 and 23 will not be in symmetrical engagement but in non-symmetrical engagement because of the face-to-face engagement of the body parts 11 and 13. By this non-symmetrical engagement, lands 21 and 23 serve to retain the keys within their respective recesses by engagement with the heads of the keys as is apparent from the phantom lines of land 21 shown in Fig. 4.

There are four key retainers 25 assuming the form of separable threaded grommet units respectively disposed in and slidable along four pairs of aligned slots 27 formed in the case body 9. The slots are arranged to converge generally centrally of the body so that when the key retainers are moved to their inwardmost positions, the keys, generally entitled A in the figures, are carried therewith and are completely disposed within the confines of the case. However, when any key retainer is moved to its outermost position, the key stem and a minor portion of the key head of the key carried by the retainer are projected from the key case to enable the ready insertion thereof into a key hole.

Each of the separable threaded grommet units includes a grommet nut 29 and a machine screw 31 (compare Figs. 2 and 4).

Formed on body parts 11 and 13 are four key retaining lugs 33, each being associated with the horizontally remote key retainer opposite it. Each retaining lug is spaced from its associated or corresponding key retainer a distance such that when a key retainer is disposed in the outer portion of its slots, a key thereon may be pivoted into the case past the associated lug, but as the key retainer is slipped or moved inwardly to the innermost position of its slots, the free end of the key can be moved under the associated lug so as to latch the key in place.

For automatically projecting the keys from the key case, a pair of leaf or strip springs 35 are provided and arranged in crossed fashion, as is clearly apparent from Fig. 1. Each spring is retained within its body part by fitting intermediate its ends within a narrow passageway formed across the raised portion of the associated body part, as is clearly apparent in Fig. 4 in the case

of strip spring 35. The ends of the strip springs are disposed behind the lugs 33 in yielding engagement with the lugs. When a key is snapped into the key case, the associated spring end is further deformed from its normal position to be effective to quickly urge the associated key to snap outwardly of the key case when the key retainer carrying the key is moved outwardly in its slots.

The strip springs are arranged, as shown in Fig. 4, so that when a key is disposed within the key case, the associated spring end applies a force to the key at a point generally opposite the associated lug, urging the key into engagement with the lug to set up a frictional force serving to frictionally retain the key within the key case. When it is desired to withdraw a selected key for use, the key retainer carrying the same is moved outwardly in its slots to clear the key of the associated locking lug, and the key, under the influence of the associated strip spring, will snap outwardly and be projected from the key case, as is shown in the case of the upper key in Fig. 4.

By the present invention a novel key case has been provided which is simple in construction, easy and inexpensive to manufacture and which, while containing a plurality of keys, is so constructed that upon simple manipulation of a selected key retainer, a selected key can be individually and separately projected from the key case for instant use. The projected key can then be readily snapped back into the key case by an inward pivoting movement and then inward shifting movement of key retainer on which the key is mounted.

While I have shown the preferred form of my invention, it is to be understood that various changes may be made in its construction by those skilled in the art without departing from the spirit of the invention, as defined in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A key case, comprising a key case body, a key retainer on the body for receiving and retaining a key, movable relative to the body from one position to another, said body having a stop member formed thereon engageable with the key when said key retainer is in said one position to latch the key within the body and disengageable with the key to release the same when the key retainer is moved to said another position, and a strip spring mounted in the body having a free end disposed in yielding engagement with the stop member when the key is projected from the body to be limited in its outward movement and operable when the key is pivoted into the body to urge the key outwardly of the key case body.

2. A key case, comprising a key case body separable centrally into two identical parts, each part having formed therein a pair of reversely disposed key receiving recesses, means for securing the parts of the body together with the recesses of each part being generally out of registry with the recesses of the opposed part to separate the keys to be contained within the case, and means on the case for receiving and retaining the keys operable to releasably latch the keys in the case and operable upon manipulation thereof to release the keys for projecting movement out of the case.

3. A key case, comprising a key case body separable centrally into two identical parts, each part having formed therein a pair of reversely disposed key receiving recesses, means for securing the parts of the body together with the recesses of each part being generally out of registry with the recesses of the opposed part to separate the keys to be contained within the case, and means on the case for receiving and retaining the keys operable to releasably latch the keys in the case and operable upon manipulation thereof to release the keys for projecting movement out of the case, spring means urging the keys to project from the case.

4. A key case, comprising a generally rectangular case body separable centrally into two identical parts, each part having formed thereon a pair of reversely disposed key-receiving recesses, means for securing the parts of the body together with the recesses of each part being generally out of registry with the recesses of the opposed parts to separate the keys to be contained within the body, four key retainers on the body being respectively disposed in and slidable along four pairs of aligned slots formed in the body adjacent the four corners of the body, spring means on the body arranged to urge the keys on the key retainers to project from the body, and means for releasably latching the key on each key retainer within the body, responsive to movement of a key retainer along its slots to release the key thereof for outward projecting movement under the influence of the spring means.

5. A key case, comprising a generally rectangular case body separable centrally into two identical parts, each part having formed thereon a pair of reversely disposed key-receiving recesses, means for securing the parts of the body together with the recesses of each part being generally out of registry with the recesses of the opposed parts to separate the keys to be contained within the body, four key retainers on the body being respectively disposed in and slidably along four pairs of aligned slots formed in the body adjacent the four corners of the body, means for releasably latching the key on each key retainer within the body, responsive to the movement of a key retainer along its slots to release the key thereof for outward projecting movement, said last named means comprising a stop lug formed on the body for each key receiving recess, and a pair of strip springs held intermediate their ends by the body and having their ends yieldably engaging the stop lugs when the keys are projected from the body and operable when the keys are disposed within the body to urge the keys outwardly of the key case body.

6. A key case, comprising a key case body, a key retainer on the body for receiving and retaining a key, and being disposed in a slot in the body and movable in the slot from one position to another, said body having a lateral opening therein to permit swinging movement of the key out of the body and back into the body, said body having a stop spaced from the retainer, when the retainer is disposed in its first position, a distance less than the length of the key from its retainer-receiving opening to its working end, whereby the key is prevented from outward swinging movement when the retainer is disposed in said first position but released when the retainer is shifted to its second position, and spring means for urging the key against the stop.

7. A key case, comprising a key case body, a key retainer on the body for receiving and retaining a key, and being disposed in a slot in the body and movable in the slot from one position to another, said body having a lateral opening therein

to permit swinging movement of the key out of the body and back into the body, said body having a stop spaced from the retainer, when the retainer is disposed in its first position, a distance less than the length of the key from its retainer-receiving opening to its working end, whereby the key is prevented from outward swinging movement when the retainer is disposed in said first position but released when the retainer is shifted to its second position, and spring means arranged for engagement with the working end of the key on the side thereof opposite the stop.

JAMES H. HOAG.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,777,929	McCaul	Oct. 7, 1930
1,903,372	Copell	Apr. 4, 1933
1,998,799	Woina et al.	Apr. 23, 1935
2,029,696	Bennett	Feb. 4, 1936
2,306,970	MacPherson et al.	Dec. 29, 1942
2,490,396	Leff	Dec. 6, 1949
2,554,817	Cuningham	May 29, 1951