

Oct. 21, 1930.

J. E. COE

1,779,159

TOOL BOX

Filed April 3, 1928

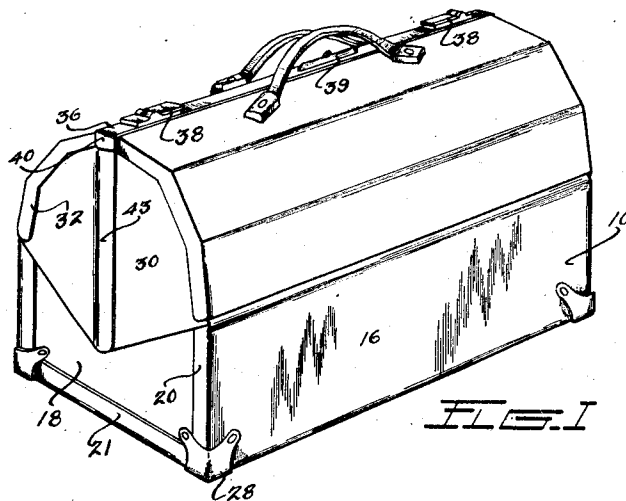


FIG. 1

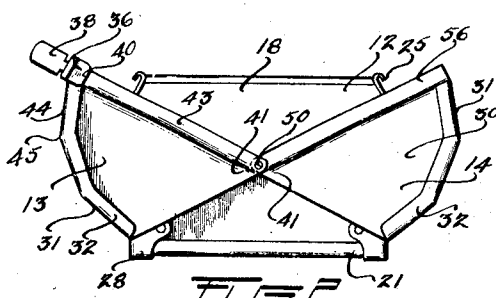


FIG. 2

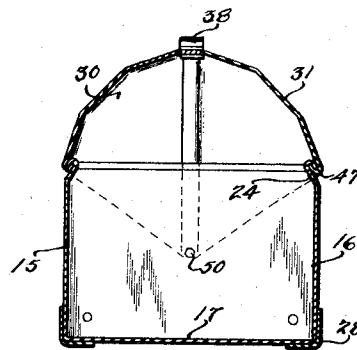


FIG. 3

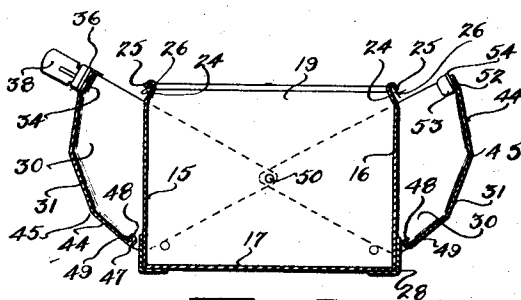


FIG. 4

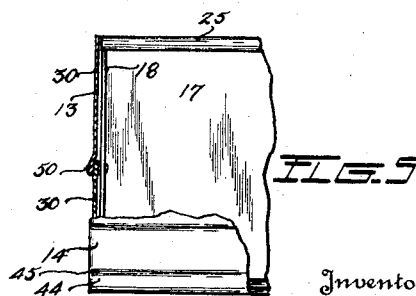


FIG. 5

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TOOL BOX

Application filed April 3, 1928. Serial No. 267,078.

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

In order to facilitate a clearer understanding of this invention, a brief comparison of the construction of tool boxes in present use with applicant's invention is deemed necessary. The tool boxes now on the market, while produced in accordance with various clever constructions, do not adequately provide supporting means through the covers of the usual load confined within the box. It is true that some of the boxes are amply strong to support their full weight in tools but these boxes are found to be of such a heavy construction as to give them a cumbersome appearance and to decrease the number of uses to which a box of this kind may be put. Tool boxes have been provided with covers supported by all manner of link mechanisms but it is believed that prior to applicant's invention no attempt has been made to produce a tool box which combined the accessibility of the linked tray tool boxes with the simple construction of the traveling bag or valise. It is a known fact that much trouble has been encountered by manufacturers through supporting tool box covers upon pivots or pivotal links because of the fact that in the process of opening and closing the tool box, undesired pressure is brought to bear upon the links which loosens the rivets supporting them or bends the links so that they jam and will not function properly. In order to overcome these objections it is applicant's endeavor to produce a tool box which makes use of neither links nor pivot means to support the box by the handles secured to the cover.

An object of this invention is to provide a tool box of the valise type with covers which engage the full length of the box and adequately support it when the box is in its carrying position.

Another object of this invention is to provide a tool box having pivoted covers which, when closed, engage the longitudinal walls of the box and support said box by its engagement therewith without relying on the pivotal means which functions merely to

guide the travel of the covers into either their open or closed position.

Other objects and advantages of this invention will appear from a consideration of the following specification taken in connection with the accompanying drawing, in which

Fig. 1 is a perspective view of a tool box produced in accordance with this invention;

Fig. 2 is an end view of the tool box showing the covers in their fully extended position;

Fig. 3 is a transverse sectional view looking into the end of the box and shows the covers in the same position as shown in Fig. 2;

Fig. 4 is a transverse sectional view and shows the covers in their closed position and also the method of interlocking the covers with the walls of the box; and

Fig. 5 is a fragmentary top plan view with parts broken away to clarify various details of the construction.

Referring to the drawing and more particularly to Fig. 3, this invention is generally indicated by the reference numeral 10 comprising a body portion 12, and covers 13 and 14. The body portion 12 is formed from three separate elements. The side walls 15 and 16, are formed integral with the base wall 17 and the end walls 18 and 19 are secured in any suitable manner as by welding to the flanges 20 and 21 of the side and base walls. The upper ends of the side walls 15 and 16 are provided with inwardly inclined shoulders 24 which terminate in downwardly extending flanges 25, said flanges being parallel to the shoulders 24 and spaced therefrom to provide pockets 26. The upper ends of each of the end walls 18 and 19 are cut back a sufficient distance to permit said walls to enter the space within the ends of the box. The feet 28 provided at each of the four lower corners of the body portion 12 are of any standard pattern and, since they do not form a part of this invention, further description thereof is unnecessary.

The covers 13 and 14 are constructed substantially identical one with the other with the exception that when the box has passed

a certain stage in assembling, the cover 13 is provided with a locking means and the cover 14 is provided with a suitable support to engage the locking means. The covers 13 and 14 are each comprised of three elements, namely, end walls 30 and top or longitudinal walls 31. The end walls 30 are secured, in any suitable manner as by welding, to flanges 32 of the longitudinal wall 31. Secured to the upper edge 34 of the cover 13 is a strip 36 which is adapted to receive the hardware used to secure the covers 13 and 14 together. The hardware located on the strip 36 consists of catches 38 located one near each end and a lock 39. The ends of the strips 36 are bent to form right angle flanges 40 which overlap the flanges 32, provided at each end of the wall 31, and is secured thereto in any suitable manner as by welding. The end walls 30 of the cover 13 terminate in acute angles 41 remote from the sides thereof which engage the wall portion 31. Extending from beneath the flange 40 to the angle portion 41 and formed from the end wall 30 is a raised portion 43, the purpose of which will later be described. The wall 31 of the cover is bent slightly at regular intervals to provide faces 44 connected at angles 45. Although only three faces 44 and two angles 45 are shown as constituting a cover, it is obvious that a greater or lesser number of faces and angles might be provided without sacrificing any of the advantages of the cover as shown.

The lower edge 47 of the lowermost face 44 is provided with an inwardly extending flange 48 spaced from the wall 44 to provide a pocket 49. When the cover 13 is pivotally mounted by pins 50 upon the end walls 18 and 19 of the body portion 12, said cover may be swung from its position as shown in Fig. 3 to the position in Fig. 4 and it will be found that when the cover is moved into its raised position as shown in this last named figure, the flange 48 thereof will enter the pocket 26 of the wall 15 and the flange 25 of the wall 15 will enter the pocket 49. Since the flanges 25 and 48 are provided the full length of the walls 15 and 31 respectively, when the cover is brought into its closed position, it will engage the wall 15 throughout its length.

Inasmuch as the cover 14 is substantially identical in construction to the cover 13, reference numerals designating the various parts of the cover 13 are applied to the cover 14. The cover 14, however, is provided along its upper edge 34 with a strip 52 which extends the full length of said cover and terminates in right angle flanges 53. The strip 52 is similar to the strip 36 provided in the cover 13 with the exception that in this instance the strip is secured beneath the portion 34 and the flanges 53 thereof are within the end walls 30 of the cover. This strip is secured

in any suitable manner to the end walls 30 and edge 34, preferably by welding. The face 54 of the strip 36 is provided with appropriate slots whereby to receive the catches 38 and the engaging member of the lock 39. The end walls 30 of the cover 14 terminate in acute angles 41 by means of which said cover is pivotally mounted by the pins 50 upon the end walls of the body portion 12. The edge of the cover 14, which is adapted to engage the portion 43 of the cover 13, is provided with a slightly offset portion 56 which, when said covers are in engagement with each other, rests between the portion 43, and the end wall of the body portion 12.

When the covers 13 and 14 have been secured to the end walls 18 and 19 of the body portion 12, they may be brought into engagement with each other and there held by the catches 38. When this is done, the box may be raised into its carrying position by means of the handles 58 secured to each cover. The pins 50 will have ceased to function as a support for the covers, that is, all the weight or load of the box will be taken by the flanges 48 of the covers which are in interlocking engagement with the flanges 25 of the body portion 12. It may be seen that by reason of this construction the weight of the box is evenly distributed upon the covers 13 and 14 and that, regardless of the amount of abuse to which the box is subjected, the covers will function properly since the supporting means is almost incapable of becoming damaged to the extent that it will not function. Attention is called to the fact that the pins 50 in no way aid in supporting the box but merely function to guide the covers to and from their open and closed positions.

While only one modification of this invention has been shown and described, applicant does not intend to be limited thereto, since it is obvious that other modifications and adaptations may 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 comprising a body portion and covers, said body portion having side and end walls of equal height, said side walls being provided with inwardly extending shoulders, downwardly extending flanges terminating said shoulders, pins pivotally mounting said covers upon said body portion, said covers comprising end and top walls, said top walls being formed to provide slightly flattened faces, the lowermost face of each cover terminating in inwardly extending flanges adapted to engage the flanges of said body portion whereby said body portion may be supported by said covers.

2. A tool box comprising a body portion and covers, said body portion having side

and end walls of substantially equal height, said side walls being provided with shoulders which terminate in downwardly extending flanges, pins pivotally mounting said covers upon said body portion, said covers being provided with slightly flattened faces, the lowermost face of each cover terminating in full length flanges adapted to engage said body portion flanges when said covers are in their closed position whereby said body portion may be supported by said covers.

closed and disengaged when said covers are opened.

In testimony whereof I have affixed my signature.

JOHN E. COE. 70

5 provided with slightly flattened faces, the lowermost face of each cover terminating in full length flanges adapted to engage said body portion flanges when said covers are in their closed position whereby said body portion may be supported by said covers. 75

3. A tool box comprising a body portion and covers, pins pivotally mounting said covers upon said body portion, flanges formed along the longitudinal walls of said body portion, said covers being provided with slightly flattened faces, the lowermost face of each cover terminating in full length flanges adapted to engage said body portion flanges when said covers are in their closed position whereby said covers may support the weight of said body portion. 80 85

4. A tool box comprising a body portion and covers, pins pivotally mounting said covers upon said body portion, integral flanges formed the full length of the longitudinal walls of said body portion, each of said covers being provided with slightly flattened faces, a flange terminating the lower face of each cover and adapted to interlock with said body portion flange whereby said covers, throughout their entire length, support the weight of said body portion. 90 95

5. A tool box comprising a body portion and covers, means securing said covers in operatable position upon said body portion, flanges formed in the longitudinal walls of said body portion, said covers being provided with slightly flattened faces, flanges terminating the edge of the lower face of each cover, said last named flanges being adapted to engage said first named flanges whereby said covers engage and support the weight of said body portion. 100 105

6. A tool box comprising a body portion and covers, pins pivotally mounting said covers upon said body portion, flanges formed in the longitudinal walls of said body portion and means forming part of said covers adapted to engage said flanges thereby supporting the weight of said body portion when said box is in its carrying position. 110 115

7. A tool box comprising a body portion, covers pivotally supported on said body portion, flanges terminating the lower edges of said covers, and means forming a part of said body portion adapted to removably engage said flanges whereby to support the weight of said body portion through said covers when said box is in carrying position. 120 125

8. A tool box comprising a body portion, covers pivotally supported on said body portion, mutually engageable and disengageable means on said body portion and covers, said means being engaged when said covers are 130