

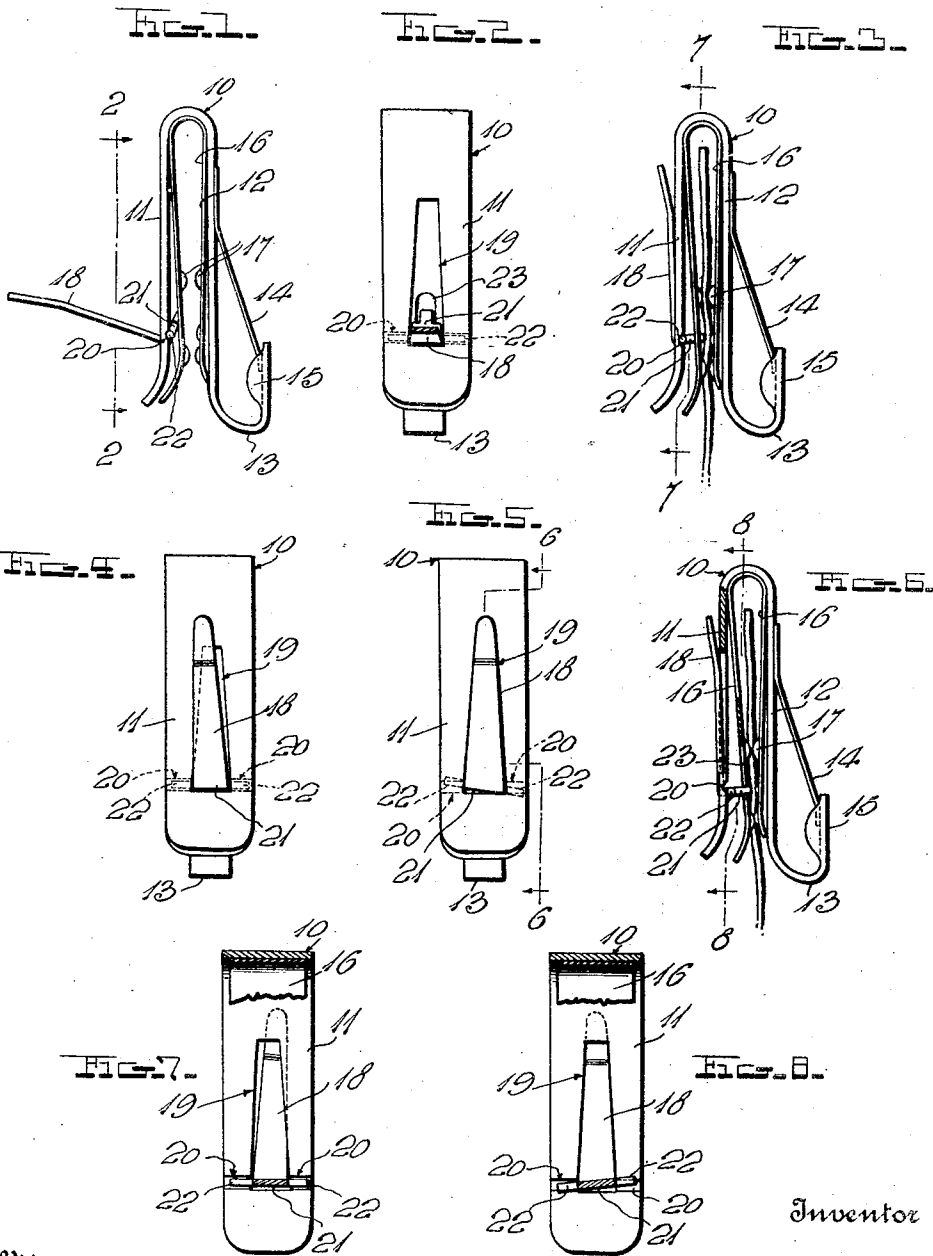
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A. McI. KILBY

CLASP

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Witness
H. Woodard

Inventor

A. M. Kilby

By *A. B. Wilson*
Attorneys

UNITED STATES PATENT OFFICE.

ANGUS McISAAC KILBY, OF BANGOR, MAINE.

CLASP.

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The invention relates primarily to improvements in clasps which are adapted for use to connect key rings with articles of apparel, such as belts or the waist bands of trousers.

The device is of a nature embodying a clamping lever which, when forced to a closed position, tightly holds the clasp applied to the belt or the like, but when swung outwardly permits detachment of the clasp from the article of apparel. It is the object of the invention to provide a clasp of this general type in which novel provision is made for holding the clamping lever in its effective position.

With the foregoing in view, the invention resides in the novel subject matter herein-after described and claimed, the description being supplemented by the accompanying drawing.

Fig. 1 is an edge view of the clasp with the clamping lever swung outwardly to released position.

Fig. 2 is a sectional view on line 2—2 of Fig. 1.

Fig. 3 is a view similar to Fig. 1 but illustrating the clamping lever swung almost to its closed effective position.

Fig. 4 is a front elevation of the clasp with the lever in the position of Fig. 3.

Fig. 5 is a view similar to Fig. 4 but showing the clamping lever in its fully closed or operative position.

Fig. 6 is an edge view partly in section as indicated by line 6—6 of Fig. 5.

Figs. 7 and 8 are sectional views on the correspondingly numbered lines of Figs. 3 and 6 respectively.

In the drawings above briefly described, 10 designates a U-shaped body whose arms 11 and 12 are adapted to straddle a belt, the waist band of a pair of trousers, or other article of apparel. In the present showing, one end of one of the arms (12) is provided with a hook 13 for engagement with a key-ring or other desired article, a spring 14 and a guard 15 therefor, being employed to prevent accidental loss of the ring or the like from the body 10.

Between the arms of the body 10, a U-shaped spring 16 is mounted, said spring having appropriate projections 17 to grip the article of apparel upon which the device is used. A clamping lever 18 is provided for either moving this spring into clamping relation with the belt or the like, or for

releasing the device for detachment. This lever is mounted and held in operative position, in a novel manner.

The outer arm 11 of the body 10 is formed with a longitudinal slot 19 and the inner side of this arm is provided, at the lower end of said slot, with two alined grooves 20 which are disposed at right angles to the length of the slot. The lever 18 is provided with an angular lower end 21 which passes through the lower end of the slot 19 and is provided with laterally projecting axially alined trunnions 22 which are seated in the grooves 20, the common axis of said trunnions being somewhat oblique to the length of the lever 18, as most clearly shown in Figs. 4, 5, 7 and 8. It will thus be seen that when the lever 18 is forced almost to its closed or operative position (Figs. 3, 4 and 7), the major portion of said lever will not enter the slot 19. It is thus necessitated, in order to move said lever completely to operative position, that it shall be laterally tilted from the position of Figs. 4 and 7 to that disclosed in Figs. 5 and 8. This movement, which permits the body portion of the lever 18 to enter the slot 19, causes the trunnions 22 to ride up upon the transversely curved side walls of the grooves 20, as will be clear from Figs. 5, 6 and 8. When the parts assume this relation, the trunnions are not entirely out of the grooves and their tendency to return into engagement with the bottoms or closed sides of said grooves, causes one edge of the lever 18 to force tightly against the corresponding edge of the slot 19, thus tightly holding the lever in the slot by friction. In this connection, attention may be invited to the fact that the inner end 21 of the lever 18 has a reduced extremity engaging a slot 23 in the outer arm of the spring 16, so that as the lever is operated to force this spring into clamping relation with a belt or the like, the latter exerts such outward force on the lever, as to urge its trunnions 22 to move back from the position of Fig. 8 to that of Fig. 7. Thus, there is a tendency to swing the lever 18 toward the position shown in Figs. 4 and 7, but as the major portion of said lever is then within the slot 18, as shown in Fig. 6, this movement can not take place, and as the tendency of the lever to move in this manner is resisted by one of the edge walls of the slot 19, this edge wall and the lever are held in tight contact with each other so

that the lever is effectively held in its operative position and cannot accidentally release.

The device is simple and inexpensive, yet is efficient and very desirable, and with its use, the danger of losing keys or other articles carried by it, is reduced to the minimum.

I claim:—

A device of the class described comprising a U-shaped body to straddle an article of apparel, one arm of said body having a longitudinal slot and being formed in its inner side with two alined grooves at one end of and at right angles to the length of said slot, the sides of said grooves diverging from the groove bottoms to the open sides of said grooves, a clamping lever having an angular end passing through said one end of said slot, said angular end of the lever being provided with laterally projecting axially alined trunnions rockably seated in said grooves, the common axis of said

trunnions being slightly oblique to the length of the lever, necessitating canting of said lever as it is forced to closed position into said slot, said canting causing lateral sliding of the trunnions on the groove sides away from the groove bottoms, whereby the outward pressure of the clamped article on said lever will tend to force said trunnions again toward the groove bottoms and will consequently exert a swinging tendency on the lever toward one wall of the slot, causing said lever to frictionally engage said slot wall and prevent accidental swinging of the lever to released position, and a spring member carried by the aforesaid U-shaped body and engaging the lever to yieldably urge its trunnions toward the groove bottoms.

In testimony whereof I have hereunto affixed my signature.

ANGUS McISAAC KILBY.