Sept. 12, 1950 S. DONIGER 2,522,213

TOOL KIT

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Fig. 1.

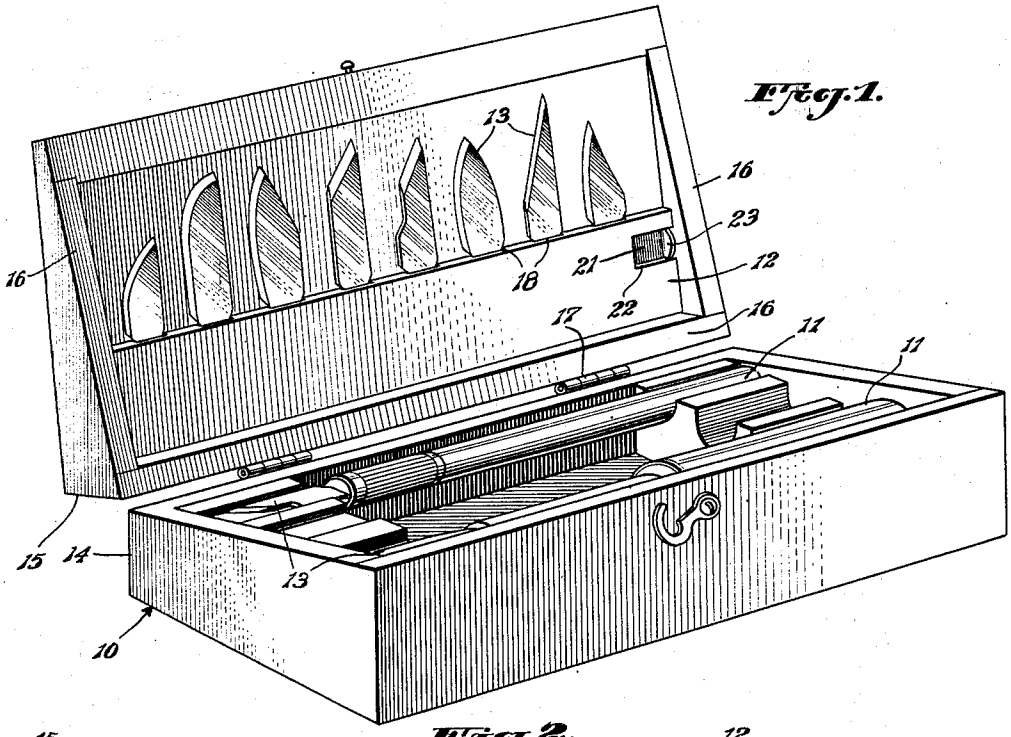


Fig. 2.

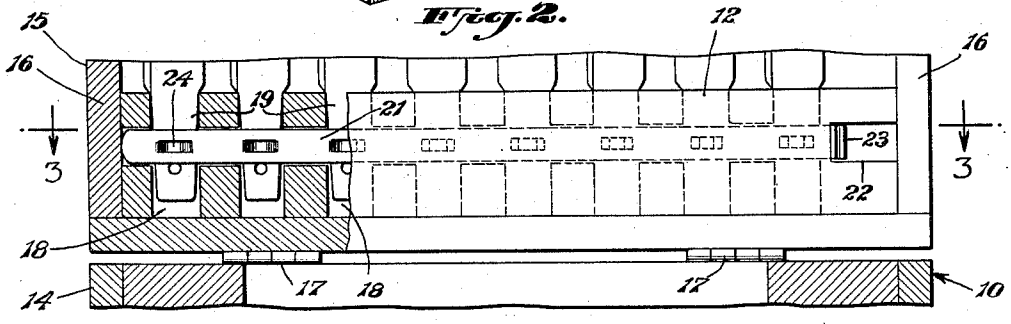


Fig. 3.

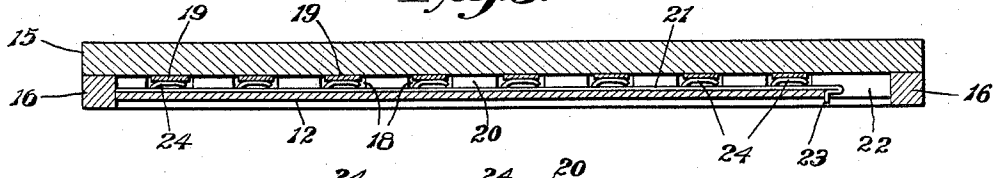
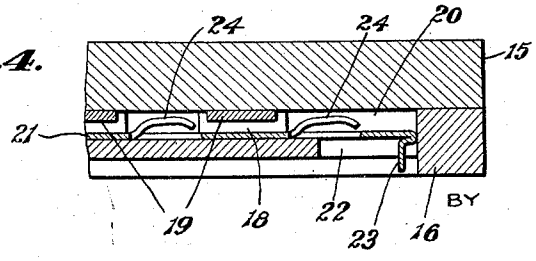


Fig. 4.



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TOOL KIT

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3 Claims. (Cl. 206—16)

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This invention relates to tool kits and more particularly to means therein by which blades or other instruments are retained in orderly position in the kit.

The utilization of tool kits wherein a plurality of blades or other instruments are provided for replaceable use in a holder or handle for each instrument, has become more and more popular and prevalent. The tool kits, however, are often handled carelessly or even roughly, and as a result the instruments become jumbled, mixed and disorderly and frequently spill when the kit is opened thereafter. Furthermore, with sharp instruments, such as knife blades, tumbling around promiscuously results in dulling the same or otherwise causing damage. Inasmuch as tool kits, especially of the character herein illustrated, are used extensively by children or young folk who are proverbially heedless in many respects, the ready locking and unlocking of the instruments by a means irremovable from the kit is an essential prerequisite for a satisfactory retainer for the instruments.

In its general aspects, therefore, the invention has for its object the fulfillment of the desiderata indicated above.

More specifically an object of the invention is to provide an instrument retainer in a tool kit adapted by a simple operation to grip all of a series of instruments and by an equally simple operation to release all of said series for selective removal of any one of the instruments desired.

Another object of the invention is to grip all instruments inserted in place irrespective of absence of any of the instruments from their appointed places.

A further object of the invention is to provide a retainer which remains part of and irremovable from the kit container.

Yet another object of the invention is to provide a structure which is adapted to the retention of thin instruments, particularly knife blades, and without contact with any part of the cutting portion thereof.

Further objects of the invention contemplate simplicity of construction; durability, lightness of weight; minimum alteration of present-day containers, and full display of the cutting portions of the blades.

Still other objects of the invention will be apparent to those skilled in the art to which it appertains as the description progresses, both by direct recitation thereof and by implication from the context.

Referring to the accompanying drawing in which like numerals of reference indicate similar parts throughout the several views:

Figure 1 is a perspective view of a tool kit the container of which is open and the instruments shown are blades carried by a rack having a retainer, said retainer being in its unlocked position;

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Figure 2 is a facial view, partly broken away and in section, showing the rack, retainer and associated parts of the container, and with the retainer in locked position;

Figure 3 is a section on line 3—3 of Figure 2; and

Figure 4 is a sectional view similar to Figure 3 showing a part thereof on larger scale and with the retainer in unlocked position.

In the specific embodiment of the invention illustrated in said drawing, the kit is shown as comprising a container 10 wherein are depicted two holders 11, and a rack 12 for instruments or blades 13 adapted to be selectively used with a holder.

More in detail, the container 10 is a box or body portion 14 of generally rectangular shape except for tapering sides and with a cover 15 having a marginal rim 16 at the two sides and back to give depth to the interior of the cover. The side rims of the cover slope to a vanishing condition next the front edge, which enables the blades to lie flatwise against the inside face of the cover and yet be slid in and out past the front edge of the cover without obstruction. The body of the container has its side walls correspondingly sloped so the closed container will be truly rectangular. Hinges 17 mount the cover by its rear rim to the near wall of the body of the container. The body of the container has socketed cleats along its side walls extending from front to back of the container and adapted to receive and support holders 11 lengthwise of the container, each said holder removably carrying a blade or instrument therein when laid away. In use, any one of the variously shaped blades 13 shown in the rack 12 in the cover may be substituted for the blade 13 shown in the holder 11.

The rack 12 is preferably a strip, which may be wood or other material, and is here shown extending at the deep part of the cover from side to side thereof. Said strip is fixed to the inside face of the cover and has grooves or pockets 18 in its rear face next said inside face of the cover, said pockets being open endwise toward the front edge of the cover for receiving shanks 19 of the blades. Longitudinally of said strip constituting said rack, and also in the rear face thereof next the inside face of the cover, is a longitudinal groove or slideway 20 from end to end of said strip. This longitudinal groove or slideway is deeper, in direction perpendicular to the inside face of the cover, than the pocket grooves.

In said longitudinal groove is a longitudinally movable retainer 21 which is preferably a strip of resilient metal the width of which is substan-

tially the width of the longitudinal groove and the length of which is less than the length of rack 12 by an amount substantially equal to desired longitudinal amplitude of movement for the retainer, that is, an amount substantially equal to width of a pocket 18. At one end of the rack, a slot 22 of equal width to the longitudinal groove in registration with said groove opens through the front of the rack, and a finger-piece 23 projects therefrom as an integral part with the slide. This finger piece is conveniently formed as a forwardly bent end of the slide, but it will be understood that the said finger piece may be constituted otherwise and differently placed if desired with a corresponding change of location of the slot. The said slide has a thickness less than excess of the depth of the longitudinal groove over depth of the socket grooves, so that the generally flat portion of the face of the slide toward the inside face of the cover is spaced from the cover more than the depth of the socket grooves from the cover, to leave a clear path for entry of the instrument shanks past the retainer.

Said retainer has stamped therefrom or otherwise formed, a plurality of resilient detents 24, one for each socket groove and protruding from the slide toward the inside face of the cover substantially into contact therewith. These detents are located on the slide in such manner as to lie between socket grooves, entirely clear of said grooves, in one position, identified herein as unlocked position, of the slide, and the slide has amplitude of movement enabling said detents to be introduced into said socket grooves at the other extreme position of the slide here designated as the locking position.

In use, the several blades 13 are inserted in the container 10 with their shanks 19 slid home in socket grooves 18 so that, as shown in Figure 4, the shanks are behind the slide which is at that time at its unlocked position or slid to the right as shown in Figure 1. To grip the blades for holding them in the rack, the slide is then moved to the left or locked position as shown in Figures 2 and 3, which brings the detents into position of registration with the shanks, and by virtue of the resiliency of the detents, the shanks are pressed against the inner face of the cover and frictionally held in that position. Because of the resilient pressure exerted by the detents against the blade shanks, the slide is likewise retained in its locking position until positively actuated by the user to the unlocked position. It will be observed that all of the blades in the rack are simultaneously locked by the single movement of the slide and similarly are all unlocked at once by single movement of the slide. Furthermore, absence of any one or more blades from its socket does not lessen the security of retention of such blades as are mounted in the rack when the retainer is slid to locked position. It will also be observed that the blades in locked position are flatwise against the inside face of the cover and the shank portions are the only parts thereof which are engaged at the side edges. The bevel of the blade to its cutting edge raises the cutting edge from any contact whatever from the cover surface, and thus there is no possibility of the blade becoming dulled and yet the blade is conveniently introduced and removed according to the wish of the user and fully protected in intervals of non-use and of shifting around of the container, irrespective of roughness of treatment of the container while the blades are locked in the rack. Observation is also made

that the slide is irremovable from the rack and has its movement limited by end engagement of the retainer with the projecting end sections of the cover rim.

I claim:

1. A device of the character described comprising a tool kit container having a wall constituting a support for a plurality of tools in front of and against said wall, means proximate to said wall for receiving and holding a plurality of tools in front of and against said wall, said means comprising a longitudinally extending strip whereof portions engage said wall, and said strip having a plurality of parallel recesses therein between wall-engaging portions, said recesses extending inwardly from the upper longitudinal edge of said strip at the rear thereof proximate to said wall and forming with said wall a series of transversely spaced pockets for reception of tools therein, said strip being formed with a longitudinally extending slideway parallel to said wall and spaced laterally therefrom and traversing said pockets so that tools in the pockets extend past said slideway and between the slideway and said wall, said slideway extending at right angles to said pockets and intersecting the same through the sides thereof, a longitudinally extending flexible locking retainer mounted in said slideway and spaced from said wall in parallelism thereto providing space between said wall and retainer for insertion of a tool, and means on said retainer projecting therefrom toward said wall and movable into and out of said pockets at the sides thereof for positively engaging across the front faces of said tools in the pockets and resiliently pressing said tools toward and into engagement with said wall when said retainer is moved to the locking position.

2. A device in accordance with claim 1, wherein the said means on the retainer projecting toward said wall, comprises resilient fingers, one for each recess, struck from and integral with said strip for resiliently pressing the tool in a direction away from the slideway and toward said wall.

3. A device in accordance with claim 1, wherein said strip is provided with a slot at one end of the slideway and through the front face of said strip away from said wall, and wherein said retainer is provided with an operating finger at one end thereof next said slot, said finger projecting forwardly out of said slot and accessible for sliding said retainer to and from its said locking position.

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