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W. I. JONES

KEY HOLDER FRAME

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2,672,748

FIG. 1.

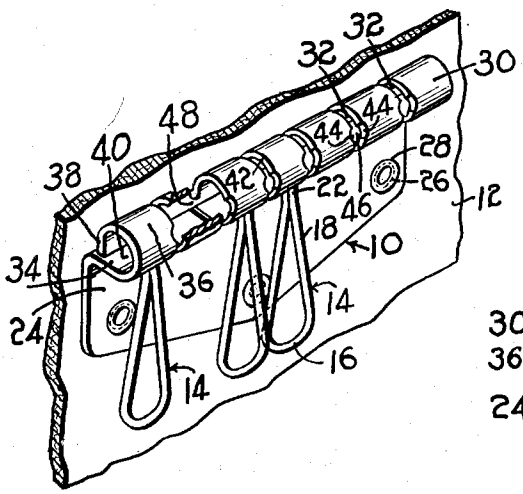


FIG. 2.

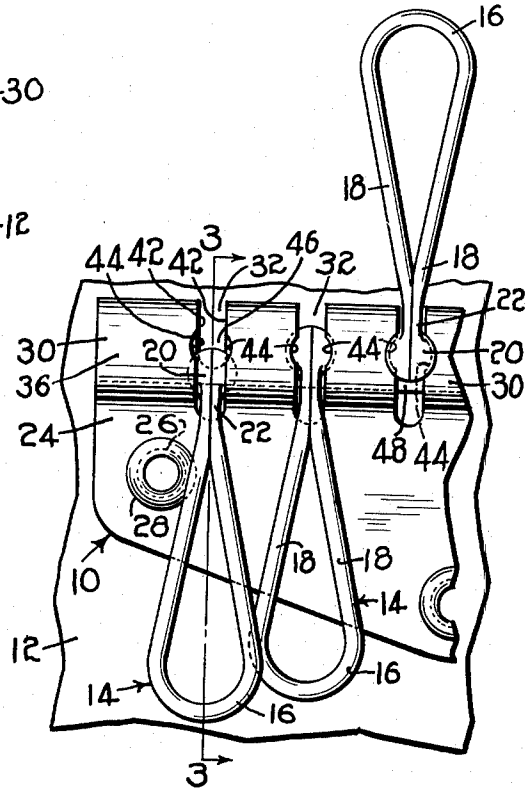


FIG. 4.

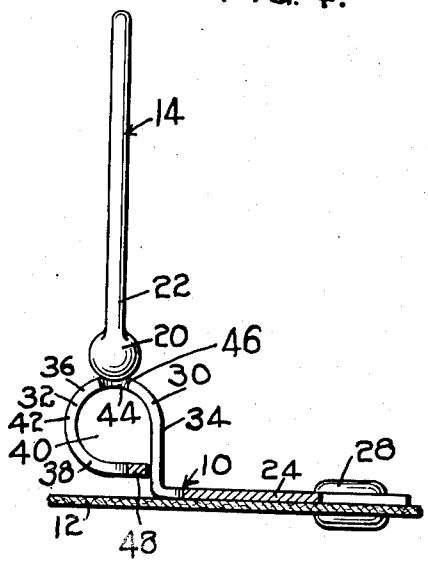
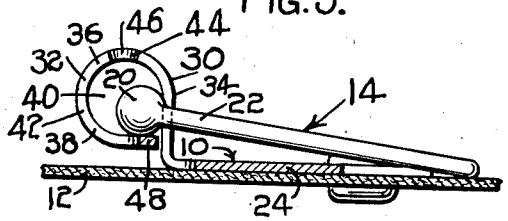


FIG. 3.



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KEY HOLDER FRAME

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1 Claim. (Cl. 70—456)

1

This invention relates generally to key retaining devices, and has particular reference to a key holder frame adapted to receive key hooks of the type having an enlarged head disposed on the end of a neck portion.

The object of the invention is to provide a key holder frame which is adapted to receive the enlarged head of a key hook in snapping engagement therewith.

A further object of the invention is to provide a key holder frame having a series of spaced arms forming key hook receiving slots therebetween, in which the arms are shaped and arranged to permit the head of a key hook to be snapped therebetween.

A further object of the invention is to provide a key holder frame in which spaced key hook retaining arms are provided with opposing indentions to form an opening to allow the head of a key hook to be snapped therethrough.

Other objects of the invention will, in part, be obvious, and will, in part, appear hereinafter.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description, taken in conjunction with the accompanying drawings, in which:

Fig. 1 is a perspective view of a key frame embodying the features of the invention;

Fig. 2 is a plan view of the key frame of Fig. 1, in which key hooks are shown in various positions, illustrating the method of assembly of the hooks with the frame;

Fig. 3 is a view in section on line 3—3 of Fig. 2; and

Fig. 4 is a view in end elevation, partly in section, of the key frame of Fig. 1 and a key hook disposed in position for being snapped into engagement therewith.

Referring to the drawing, there is illustrated a key frame 10, which is adapted for attachment to a supporting member 12 such as a key case or the like to receive and engage key hooks 14.

The illustrated key hooks for use with the key frame of the invention are well known in the art, and comprise generally a key retaining loop 16 and a pair of legs 18 which are held together by the spring action of the loop. To provide means for engagement with a key frame, the legs 18 are shaped to provide an enlarged head 20 disposed on the end of a neck 22.

The key frame 10 comprises a base 24 which may be provided with openings 26 to receive rivets 28 for attaching the frame to the supporting member, and a series of arms 30 disposed on the

2

base in spaced relation to one another to form a series of key hook receiving slots 32 between adjacent arms. In the preferred embodiment the arms 30 are integral with the base and extend outwardly from the plane of the base to form a hook support portion 34, and then are curled upwardly and inwardly to form a key hook engaging portion 36. The arms 30 terminate in free ends 38 which extend generally back toward the junction of the base 24 with the hook support portion 34 to provide an enclosed space 40 to receive the head 20 of a key hook. To provide means for enabling a key hook to be snapped into engagement with the frame, adjacent edges 42 of the hook engaging portion 36 of adjacent arms are provided with opposing indentations 44 which form an opening 46 to receive a key hook as will be hereinafter described.

The relative dimensions of the head and neck of the hook and the slots and openings of the frame are such that the head of the hook may be snapped through the opening 46 so that the head will be retained behind the adjacent edges of adjacent arms with the neck of the hook freely movable therein. Referring to Figs. 2–4, there is illustrated the method of assembling a key hook in the frame. The head 20 of the hook is placed against the arms 30 over the opening 46, and forced into the opening by a pushing action, which springs the arms 30 slightly apart and allows the head to pass through the opening, after which the arms 30 snap back into their normal position. The neck 22 of the hook is thereby disposed in the slot 32 and the head is retained behind the adjacent edges 42 of the arms, and when the frame and supporting member are in the upright position as in Figs. 1 and 2, the heads rest against the hook support portion 34. Since the space 40 is closed by the shape of the arms 30, the hook can be removed from the opening only by snapping the head 20 out through the opening 46.

Although the indentions 44 may be spaced at any convenient point on the arms, it is preferred, as illustrated, to provide the opening 46 at approximately the portion of the arms which is furthest away from the base, so that there will be no possibility of a hook accidentally becoming disengaged when the hook is hanging down from the hook support portion, or when the entire key case and frame is hanging from a single hook, as will be the case when a key is left inserted in a lock. The stiffness of the spring action of the arms may be increased by the provision of connecting members 48, which connect the ad-

jacent edges of the free ends **38** of the arms, and thereby increase the amount of force required to separate the edges of the arms when a key is snapped through the opening **46**.

Although it is preferred to provide the spring action necessary to enable the hook head to pass through the opening by means of the resilient arms, it is also possible to use a hook having a resilient head capable of a small amount of compression, in which case the arms may be relatively stiff with little or no spring action.

Since certain other obvious modifications may be made in the device without departing from the scope of the invention, it is intended that all matter contained herein be interpreted in an illustrative and not in a limiting sense.

I claim:

A key holder frame for receiving key hooks of the type having an enlarged spherical head disposed on the end of a neck portion, said frame comprising a rigid base which is adapted for attachment to a supporting member, and a key hook engaging portion integral with the upper portion of the base, said key hook engaging portion extending outwardly from the plane of the base and being curled back to terminate in a free end portion extending generally in the direction of the base, said key hook engaging portion having a series of vertical slots extending substantially the entire width of the key hook engaging portion forming a series of laterally resilient arms to receive a key hook therebetween, said slots having a wider portion in the medial portion to permit the snapping of the spherical head of a key hook therebetween by lateral movement of the arms, said slots terminating in spaced relation to the end of the arms, whereby the ends of said arms are joined by connecting portions.

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