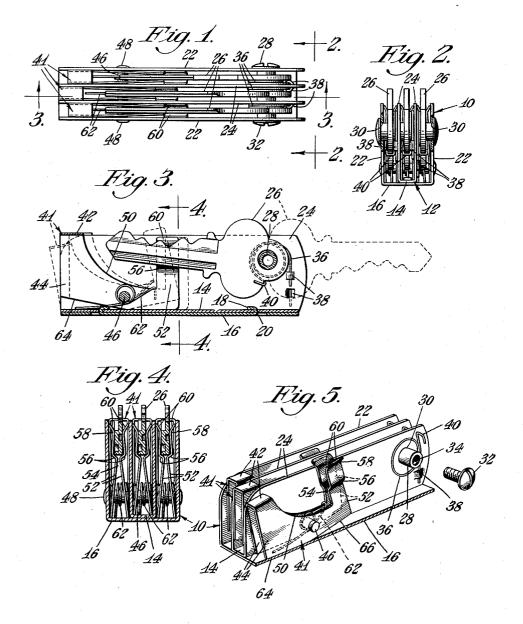
## J. I. POLLAK

KEY HOLDER

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## UNITED STATES PATENT OFFICE

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## KEY HOLDER

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9 Claims. (Cl. 59-96)

My invention relates to key holders, and has among its objects and advantages the provision of a novel key manipulating construction.

In the drawing:

Fig. 1 is a top plan view;

Fig. 2 is an end view indicated by the line 2-2 of Fig. 1;

Fig. 3 is a sectional view along the line 3-3 of Fig. 1:

Fig. 4 is a sectional view along the line 4—4 of Fig. 3; and

Fig. 5 is a perspective view of a portion of the device.

In the embodiment selected to illustrate my invention, I make use of a case comprising a shell 10 of sheet material bent to provide a U-shaped configuration in cross section, as indicated in Fig. 2. Within the shell 10, I mount a similarly shaped member 12 having its bight 14 fastened to the bight 16 of the shell 10 through the medium of ears 18, see Fig. 3. These ears 18 comprise integral parts of the bight 16 extending through openings 20 in the bight 14 and bent over.

The flanges 22 of the shell 10 are arranged in parallel relation and the flanges 24 of the member 12 are similarly arranged with respect to the flanges 22. These flanges function as partitions and provide three channels of equal proportions. Between the flanges 22 and 24 I mount three keys 30 26 of conventional design, which keys are arranged to be housed within the channels defined by the flanges, see Fig. 3, or shifted to an operating position as indicated in dotted lines in the same figure.

I connect a tubular member 28 with the flanges 22 and 24 near one end of the case for pivotally mounting the keys 26. This tubular member is supported within openings 39 in the flanges 22 and 24, and has its ends arranged flush with the outer surfaces of the flanges 22. Screws 32 are screwed into the threaded interior 34 of the tubular member 28, so that the heads of the screws 32 bear against the flanges 22 and prevent endwise movement of the tubular member. Each key 45 6 is provided with a spring 36 for shifting its respective key from the full line to the dotted line illustration in Fig. 3.

Referring to Fig. 5, one end of the spring is anchored within a small loop 38 comprising an in50 tegral part of its respective flange, and coiled about the tubular member 28. The opposite end of the spring is bent to provide a hook 40 arranged to connect with its respective key 26 in a manner illustrated in Fig. 3. One of the flanges 24 is pro55 vided with two of the loops 38, so that the three

springs illustrated are anchored to the two flanges. In connecting the three springs with the two flanges 24, I eliminate the necessity for punching out portions of the two flanges 22.

I provide spring clips 41 for retaining the keys 5 26 in the full line position of Fig. 3 against the tension of the springs 36. In Fig. 5, I illustrate one of the spring clips 41 in detail. The clip comprises a single sheet of resilient material bent back upon itself at 42 to provide two flange parts 10 44 arranged in spaced relation and pivotally mounted upon a shaft 46 extending through the flanges 22 and 24, and riveted at its ends as indicated at 48 in Fig. 1. The flanges 44 of the spring clip illustrated in Fig. 5, are housed snugly between the flanges 22 and 24 on its respective side of the shell 10 but arranged to be moved freely about the shaft 46 as its axis. The flanges 44 are cut away at 50 to provide two resilient fingers 52 arranged closer together at 54 than the flanges 20 44 and bent to provide ledges 56.

Each of the fingers is bent outwardly at 58 to provide angular guiding parts 60 arranged to guide the key to a position between the fingers when it is pushed inwardly. In operation, the key is pressed inwardly between the two parts 60 associated with that key until the latter is stopped by the ledges 56. At this time, the key is firmly pinched between the fingers 52 due to the pressure of the fingers caused by their engagement with the flanges, see Fig. 4. The frictional condition is such that the key is firmly retained against the tension of its associated spring 36.

To release the key, the clip associated with a 35 predetermined key is actuated by pressing inwardly on the surface 42, which lifts the key sufficiently far to bring the angular parts 60 out of binding engagement with their respective flanges 22 and 24. As soon as the clip has been shifted sufficiently far to assume the position of the detailed showing of Fig. 5, the spring 36 will throw the key to the dotted line position of Fig. 3.

Each spring clip 41 is provided with a spring 62 coiled about the shaft 46 with one end attached to its respective spring clip 41 and the opposite end bearing against the bight 16 or 14. These springs are of sufficient strength to shift the clips to the position of Fig. 3 when the 50 keys are not associated therewith.

In Fig. 5, I illustrate the flanges 44 as being provided with an edge 64 arranged to engage the bight 14 or 16 to limit the movement of the clip in the releasing direction. Similarly, the edge 66 55

limits the movement of the clips in the retaining direction.

Without further elaboration, the foregoing will so fully explain my invention that others may by applying current knowledge readily adapt the same for use under various conditions of service.

I claim:

A key holder comprising two spaced flanges, a key movably connected between the flanges, a
 spring housed between the flanges for shifting the key to an exterior position, and a key clip movably connected between the flanges, said key clip comprising two resilient fingers arranged to receive the key therebetween, the finger being flexed by engagement with the flanges to pinch the key and retain the same.

A key holder comprising two spaced flanges, a key movably connected between the flanges, a spring housed between the flanges for shifting the key to an exterior position, a key clip movably connected between the flanges, said key clip comprising two resilient fingers arranged to receive the key therebetween, the fingers being flexed by engagement with the flanges to pinch the key and retain the same, and an operating member connected with said fingers, to project a portion of the latter beyond the flanges and release the key.

3. A key holder comprising two spaced flanges, a key movably connected between the flanges, a spring housed between the flanges for shifting the key to an exterior position, a key clip movably connected between the flanges, said key clip comprising two resilient fingers arranged to receive the key therebetween, the fingers being flexed by engagement with the flanges to pinch the key and retain the same, an operating member connected with said fingers, to project a portion of the latter beyond the flange and release the key, and a spring for moving the fingers to a position between the flanges when the key is released from the flanges.

4. A key holder comprising two sheet metal parts bent to provide two U-shaped members, one 45 member being arranged within the other to provide a plurality of flanges arranged in spaced apart relation, keys movably connected with said flanges and housed in the spaces between the latter, each key being provided with an individual spring for throwing the key to an exterior position, a key holding clip positioned in each space between said flanges for releasably holding its respective key in a non-operating position, each clip comprising two resilient members cooperating with two flanges for pinching the key and holding the same in said non-operating position.

5. A key holder comprising two sheet metal parts bent to provide two U-shaped members, one member being arranged within the other to provide a plurality of flanges arranged in spaced apart relation, keys movably connected with said flanges and housed in the spaces between the

latter, each key being provided with an individual spring for throwing the key to an exterior position, a key holding clip positioned in each space between said flanges for releasably holding its respective key in a non-operating position, each clip comprising two resilient members cooperating with two flanges for pinching the key and holding the same in said non-operating position, and means associated with said spring clips for releasing the keys.

6. In a key holder, two spaced walls, a key movably connected with the walls and housed therebetween, and a spring clip for holding the key in a fixed position between the walls, said spring clip comprising two resilient fingers having portions engaging the walls for flexing the fingers and pinching the key, one of said fingers having an abutment arranged to shift the key when the clip is moved for releasing the same when said fingers are moved out of operative engagement 20 with the walls.

7. In a key holder, two spaced walls, a key movably connected with the walls and housed therebetween, and a spring clip for holding the key in a fixed position between the walls, said spring clip comprising two resilient fingers having portions engaging the walls for flexing the fingers and pinching the key, each of said fingers having an abutment arranged to shift the key when the clip is moved for releasing the same when said fingers are moved out of operative engagement with the walls.

8. A key holder comprising two sheet metal parts bent to provide two U-shaped members, one member being arranged within the other to provide a plurality of flanges arranged in spaced apart relation, keys movably connected with said flanges and housed in the spaces between the latter, each key being provided with an individual spring for throwing the key to an exterior 40 position, a key holding clip positioned in each space between said flanges for releasably holding its respective key in a non-operating position, each clip comprising two resilient members cooperating with two flanges for pinching the key and holding the same in said non-operating position, and means comprising integral parts of the bight of one of the U-shaped members passing through the bight of the other U-shaped member for fastening the two members into a unitary whole.

9. A key holder comprising a supporting structure, means for pivotally mounting a key thereon, a key holding clip pivotally mounted on said supporting structure, said clip including resilient means co-operating with said supporting structure for pinching the key and holding the same in an inoperative position, and means comprising an integral part of the clip for operating the 60 same, to move the clip to a key releasing position.

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