

June 16, 1942.

J. C. DAVIO

2,286,265

KEY RETAINING MEANS

Filed June 22, 1940

Fig. 1.

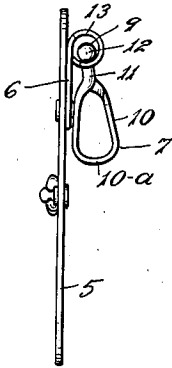


Fig. 2.

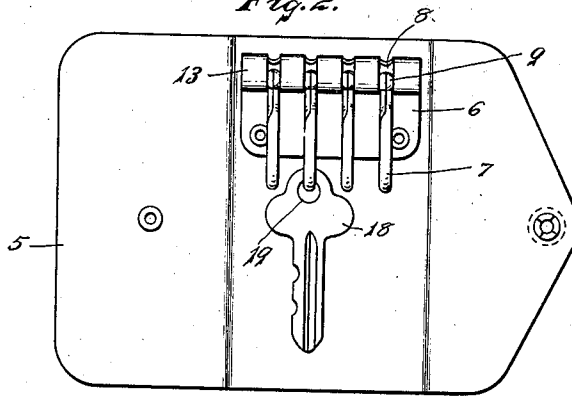


Fig. 3.

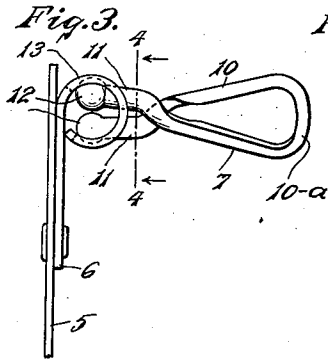


Fig. 4.

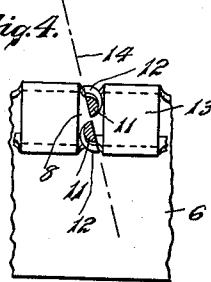


Fig. 5.

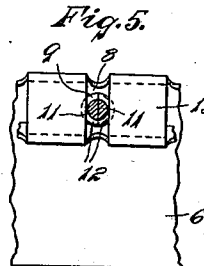


Fig. 6.



Fig. 7.

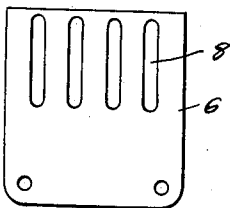


Fig. 8.

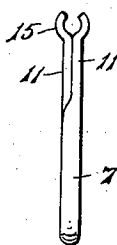


Fig. 9.

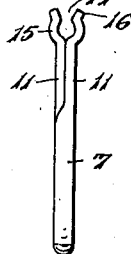


Fig. 10.

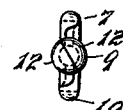


Fig. 11.

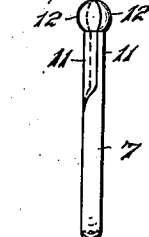


Fig. 12.

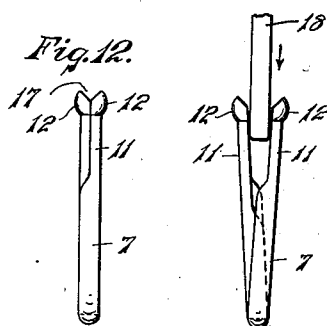
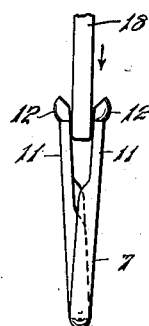


Fig. 13.



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2,286,265

KEY RETAINING MEANS

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Application June 22, 1940, Serial No. 341,974

9 Claims. (Cl. 70-456)

This invention relates to key retainers and involves certain novel improvements and advantages over such devices as particularly described in patent to Buxton, No. 1,968,789, August 7, 1934.

An object of this invention is to provide a key 5 retainer having a key holding means including a hook which can be readily detached, for mounting or removing a key therefrom, and replaced into the retainer without requiring a locking member in said retainer or the operation thereof, 10 such as shown in the above described patent.

A further object of this invention is to provide a key retainer having novel advantages in the operation thereof and which is of a simplified construction whereby the cost thereof is sub- 15 stantially reduced.

Further objects of the invention will be clearly understood from the following description and from the accompanying drawing in which:

Fig. 1 is a side view of my invention shown in 20 opened position.

Fig. 2 is a front view of the same.

Fig. 3 is a side view of a portion thereof, on an enlarged scale, and showing the operation of the key hooks when detaching or attaching it to the 25 retainer.

Fig. 4 is a fragmentary front view of line 4-4 of Fig. 3.

Fig. 5 is a similar view illustrating the hook in attached position relative to the retainer. 30

Fig. 6 is a front view of my improved hook on an enlarged scale.

Fig. 7 is a plan view of a blank for the hook supporting member.

Fig. 8 is a side view on an enlarged scale of a modified form of a hook embodying my invention. 35

Fig. 9 is a similar view of a further modified form.

Figs. 10 and 11 are, respectively, a top and side view of a further modification. 40

Fig. 12 is a similar view illustrating a still further modification.

Fig. 13 is a similar view showing the operation of the said hook when inserting a key thereon. 45

As illustrated in the drawing, the numeral 5 denotes the casing of a key retainer, of a conventional form, which is usually made of leather or other suitable material, and 6 denotes a hook 50 support for supporting the key hooks 7 which are swivelly mounted in slots 8 in said support.

The said hooks preferably comprise a ball shaped head 9, which is larger than the slots 8 55

so that they cannot pass therethrough when the hooks are in their normal position.

The hooks 7 are preferably made of half-round material and bent to form the body portion 10 having extensions 11 on which are formed semi-spherical portions 12 forming one-half of the ball comprising the head 9 of said hooks. The extensions 11 are twisted on the body 10 so that the flat surfaces of said material 10 are brought into contact on a line extending in the direction of the connecting portion 10a and thereby completing the ball for the head.

It will be noted that the support 6 is looped to provide a tubular portion 13 which is intercepted by the slots 8. The said tubular portion being larger than the heads 9 so as to receive said heads when inserted through the slots 8, as hereinafter described.

As illustrated in Fig. 3 of the drawing, when it is desired to detach one of my improved hooks from the support 13, the side portions of the body 10 are squeezed together, thereby causing the extensions 11 to move apart and separate the opposite halves of the head 9 or semi-spherical portions 12. When these halves have been separated the hook is turned slightly to the left, to the position indicated by the line 14 in Fig. 4, and thereby permitting the passage of said separated halves through the slot 8.

When the said hook has been inserted through the slot and then released, the ball halves 12 will come together to their normal position, as clearly illustrated in Figures 5 and 6 of the drawing, and thereby complete the form of the ball head. The said head, being larger than the width of the slot, is normally incapable of passing through the said slot; thus causing the hook to be retained in the support 6 with the head inside of the tubular portion 13 and the hook thereby suspended in swiveling position. 40

The operation of the hook, as illustrated in Figures 3 and 4 above described, is rendered possible by disposing the line of separation for the ball head substantially in line with the direction of movement of the sides of the body portion 10. It will be readily understood that if the said lines of separation were extended crosswise to the hook, as illustrated in the patent above mentioned, it would be impossible to open the head by pressing the side portions of the body member towards each other in order to insert the same through the slots 10. 45

In the modifications illustrated in Figures 8 and 9, the semi-spherical head halves may be formed by rounding the ends of the portions 11,

as at 15. These ends may also be extended, as illustrated in 16 at Fig. 9, to provide a V-shaped mouth portion 17 to facilitate the entry of a key into said hook. This V-shape may also be included in the preferred form of my invention, as illustrated in Fig. 12, so that a key 18 may be inserted by simply positioning it in the said V-shape mouth and forcing it downwardly between the extensions 11 and then turning the key to insert one end of said hook through the hole 19 in the key. It will be seen that the side portions of the body 10 are flexible, in a direction away from each other and on a line extending through the hook, as well as on a line extending sidewise therethrough.

In the form illustrated in Fig. 10, the line of division between the two halves of the ball shaped head, as well as the extensions 11, is disposed at an angle to the direction of movement of the side portions of the body when forced towards each other, as illustrated in Fig. 3, so that the two halves of said head may be separated and brought into the position illustrated in Fig. 4 to permit passage of said halves through the slot 8 without requiring turning of the hook to the angle indicated by line 14.

It will be understood from the above description that by my invention I have provided a key retainer having a novel form of a hook which can be swively attached to a holder therein, or detached therefrom, without requiring the provision of separate means for locking the said hooks in attached position or releasing the same from the support.

In addition to the notches 17, my improved hook also provides further means for facilitating the insertion thereof through the hole 19 of a key by the way of simply squeezing the side portions 10 of the hook towards each other, until the extensions 11 are sufficiently separated, and then inserting one of the extensions through said hole; thus my improved hook may be attached to a key by either one of the two methods above described and thereby provides a choice of whichever method may be preferred.

I claim:

1. A key retainer comprising a case having a support, a slot of uniform width in said support, a hook, an enlarged portion on said hook for swively mounting the same to said support by means of said slot, and means comprising the division of said enlarged portion on a line extending crosswise to said hook for permitting said enlarged portion to be separated by forcing the sides of said hook inwardly to permit passage of said head through said slot to connect said hook to said support.

2. A key retainer comprising a support, a slot in said support, a hook, an enlarged portion of said hook divided crosswise thereto and means operable, upon squeezing the sides of said hook towards each other, to separate said enlarged portion and thereby permit passage thereof through said slot for connecting said hook to said support.

3. A key retainer comprising a support having a tubular portion with a slot of uniform width extending therethrough, a hook including two opposite sides converging to provide a divided

neck portion on said hook and an enlargement on each of said sides forming a portion on said neck which is larger than the width of said slot, and means operable upon forcing of said sides towards each other and into abnormal relation to permit passage thereof through said slot and into said tubular portion and thereby secure said hook to said support.

4. A key retainer comprising a support having a slot of uniform width therethrough and with closed ends, a key hook, an enlarged portion on said hook larger than the width of said slot and means including side portions on said hook and a division between said side portions and enlarged portion to permit passage thereof through said slot.

5. For a key retainer comprising a support, a key hook including side portions joined together by a cross portion permitting relative movement between said side portions, a neck portion formed by co-relation of said side portions, and enlargements on said side portions co-operating to form a head on said hook, the said head being dividable in the direction of the axis of said connecting portion for separating said head to permit passage thereof through said slot.

6. For a key retainer comprising a support having a slot therein, a key retainer hook including opposite side portions joined together by a connecting portion which permits relative movement thereof, co-operating extensions on said side portions forming a neck on said hook, portions at the ends of said extensions forming a head on said neck, and means permitting separation of said head, upon squeezing of said side portions toward each other, to permit passage thereof through said slot and, upon releasing said side portions to return said enlargements into co-operating position whereby said head will swively secure said hook to said support.

7. For a key retainer comprising a support having a slot therein of uniform width and with closed ends, a key retaining hook including side portions resiliently connected by a connecting portion, means at the ends of said side portions co-operating to form a head larger than said slot; the said head being separable, when pressure is applied to said side portions in the direction of the axis of said connecting portion, to permit passage of said head through said slot.

8. For a key retainer comprising a support having a slot therein, a hook including side portions connected by a resilient connecting portion, a neck on said hook, a thickened portion on said neck forming a divided head on said hook, and means at the top of said head comprising a notch for separating the said neck portion, upon insertion of a key in said notch, to permit a side portion of said hook to be inserted through an opening in said key.

9. For a key retainer comprising a support having a slot of uniform width, a key retainer hook having a head thereon larger than the said slot, and means comprising a slit separating said head on a line at an angle to the axis of said hook to permit movement of the opposite portions of said head towards the said axis upon separation thereof in the direction of said line.

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