Sept. 6, 1949. W. M. SMYSER ET AL 2,481,359

KEY CONTAINER

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Fig. 1.

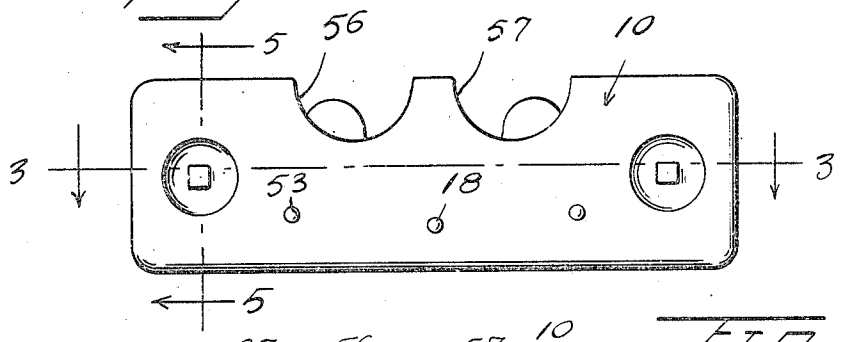


Fig. 2.

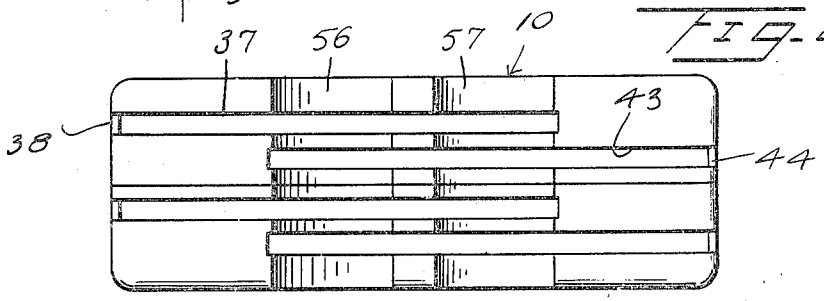


Fig. 5.

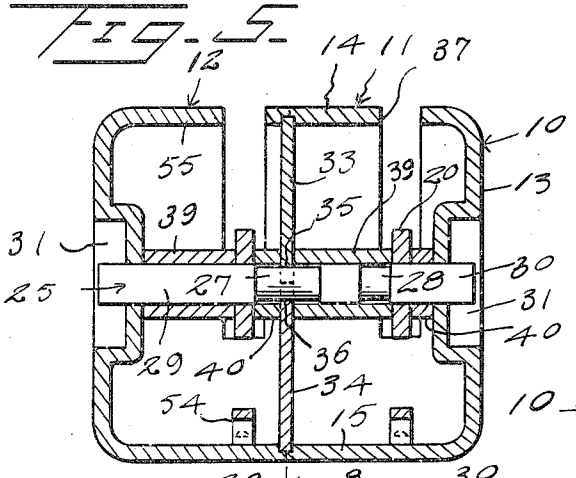


Fig. 6.

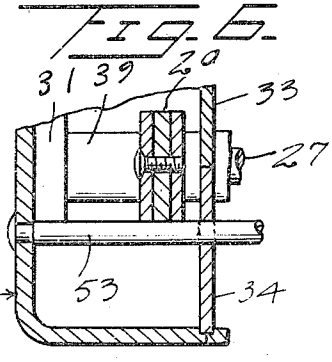


Fig. 7.

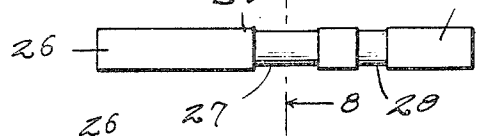
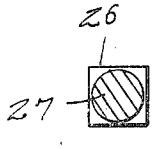


Fig. 8.



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KEY CONTAINER

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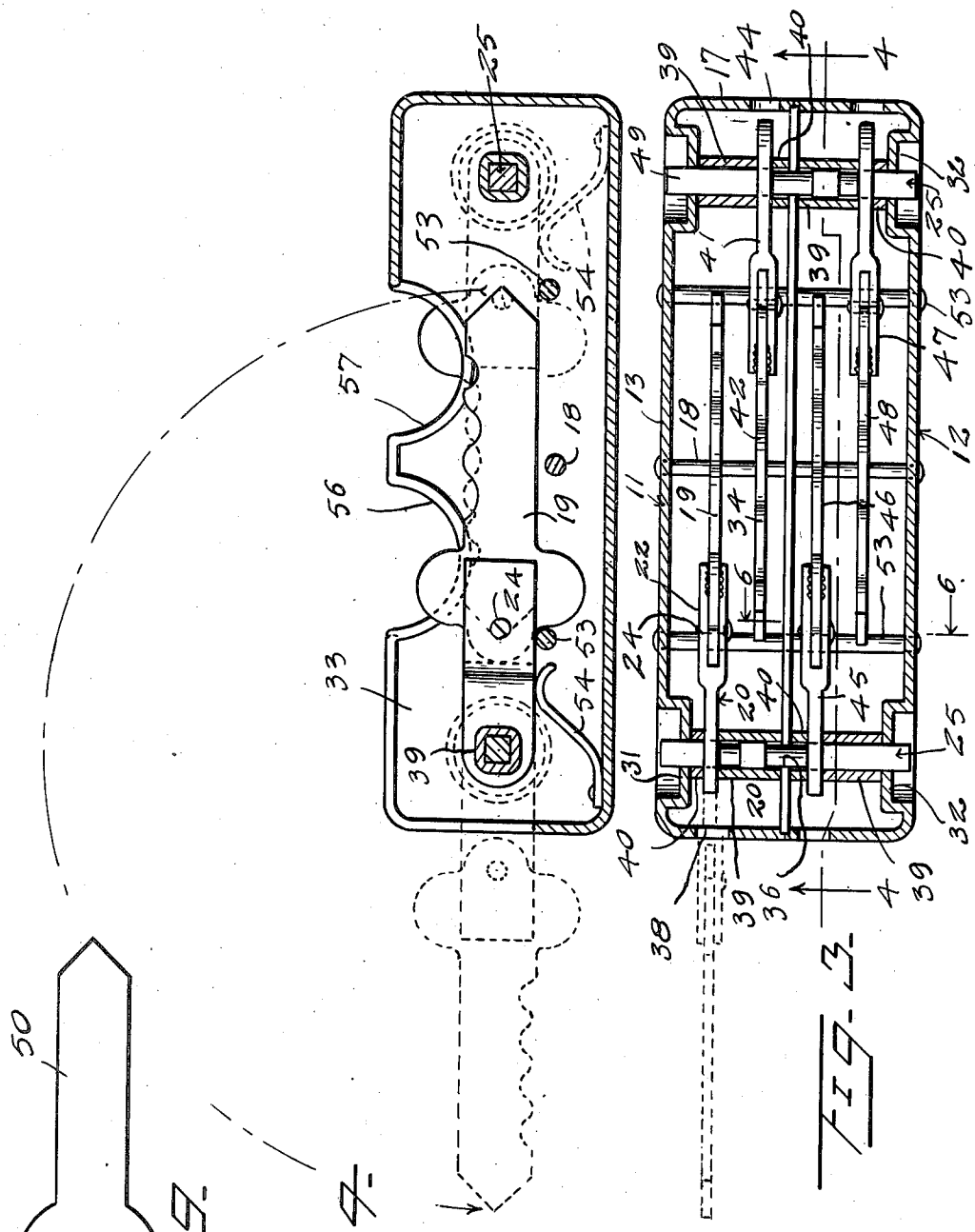


FIG. 3.

FIG. 5.

FIG. 4.

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KEY CONTAINER

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4 Claims. (Cl. 70—456)

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This invention relates to key or blade holders.

An object of this invention is to provide a holder for keys or blades which embodies a hollow handle or housing, and spring-pressed key or blade members together with an improved releasable locking means whereby a selected article may be swung outwardly to operative position and an adjacent article may be locked within the handle or housing.

Another object of this invention is to provide a holder for keys or blades which embodies a shiftable locking shaft, a pin for selectively either locking one member of a pair of keys or blades in either open or closed position, or locking both keys or blades in selected position.

A further object of this invention is to provide a holder of this kind which includes a forked key clamp for securing the key to the pivoted and latched carrier.

A further object of this invention is to provide an improved holder of this kind which can be made in a small and convenient size to readily fit into a pocket.

With the above and other objects in view, our invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings,

Figure 1 is a detailed side elevation of a key or blade holder constructed according to an embodiment of this invention,

Figure 2 is a plan view of the device,

Figure 3 is a longitudinal section taken on the line 3—3 of Figure 1,

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 3,

Figure 5 is a sectional view taken on the line 5—5 of Figure 1,

Figure 6 is a fragmentary sectional view taken on the line 6—6 of Figure 3,

Figure 7 is a detailed side elevation of the releasable locking shaft,

Figure 8 is a sectional view taken on the line 8—8 of Figure 7,

Figure 9 is a modified form of key for use with this holder.

Referring to the drawings, the numeral 10 designates generally a housing which is formed of complementary and confronting housing members 11 and 12. These two housing members 11 and 12 are of like construction and each includes an outer wall 13, and upper and lower walls 14 and 15 respectively. End walls 16 and 17 extend inwardly from the opposite ends of the outer side

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wall 13. The two housing members 11 and 12 are adapted to be secured together by means of rivets or fastening members 18 which extend through the side walls of these housings as shown in Figure 3.

In the present instant this device is shown as comprising a key holder for holding a plurality of keys with one pair of keys in the housing 11 and another pair of keys in the housing 12. These keys are oppositely disposed and overlap each other as shown in Figure 3.

A conventional key 19 is adapted to be selectively disposed either within the housing 11 or extending from the end wall 16. The key 19 is firmly secured to a carrier 20, comprising an elongated plate which is formed with a pair of spaced apart clamping arms 21, having serrations 22 for tight engagement with the opposite sides of the head 23 of the key 19. A rivet or fastening member 24 is extended through the arms 22 and also extended through the hole which is normally formed in the head 23.

The carrier 20 is adapted to be selectively locked with the key 19 either within the housing 11 or extended therefrom by means of a carrier locking shaft generally designated as 25. The shaft 25 shown more clearly in Figures 7 and 8, is formed of a square or polygonal bar 26 having spaced round portions 27 and 28. These spaced round portions 27 and 28 which are positioned inwardly from the opposite ends of the square shaft or bar 26 form carrier locking sections 29 and 30.

The carrier 20 is provided with a square opening through which the locking section 30 is adapted to slidably engage when locking section 30 is in locking position. The shaft 25 is of a length substantially equal to the distance between the side walls of the housing members 11 and 12 and preferably these housing members are formed with inwardly offset portions 31 and 32 so that the opposite ends of the shaft 25 wil normally project outwardly in a position whereby this shaft may be moved endwise in either direction.

The intermediate round portion 27 of the shaft 26 is adapted to rotatably engage through a pair of edge abutting plates 33 and 34 which are disposed between the confronting edges of the housings 11 and 12 as shown in Figure 5.

The plates or partitions 33 and 34 are formed with complementary semi-circular openings 35 and 36 within which the round portion 27 of the shaft or bar 26 may loosely engage. The complementary semi-circular openings 35 and 36

provide a means for limiting the endwise sliding movement of the locking member 25 in either direction.

The housing member 11 is formed with an elongated slot 37 in the wall 14 thereof, and the end wall 16 is also formed with a slot 38 aligning with the slot 37 so that the key 19 may be swung outwardly through substantially the dotted position shown in Figures 3 and 4. A spacer sleeve or washer 39 is disposed about the shaft 25 between the depression 31 and the outer side of the carrier 20, and a second spacer sleeve 40 is disposed between the partition plates 33 and 34 and the inner side of the carrier 20. The opposite end of the housing 11 also is provided with a key carrier 41 similar to the carrier 20 and a key 42 is secured to the carrier 41 and is adapted to be moved outwardly through a slot 43 formed in the wall 14, and a slot 44 formed in the end wall 17.

The keys 19 and 42 overlap each other for substantially their entire length, as shown in Figure 3, so that the housing 10 may be made relatively short. The housing 12 has a key carrier 45 disposed therein and a key 46 is secured to this carrier. A second key carrier 47 is disposed in the housing member 12 and has a key 48 secured thereto. The carriers 45 and 47 are similar in every detail to the carrier 20 and the carriers 41 and 47 are mounted on a locking shaft 49 which is similar to the shaft 25. Carrier 45 is mounted on shaft 25 within the housing 12.

Referring now to Figure 9, there is shown a blank key 50 which has formed integral therewith a carrier 51 formed with a square opening 52 through which the locking shaft or pin 25 is adapted to slidably engage. When the key 19 is swung inwardly to inoperative position as shown in Figure 4, this key is limited in its inward swinging movement by means of a stop 53 carried by the housing 10, and the stop 53 also provides for stopping rotation of the carrier at the time the polygonal opening thereof is in registry with shaft 25 so that the latter may subsequently be moved endwise.

In order to provide for the initial swinging movement of each key and carrier when the shaft 25 is moved endwise in the desired direction, there is provided a spring 54 associated with each carrier 20, 41, 45, and 47, which is under compression at the time the key is in its inner inoperative position.

The upper wall 14 of the housing 11, and the upper wall 55 of the housing 12 are formed with cutouts or recesses 56 and 57 so that the desired key can be readily grasped between the fingers when it is initially moved upward by the spring 54 after the shaft 25 is moved endwise in the desired direction and so that an extended key may be swung inwardly to its retracted position. The shaft 25 is non-rotatable with respect to the housing members 11 and 12 so that when this shaft is in its neutral position, which is the position shown in Figure 3, the keys will be locked in either the innermost positions or may be locked with selected ones of the keys in their innermost inoperative position, and one of the keys in its extended operative position.

In order to move the key 19 outwardly to operative position, shaft or pin 25 is moved endwise in the direction of the housing member 11 so that the round portion 28 thereof will be disposed within the square hole of the carrier 20. At this time the spring 54 will be released and key 19 will be partly swung upwardly within the cutout 56. This key can then be swung upwardly either at right angles to the housing 10 or may be swung through an arc of 180° as shown in Figure 4, and in the event it is desired to lock the key 19 in its extended operative position, shaft 25 is then moved in the direction of the housing member 12.

This holder may be formed out of any desired material such as metal or plastic and will provide a convenient means for holding a plurality of keys so that these keys can be either selectively retracted into the housing or extended from the housing.

We do not mean to confine ourselves to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What we claim is:

1. A holder comprising an elongated housing formed with a plurality of lengthwise slots and end slots formed as extensions of said lengthwise slots, a plurality of elongated retractable members engageable in said housing when in retracted position and movable outwardly through said slots to extended position, each of said members having a polygonal opening therethrough, a releasable locking shaft extending transversely of said housing and through the openings of said members, said shaft being formed of spaced polygonal portions and intermediate round portions, said housing having polygonal openings in the side walls thereof through which the polygonal portions of said shaft slidably extend, said shaft being movable endwise in either direction whereby a round intermediate portion will be disposed within the polygonal opening of a selected member whereby said selected member may be swung from a retracted position to an extended position, and spring means for at least initially swinging said selected member to extended position upon release thereof.

2. A holder comprising an elongated housing formed with a plurality of lengthwise slots and end slots formed as extensions of said lengthwise slots, a plurality of elongated retractable members engageable in said housing when in retracted position and movable outwardly through said slots to extended position, each of said members having a polygonal opening therethrough, a releasable locking shaft extending transversely of said housing and through the openings of said members, said shaft being formed of spaced polygonal portions and intermediate round portions, said housing having polygonal openings in the side walls thereof through which the polygonal portions of said shaft slidably extend, said shaft being movable endwise in either direction whereby a round intermediate portion will be disposed within the polygonal opening of a selected member whereby said selected member may be swung from a retracted position to an extended position, spring means for at least initially swinging said selected member to extended position upon release thereof, and means in said housing engaging about one of said round shaft portions for limiting the endwise movement of said shaft in either direction.

3. A holder comprising an elongated housing formed with a plurality of lengthwise slots and end slots formed as extensions of said lengthwise slots, a plurality of elongated retractable members engageable in said housing when in retracted position and movable outwardly through said slots to extended position, each of said members having a polygonal opening therethrough, each member including a pair of clamping jaws, an

article having an end thereof engaging between said jaws, means securing said article between said jaws, a releasable locking shaft extending transversely of said housing and through the openings of said members, said shaft being formed of spaced polygonal portions and intermediate round portions, said housing having polygonal openings in the side walls thereof through which the polygonal portions of said shaft slidably extend, said shaft being movable endwise in either direction whereby a round intermediate portion will be disposed within the polygonal opening of a selected member whereby said selected member may be swung from a retracted position to an extended position, and spring means for at least initially swinging said selected member to extended position upon release thereof.

4. A holder comprising an elongated housing formed with a plurality of lengthwise slots and end slots formed as extensions of said lengthwise slots, a plurality of elongated retractable members engageable in said housing when in retracted position and movable outwardly through said slots to extended position, each of said members

having a polygonal opening therethrough, a releasable locking shaft extending transversely of said housing and through the openings of said members, said shaft being formed of spaced polygonal portions and intermediate round portions, said housing having polygonal openings in the side walls thereof through which the polygonal portions of said shaft slidably extend, said shaft being movable endwise in either direction whereby a round intermediate portion will be disposed within the polygonal opening of a selected member whereby said selected member may be swung from a retracted position to an extended position.

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