

May 20, 1952

F. OLDAL
KEY RETAINING BUCKLE

2,597,170

Filed March 9, 1951

2 SHEETS—SHEET 1

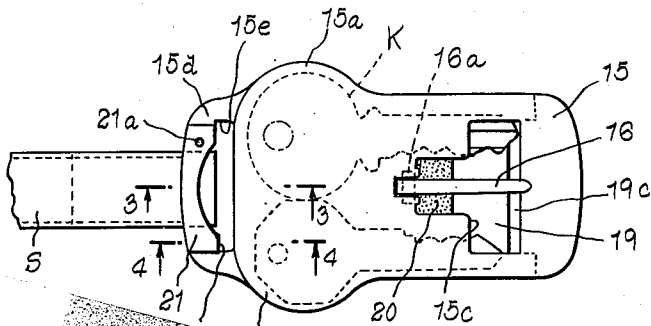


Fig. 1.

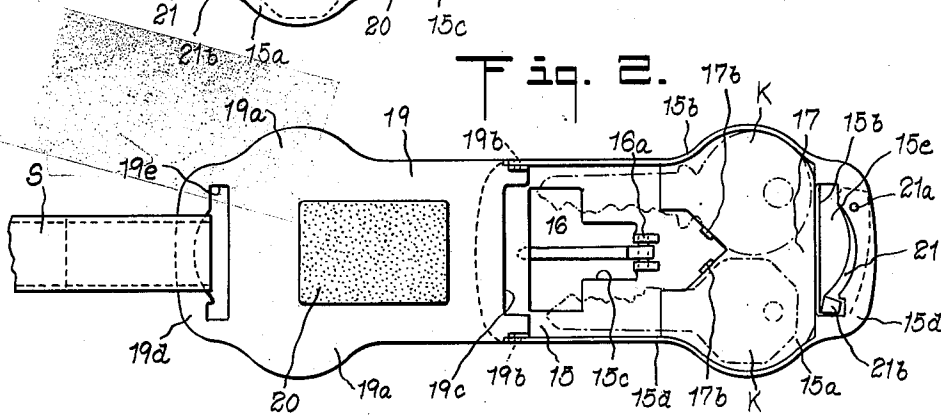


Fig. 2.

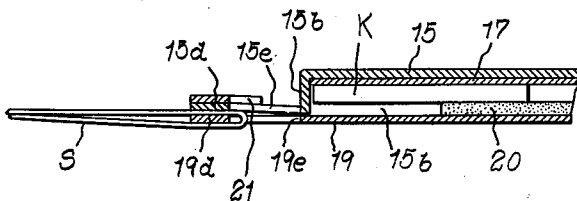


Fig. 3.

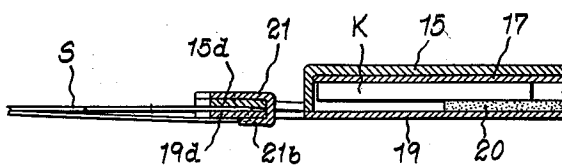


Fig. 4.

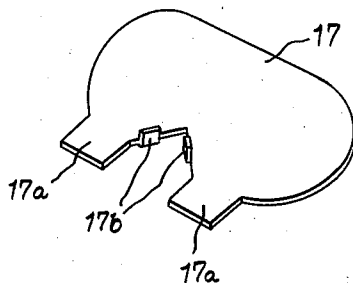


Fig. 5.

INVENTOR.
FRANK OLDAL
BY
Davis, Hope, Faircliff
ATTORNEYS

May 20, 1952

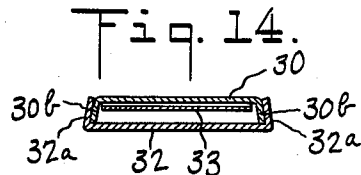
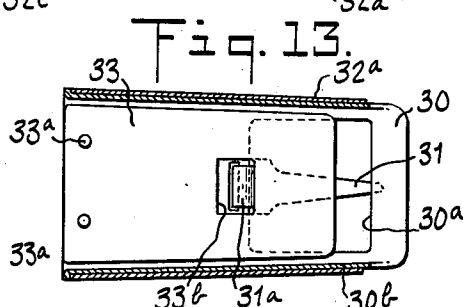
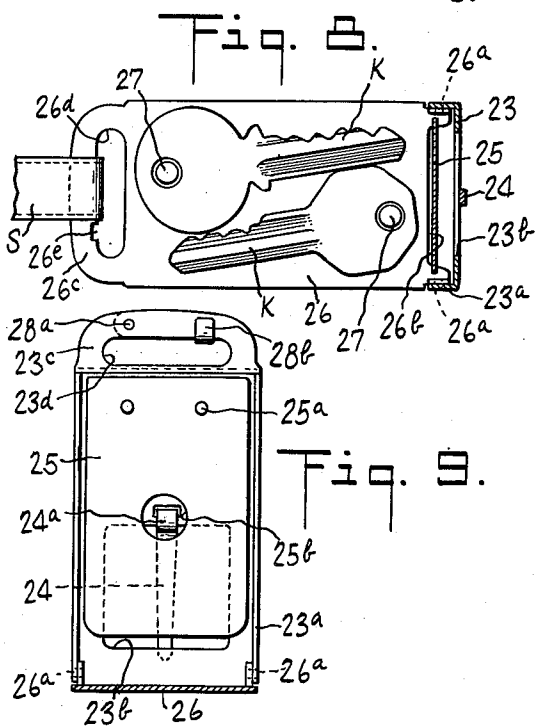
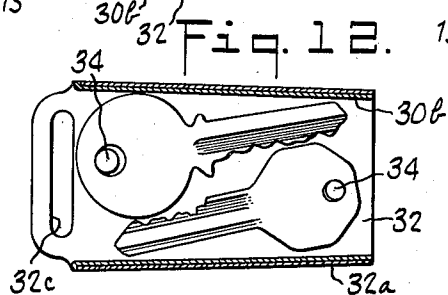
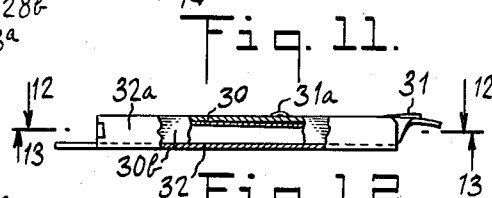
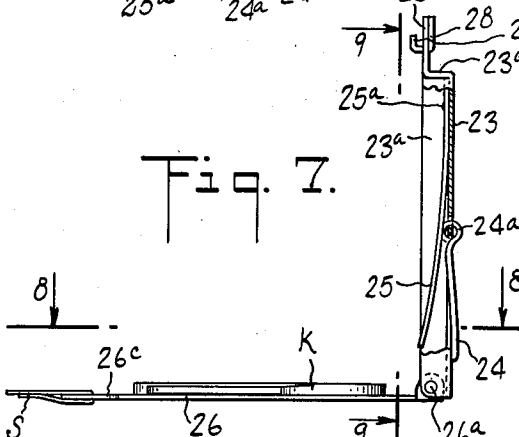
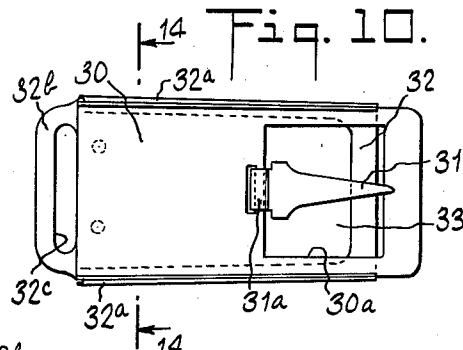
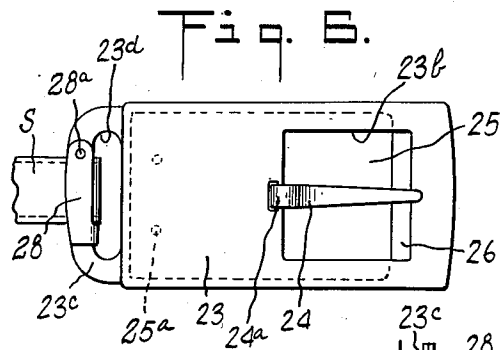
F. OLDAL

2,597,170

KEY RETAINING BUCKLE

Filed March 9, 1951

2 SHEETS—SHEET 2



INVENTOR.
FRANK OLDAL
BY
Davis, Noyes & Fairchild
ATTORNEYS

UNITED STATES PATENT OFFICE

2,597,170

KEY RETAINING BUCKLE

Frank Oldal, Yonkers, N. Y.

Application March 9, 1951, Serial No. 214,699

9 Claims. (Cl. 224-26)

1

This invention relates to belt buckles of the type adapted to retain a key, such as a house key, car ignition key, etc.

It has been proposed heretofore to provide belt buckles having recesses for retaining keys. However, belt buckles of this type as previously devised are objectionable for various reasons, among which are the intricacy of their construction, the difficulty encountered in obtaining access to the key so that it can be used, and their failure to hold the key securely and prevent rattling of the key in the buckle.

The present invention is directed primarily to the provision of an improved key-retaining buckle, which overcomes the above-noted objections.

A belt buckle made according to the invention comprises a pair of cover plates relatively movable into and out of opposed relation wherein the plates define between them a key-retaining recess. One of the plates has a belt-receiving opening, and the plates form at one end a belt-receiving slot communicating with this opening by way of the recess. A belt-retaining prong is pivoted on the plate having this opening and is adapted to extend over the opening and through a hole in an end portion of the belt passing through the slot, the recess and the opening. The other end of the belt can be connected to the buckle by a belt-securing device at the end of the plate remote from the slot. A flexible key-retaining element is mounted in the recess on one of the plates and is engageable with a key in the recess when the plates are in their opposed relation, whereby the flexible element urges the key against the other plate. The plates have releasable interengaging means for securing them in their opposed relation, so that the key is clamped in the recess by the flexible element. Preferably, a key-locating pin in the recess projects toward the flexible element from the opposing recess, to supplement the action of the flexible element in retaining the key in fixed position in the recess.

With the new construction, the key-retaining recess and the flexible element therein do not interfere in any way with the operation of the buckle to join the end portions of the belt. The free end portion of the belt is simply inserted through the end slot between the plates and through the adjacent end of the key recess and the opening in one of the plates, whereupon the prong is inserted through the proper hole in the belt to hold the belt end portion. The key in the recess may be removed without unbuckling

2

the belt, by merely moving the plates out of their opposed relation and thereby opening the recess. This opening movement of the plates may be effected by swinging one of the plates on a hinge through which it is connected to the other plate, or by sliding one of the plates along the other plate so as to disengage inter-locking flanges on the plates. When the key has been inserted in the recess, it is held therein by the releasable means which hold the plates in their opposed relation, and in this position of the plates the flexible element urges the key against one of the plates so as to prevent rattling of the key in the buckle.

For a better understanding of the invention reference may be had to the accompanying drawing, in which:

Fig. 1 is a front view of one form of the new buckle;

Fig. 2 is a view similar to Fig. 1 but showing the cover plates swung to the open position;

Figs. 3 and 4 are sectional views on the lines 3-3 and 4-4 in Fig. 1;

Fig. 5 is a perspective view of the key-retaining insert;

Fig. 6 is a front view of another form of the new buckle;

Fig. 7 is a side view, partly in section, of the buckle illustrated in Fig. 6 but showing the cover plates in their open position;

Figs. 8 and 9 are sectional views on the lines 8-8 and 9-9 in Fig. 7;

Fig. 10 is a front view of still another form of the buckle;

Fig. 11 is a side view of the buckle illustrated in Fig. 10, with parts broken away;

Figs. 12 and 13 are sectional views on the lines 12-12 and 13-13 in Fig. 11, and

Fig. 14 is a sectional view on the line 14-14 in Fig. 10.

Referring to Figs. 1 through 5, the buckle there shown comprises a front cover plate 15, which, at one end portion, is provided with rounded enlargements 15a on its sides. The plate 15 has a flange 15b extending along its side edges and along the edge at the enlarged end of this plate. The flange 15b extends rearward from the face of the plate 15 so as to form side walls of the plate. In other words, the plate forms a shallow recess defined by the flange 15b, except at the reduced end of the plate where the flange 15b is omitted. The plate 15 has at its reduced end portion a T-shaped opening 15c. A prong 16 is pivotally mounted on the plate 15 at the base of the stem of the T-shaped opening 15c, as

3

shown at 16a. The prong extends longitudinally of the plate, and its free end portion is adapted to seat on the outer face of the plate 15 at the edge of the opening 15c opposite the pivot 16a.

A thin insert 17 is removably mounted in the enlarged portion of the plate 15 and is shaped to fit closely against the flanges 15b, whereby the insert is held in position in this plate. The insert has a pair of legs 17a extending into the reduced portion of the plate 15, and near the juncture of these legs with the main portion of the insert the latter is provided with raised detents 17b.

A rear cover plate 19 is provided laterally with rounded enlargements 19a corresponding to the enlargements of the front plate. The reduced ends of the plates 15 and 19 are hinged together by pivot pins 19b, which may be arranged to extend through the flanges 15b and suitable ears on the plate 19. The plates 15 and 19 are of similar configuration and size, so that when the plates are swung to their closed positions on the hinges 19b, as shown in Fig. 1, the edges of the plates are in alignment. At its reduced or hinged end, the rear plate 19 is recessed, as shown at 19c, to facilitate insertion of the free end of the belt or strap through the slot between the plates at these ends and through the opening 15c. When the free end of the belt is thus inserted, the prong 16 may be inserted through a hole in the belt so as to secure the belt in the usual manner. The cushion 20, which may be made of felt or rubber, for example, is secured to the inside of the rear plate 19, as by means of an adhesive.

The cover plates 15 and 19, when in their closed positions, are held together by releasable interengaging means comprising extensions 15d and 19d of the enlarged ends of the respective plates, and a locking lever 21 pivotally mounted on the extension 15d, as shown at 21a. The extensions 15d and 19d have aligned openings 15e and 19e, respectively, through which a hook 21b extends from the free end of the lever 21. With the lever 21 in its locking position, as shown in Fig. 1, the hook 21b extends through the aligned openings 15e and 19e and over the outer surface of the rear plate extension 19d (Fig. 4), thereby locking the free or enlarged ends of the plates together. To swing the plates to their open position on hinges 19b, as shown in Fig. 2, it is necessary only to swing the free end of lever 21 to the right, as shown in Fig. 1, so that the hook 21b disengages the extension 19d of the rear plate, and then draw the free or enlarged end of the front plate 15 away from the rear plate.

In the use of the new buckle, one end of the strap S is passed through the opening 19e of the rear plate extension 19d and permanently secured in a loop, as shown in Figs. 1 through 4. Thus, when the cover plates 15 and 19 are closed and locked by the lever 21, one part of the loop at the permanently-fixed end of the strap will lie between the plate extensions 15d and 19d. The free end of the strap may then be inserted through the space between the hinged ends of the plates, by way of the recess 19c, and through the front plate opening 19e, so that the strap may be secured by means of the prong 16, as previously mentioned. Before the plate members are closed, the keys K are placed in the front plate 15 on the insert 17, where they are held in position by the detents or locating pins 17b. The enlarged portion 15a of the front plate will accommodate the enlarged portions of two

4

keys, the reduced portions of the keys extending into the reduced portions of the front plate. When the plates are closed and locked, the cushion 20 is held compressed against the keys K, thereby preventing rattling of the keys in the buckle. The keys may be removed from the buckle, even without detaching the free end of the strap S from the prong 16, by simply releasing the locking lever 21 and swinging the front plate 15 to its open position on the hinges 19b.

The buckle illustrated in Figs. 6 through 9 comprises front and rear cover plates 23 and 26, respectively, of rectangular form. The front plate 23 has marginal flanges 23a extending rearward toward the plate 26, thus forming lateral walls of a recess in the front plate. A prong 24 is pivoted at one end to the front plate, as shown at 24a, and extends longitudinally across a square opening 23b in this plate, the free end of the prong being adapted to seat on one end portion of the plate. The recess in plate 23 contains a leaf spring 25 suitably secured at one end of this plate, as shown at 25a.

The plates 23 and 26 are hinged together by pivot pins 26a located at the ends of the plates adjacent the free end of the prong 24. The flange 23a is omitted at the hinged end of the plate 23, to allow insertion of the free end of the strap between the plates, by way of a recess 26b in the rear plate, and through the opening 23b, so that the strap can be secured in the usual manner by the prong 24. The rear plate 26 has key-locating pins 27 extending into the recess in the front plate, the keys being located by placing them so that the pins 27 extend through the usual holes in the enlarged portions of the keys, as shown in Fig. 8.

The free ends of the cover plates 23 and 26 have extensions 23c and 26c, respectively, provided with openings 23d and 26d. One end of the strap S is passed through the opening 26d and permanently secured in a loop. The cover plates are adapted to be locked in their closed position by a locking lever 28 pivotally mounted at 28a on the front plate extension 23c. At its free end, the lever 28 has a hook 28b extending through the openings 23d and 26d. When the lever 28 is in its locking position, the hook 28b fits into a slot 26e in the rear plate extension 26c and extends along the outer surface of this extension. The plates may be unlocked by swinging the lever 28 to disengage the hook 28b from the rear plate 26. In the closed position of the cover plates, the leaf spring 25 is held against the keys K and presses them against the rear plate 26 to prevent rattling of the keys. The leaf spring 25 has a central hole 25b overlying the hinge 24a, so as to allow free movement of the prong 24 when the leaf spring is deflected against the front cover plate.

Referring to Figs. 10 through 14, the buckle there shown comprises a front cover plate 30 having at one end a square opening 30a. A prong 31 extends longitudinally across the opening 30a and is hinged at one end to the plate 30, as shown at 31a. The plate 30 has side flanges 30b extending toward a rear cover plate 32, the flanges 30b being adapted to fit closely within side flanges 32a on the rear plate, as shown particularly in Fig. 14. The plates 30 and 32 are tapered slightly toward the pronged end of the plate 30, so that they may be forced together by a longitudinal sliding action to form a tight fit. The flanges 30b and 32a are dovetailed, as shown in Fig. 14, to hold the plates

5

6

together. A leaf spring 33 is located between the cover plates and is secured at one end to the larger end of the front plate 30, as shown at 33a. The spring 33 has an opening 33b overlying the hinge 31a so as to prevent interference with the movement of prong 31 when the leaf spring is deflected toward the plate 30. The rear plate 32 has key-locating pins 34 similar to the pins 27.

At its larger end, the rear plate 32 has an extension 32b formed with an opening 32c for one end of the strap (not shown), which is inserted through the opening 32c and secured permanently in a loop, as described in connection with the embodiments illustrated in Figs. 1 through 9.

The plates 30 and 32 can be disconnected by simply sliding the plate 30 to the left (Fig. 1) on the plate 32 until the flanges 30b are withdrawn from the space between the flanges 32a. The plates are connected, of course, by the reverse movement. When the plates are connected, the leaf spring 33 presses the keys against the rear plate 32 to hold them securely in position.

I claim:

1. A belt buckle comprising a pair of cover plates relatively movable into and out of opposed relation wherein said plates define between them a key-retaining recess, one plate having a belt-receiving opening, the plates forming at one end thereof a belt-receiving slot communicating with said opening through the recess, a belt-retaining prong pivoted on said one plate and adapted to extend over said opening, a belt-securing device at the end of said plates remote from the slot, a flexible key-retaining element in the recess on one of the plates and engageable with a key in said recess when the plates are in said opposed relation, to urge the key against the other plate, and releasable means on the plates for securing them in said opposed relation.

2. A belt buckle according to claim 1, comprising also a key-retaining pin in said recess projecting toward said flexible element from the opposing plate.

3. A belt buckle according to claim 1, comprising also a hinged connection between the plates adjacent said slot for accommodating said relative movement of the plates.

4. A belt buckle according to claim 1, in which said releasable means include a member movably mounted on one of the plates and having a part engageable with said belt-securing device to hold the plates in said opposed relation.

5. A belt buckle according to claim 1, comprising also a hinged connection between the plates adjacent said slot, for accommodating said relative movement of the plates, said releasable means including a member movably mounted on one of the plates and having a part engageable with said belt-securing device to hold the plates in said opposed relation.

6. A belt buckle according to claim 1, comprising also an insert removably mounted in the recess on the plate opposite said flexible element, and a key-retaining pin in the recess projecting from said insert toward the flexible element.

7. A belt buckle according to claim 1, in which said flexible element is a rubber-like cushion.

8. A belt buckle according to claim 1, in which said flexible element is a leaf spring.

9. A belt buckle according to claim 1, in which said releasable means include flanges extending along the sides of each plate and in sliding engagement with the flanges on the other plate.

FRANK OLDAL.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,339,297	Segal	Jan. 18, 1944