

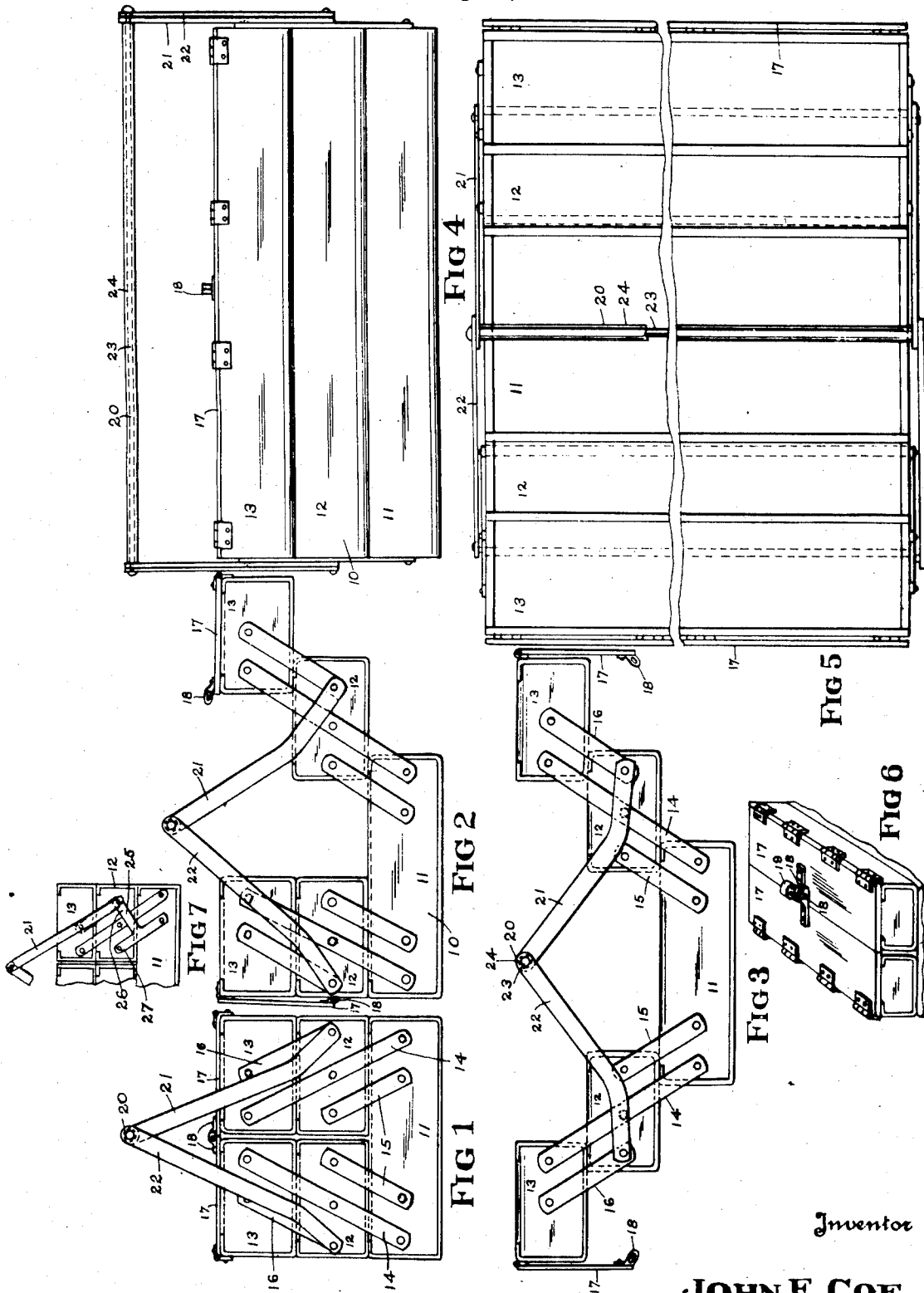
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TOOL BOX

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TOOL BOX.

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This invention relates to an improvement in a tool box, and more particularly in a tool box of the collapsible type.

The primary object of this invention is to provide a tool box having a handle and a plurality of separate trays, which handle not only functions to carry the box, but also acts under a downward pressure to shift either part of all the trays laterally, thus opening the box either wholly or in part.

Another object of this invention resides in the provision of a tool box comprising a plurality of separate trays pivotally connected by straps including a single bottom tray, and two tiers of trays supported on said bottom tray, whereby the lateral shifting of said supported trays will uncover said lower tray.

Other objects of this invention will appear from a consideration of the following description taken in connection with the drawings, which form a part thereof, and in which

Fig. 1 is an end elevation of a tool box embodying this invention, the tool box being closed;

Fig. 2 is a view similar to Figure 1, with the tool box partly opened;

Fig. 3 is a view similar to Figure 2, showing the tool box completely opened;

Fig. 4 is a side elevation of the tool box closed;

Fig. 5 is a plan view of the box completely opened, as shown in Figure 3;

Fig. 6 is a perspective view of the upper compartments fully closed; and

Fig. 7 is an end view of a portion of the tool box illustrating a modification of the handle mounting.

The tool box embodying this invention, and designated in the drawing by the number 10, comprises a plurality of separate trays. Each of the trays is open at the top so that any tools therein can be readily reached when the tool box is open, as shown in Figures 3 and 5. The trays in the embodiment illustrated comprises a lower tray 11, a pair of intermediate trays 12 and a pair of upper trays 13.

The tray 11 is wider than the trays 12 and 13, which are arranged in pairs forming two tiers of trays supported on the tray 11. Hence, as shown in the drawing, the trays 12 together cover the tray 11, while each tray 12 is covered by a tray 13.

The trays are connected by means of a plurality of straps 14, 15 and 16. The straps 14, which are the longest, are each pivoted to the tray 11 and to the trays 12 and 13 in one tier, while each strap 15 is pivoted to the tray 11 and one tray 12 and each strap 16 is pivoted to a tray 12 and the tray 13, which covers it. These straps are arranged in two sets, those of each set being parallel, and extend across the ends of the tool box, each inclined upwardly toward the middle when the box is closed, as in Figure 1, and away from the middle when the box is open, as in Figure 3. Due to this pivotal connection of the straps to the trays it is obvious that when the trays 12, 13 are shifted laterally to one another, they first separate and then approach each other, swinging upon the pivots. The result is that when the box is open the trays stand in stepped arrangement, each tray 13 beyond and resting on the outer edge of the tray 12 below it, and each tray 12 beyond and resting on the outer edge of the tray 11.

The trays 13 are closed by covers 17 hinged at the outer edges to the trays. In order to lock the tool box 10, loops 18 are secured at the inner edges of the covers through which a padlock 19 is passed.

The box is provided with a handle 20 attached by links 21, 22 to the ends of the tray 12. The upper ends of the links 21, 22 are joined by a rod 23, over which a tube 24 may be slipped, if desired. The connection of the links 21, 22 to the tray 12 is pivotal, preferably on the lower pivots of the straps 16.

The weight of the box, when lifted by the handle, will automatically bring the trays into the closed position, because the pull being on the trays 12 will cause them, if not in that position, to swing over thereto and the straps 14 will at the same time swing the trays 13 in, the straps 16 acting as guides.

Moreover, if the box be unlocked but closed, downward pressure on the handle will cause the trays 12 to shift laterally on the straps 14, 15 and consequently cause the trays 13 to shift laterally on the straps 14, 16. By directing the pressure toward either side, only the selected tier of trays will open. For example, to open the box as in Figure 2, pressure on the handle 20 was directed toward the right side. If it be desired to open the other side of the box

shown in Figure 2 pressure directed toward the left side should be applied, which will shift the left tier of trays outwardly.

When the box is open, either partly as in Figure 2, or completely as in Figure 3, a direct upward pull on the handle 20 will bring all the trays into the position of Figure 1. When the box is completely open, one side or the other can be closed according to the direction in which the pull is directed.

As above pointed out, therefore, the handle 20 functions first as a means for carrying the tool box, second as a means for partly or fully opening the tool box, and third as a means for closing the tool box in part or completely.

In place of pivoting the links 21, 22 directly on the trays 12 the construction disclosed in Figure 7 may be employed, in which T-shaped straps 25 are substituted for the straps 15. The links 21, 22 are pivotally connected to the ends of the center arms 26 and obviously the studs 27, by which the straps 25 are connected to the tray 11 act as fulcrums on which the trays 12 are shifted laterally in either direction, according to that in which the force is applied to the handle 20.

While two embodiments of this invention have been shown and described, applicant is not limited thereto, since it is obvious that other embodiments can be made without departing from the spirit and scope of this invention as set forth in the following claims.

Having thus set forth my invention, what I claim as new and for which I desire protection by Letters Patent is:

1. A tool box, having a handle, a plurality of trays arranged one above another so that when the tool box is closed each tray rests on the one below, means for so connecting said handle to certain of said trays that downward pressure on said handle will cause certain of said trays to shift laterally, and thus open said box.

2. A tool box having a plurality of trays comprising a bottom tray, a pair of inter-

mediate trays resting upon and closing said bottom tray and a pair of top trays, each resting upon and closing one of said intermediate trays, and a single means for simultaneously shifting both said top and intermediate trays laterally to uncover said bottom and intermediate trays.

3. A tool box having a plurality of trays, comprising a bottom tray, a pair of intermediate trays over said bottom tray, a pair of top trays over said intermediate trays, parallel straps pivotally connecting each intermediate tray to said bottom tray and to the top tray over each intermediate tray, a handle, and links connecting said handle to certain of said trays, whereby a downward pressure on said handle transmitted to either said intermediate trays will cause said tray and the top tray over it to shift laterally.

4. A tool box having a plurality of trays, comprising a bottom tray, a pair of intermediate trays resting upon said bottom tray, a pair of top trays resting upon said intermediate trays, a handle, means connecting said handle to certain of said trays, whereby a vertical downward pressure will shift all said top and intermediate trays laterally, and a lateral downward pressure will shift only one intermediate tray and one top tray laterally.

5. A tool box comprising fixed and movable trays, covers, links, and handle, said handle being pivotally connected to said trays through said links and, by lateral pressure, adapted to laterally extend half of said movable trays and by an upward pull to retract all of said extended trays.

6. A tool box comprising a base, intermediate and top trays, covers and handle, links pivotally engaging said trays with each other and with said handle, said handle, by a downward pressure, laterally extending said intermediate and top trays and by an upward pull retracting said intermediate and top trays.

In testimony whereof I have affixed my signature.

JOHN E. COE.