May 17, 1932. C. L. DEWEY 1,858,539

TACKLE BOX

Filed June 26, 1926 2 Sheets-Sheet 1

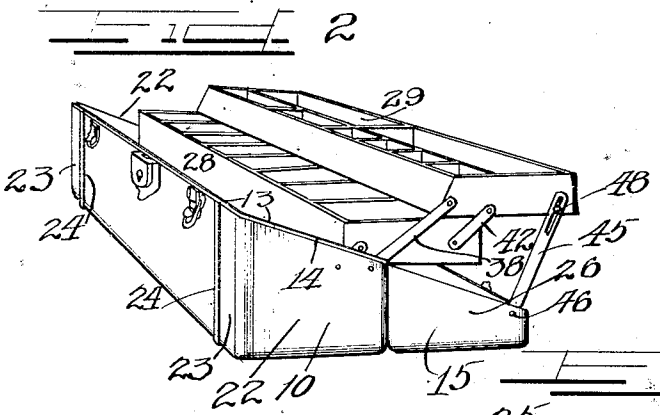

FIG. 2

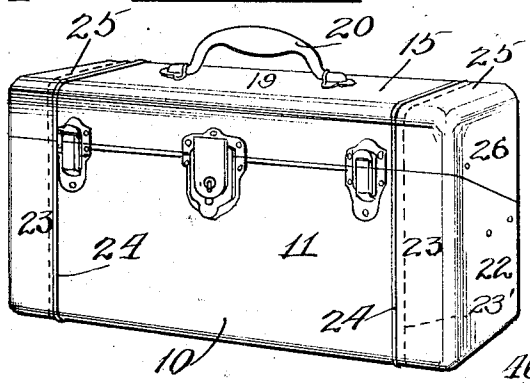

FIG. 1

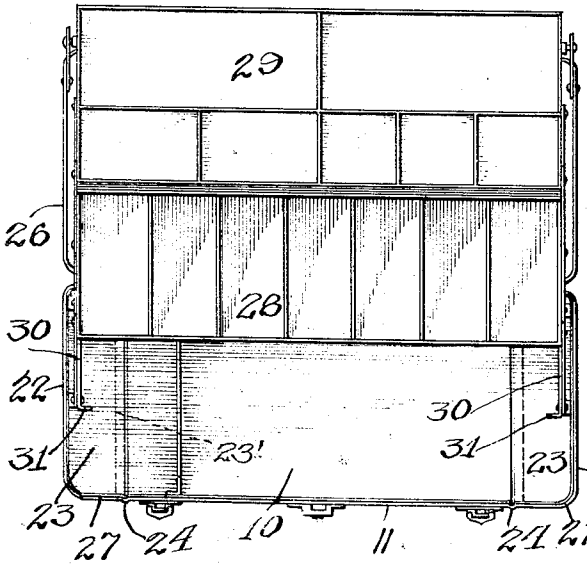

FIG. 4

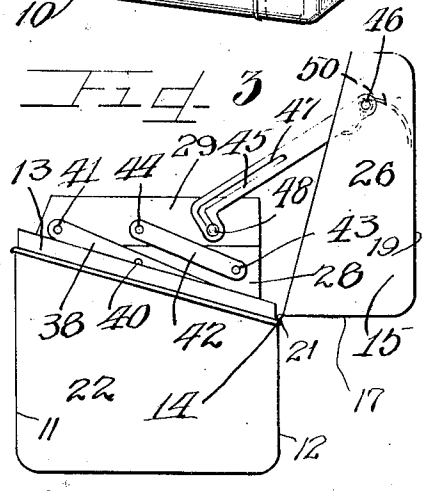

FIG. 3

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FIG. 5

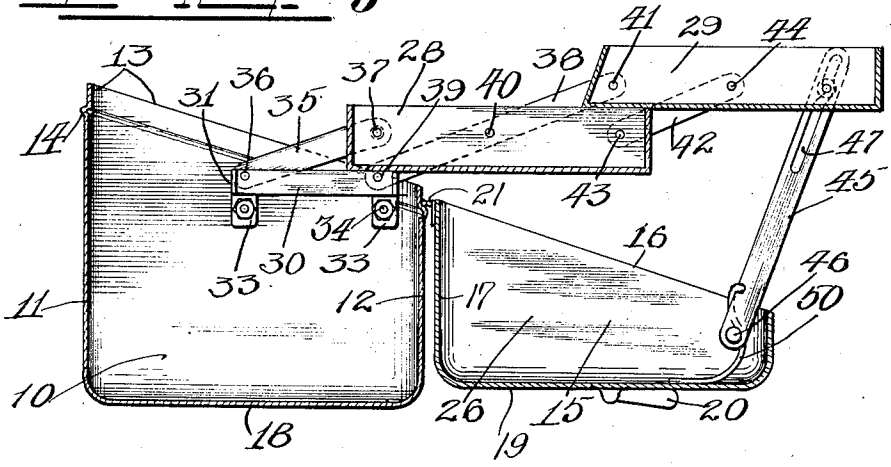


FIG. 6

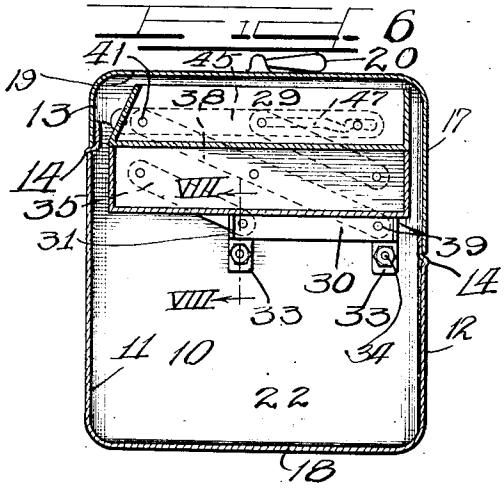


FIG. 7

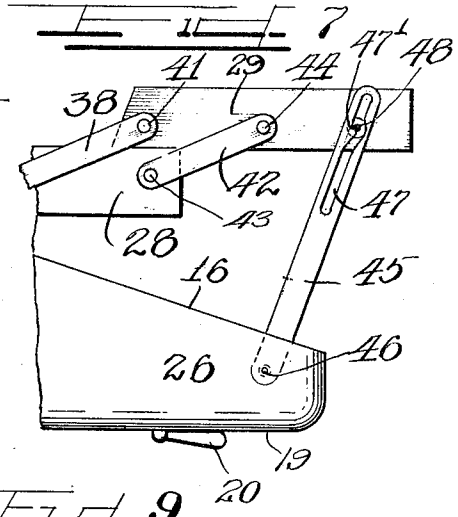


FIG. 8

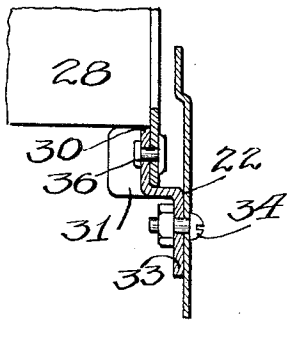
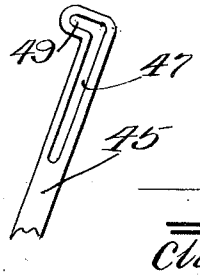


FIG. 9



INVENTOR

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ATTYS

Patented May 17, 1932

1,858,539

UNITED STATES PATENT OFFICE

CLARENCE L. DEWEY, OF ELKHART, INDIANA, ASSIGNOR TO OUTING MANUFACTURING COMPANY, A CORPORATION OF INDIANA

TACKLE BOX

Application filed June 26, 1926. Serial No. 118,616.

This invention relates to improvements in tackle boxes.

One object is to provide an enclosing box having a relatively low rear wall and a plurality of linked swinging trays which are withdrawn from the box by the mere act of opening the box by the lifting of its cover and which arranges the trays in terraced relation with the front edge of the lower tray in a plane above said wall thereby exposing the entire interior of the box and of the trays for convenient access.

Another object is to provide a box in which the box and its cover in conjunction with its carrying handle serve as a wide base support for the trays when the box is open.

Another object is to provide improved supports for the trays when the box is opened and closed.

Another object is to provide a new improved box structure within which the trays are enclosed and which, in virtue of its peculiar shape, forms a wide solid base for the trays and low center of gravity when the box is open so that the box cannot be easily upset and discharge its contents.

Another object is to provide a container or box in which the box body and its cover are divided at the ends, on lines that extend downwardly and rearwardly from the front of the box, so that when the cover is in full open position, its marginal end edges are in substantially the same oblique plane as the marginal edges of the ends of the box body, to permit the enclosed trays to be shifted rearwardly and to rest at a low elevation without impairing or contracting the containing capacity of the front part of the box body, and to preserve low center of gravity to prevent the box from tipping over.

Another object is to provide a box as above, and trays therein shifted by movement of the cover from closed or stacked position, to open or extended position, and in which the trays are in substantially the same horizontal plane whether the box be opened or closed, and in which the bottom tray does not rest in either position with its upper edge in a horizontal plane, materially above the upper front edge of the box body, thereby to maintain a low center of gravity.

Another object is to provide a handle for the box which exercises a double function, (*a*) serving as a handle, by which the box may be carried, and (*b*), as a support for the cover when the cover is in full open position.

Another object is to provide a box which has a low center of gravity when the box is open and which is substantially water tight when it is closed so arranged that the act of opening the box shifts the weight of the trays, and contents from the high heavier side to the low lighter side of the box proper over the cover, which then, with the handle, becomes a part of the base.

Other objects, advantages, benefits and refinements will hereinafter appear and become apparent to persons skilled in the art from a consideration of the following description in conjunction with the drawings wherein;

Figure 1 shows the box closed.

Figure 2 shows one form of the box open.

Figure 3 shows the box with the trays in partly closed position.

Figure 4 is a plan view of Figure 2.

Figure 5 is an enlarged transverse section of Figure 1, showing the box open.

Figure 6 is a similar section through Figure 1, showing the tray links in broken lines.

Figure 7 is a fragmentary view showing modification of Figure 5.

Figure 8 is a fragmentary enlarged section taken on line VIII—VIII of Figure 6.

Figure 9 is a fragmentary elevation of one of the links such as shown in Figure 3 which connect the cover to the top tray.

In all the views the same reference characters indicate similar parts.

In the drawings:

The hollow body of the box is indicated by 10. Its front wall 11 is wider or higher than its rear wall 12, and the end walls are correspondingly tapered. The upper marginal edge 13′ of the box is provided with an outstanding rib 14. The margin 13′ is for telescoping relation with the cover 15 and extends thereinto to provide a rain proof overlapping joint when the box is closed and the

cover is in place thereon, as shown in Figures 1 and 6. The bead 14 serves as a stop for the marginal edge 16 of the cover.

Considering the cover 15, when it is in place on the box, its rear side wall 17 is less in height than the rear wall 12 of the box, so that when the cover 15 is in full open position, as shown in Figure 5, the bottom wall 18 of the box and the top wall 19 of the cover will lie in nearly the same horizontal plane to thereby afford an enlarged supporting base for the box and its outstanding trays when the box is fully open.

This feature is of considerable value for when the box is in a wave rocked boat it is subjected frequently to variation of position with respect to its normal center of gravity, and unless it is provided with a relatively large base surface it will be overturned and the contents spilled out. In this box, the cover and handle become parts of the base when in full open positions.

Figure 5 shows the box open and the cover 15 resting on the carrying handle 20. In this instance the handle with the cover forms part of the base support and prevents the body 10 from laterally rocking.

The relatively low wall 12 of the box and the relatively high wall 17 of the cover are hinged together at 21.

The end walls 22—22 of the box are suitably secured to the side walls 11 and 12 thereof as by spot welding. In the structure shown the end walls 22 are returned at their bottom and side edges for telescoping connection with the bottom and side walls of the box so that the side walls and bottom walls of the end pieces overlap the respective intermediate walls of the box structure. The flanges of the end walls are indicated by 23.

A bead 24 extends around the box and cover in the same plane to abut the edges of the flanges 23 of the box and the flanges 25 of the end walls 26 of the cover. The broken lines 23′ indicate the ends of the center portions of the body and cover.

Enclosed in the box and cover respectively, the trays 28 and 29 are shown in stacked relation in Figures 3 and 6, and in terraced relation in Figures 2, 4, 5 and 7 with tray 29 always above tray 28. They are in horizontal planes of the same elevation when opened or closed.

When stacked and the box is closed, tray 28 rests upon cross bars 30—30 secured to the end walls 22. Each of the bars 30 has an inturned end 31 at each of its ends to provide a wider surface to support tray 28. A down-turned projection 33 at each end of the bar 30 forms a bracket by which the bars are connected to the respective ends 22 of the box, in horizontal planes, by screws 34, or otherwise as best practice may dictate. It will be noted in Figures 2 and 3 that the front wall of the upper tray 29 has a slight rearward slope so that the front wall of the cover may move thereover.

At each end of the box a link 35 is pivoted to the inner end of the bar 30, as at 36 and to the tray 28, as at 37. Another link 38, longer than the link 35, is pivotally connected to the outer end of the bar 30 as at 39 and to a point near the transverse center of the tray 28, at 40, and again to tray 29 at 41. This link is necessarily longer than the link 35. Another link 42 is hinged to tray 28 at 43 and to tray 29 at 44.

The links 35, 38 and 42 at all times occupy positions in which they are parallel with each other. The outer side of tray 29 is supported, when the box is open, by link 45. This link, of which there is one at each end of the tray just as referred to with respect to links 35, 38 and 42, is pivoted to the end walls 26 of cover 15 at 46. These links support the outer edge of tray 29 on the cover 15. The link 45 is more clearly shown in Figure 9 in its open position. The link 45 is slotted at 47, in which the rivet 48 slides when the box is being closed. There is a shoulder 49 formed in the slot by laterally displacing the slot near its upper end to provide a more positive support for the tray 29. A spring 50 may be used to yieldingly hold this shoulder under the rivet 48 if desired, although the spring may be dispensed with as the rivet 48 will automatically enter the slot above the shoulder and remain there in open position and until the cover 15 reaches the position shown in Figure 3, after which the upper end of the links 45 may be gently pressed forwardly and the cover moved to closed position. As shown in Fig. 7, a shoulder such as 47′ may be used in lieu of the shoulder 49 above described.

When the cover of the box occupies the position shown in Figure 3, the trays 28 and 29 are stacked in their final closed position in the box, and upon further downward closing movement of the cover, the slot 47 moves along the rivet 48 until the link 45 occupies a horizontal position as shown in broken lines in Figure 6.

The rear side wall of the box is approximately the same height as the adjacent side wall of the cover, and the upper edges of the box and the cover are in the same oblique plane, this arrangement permitting the bottom tray to be lifted over the lower rear wall of the box when the box is being opened.

Convenient closing of the box may be accomplished by grasping the front of the top tray and pulling the same laterally toward the front wall of the box. This results in a lateral shifting of the trays to closed position and also moves the cover to vertical position where it may be conveniently closed.

A box of the general character that can be easily upset will not be favored by a fisherman. When the box is closed, the upper tray

very effectively covers the lower tray and the cover closely approximates the upper edge of the upper tray. This prevents small articles from being spilled out of the trays should it be turned over.

By providing a rear wall of the box which is substantially much lower than the front wall thereof, the lower tray never rests at an altitude higher than the front wall of the box. Because of this advantageous design of structure, the center of gravity is brought down to the lowest point without materially decreasing the available cubical contents of the box body.

The high side is heavier than the low side and serves to counter-balance the cover and tray, in a manner, when they are shifted to open positions.

I am aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted hereon, otherwise than necessitated by the prior art.

Having described my invention, what I claim is:

1. A box including a box body and cover divided at the ends to provide one relatively high rigid front wall of the box body and a relatively low rear wall therefor, said high and low walls being connected by slanting edges of such location as to cause said rear wall to be of substantially one half the over-all height of the box and whereby said slanting edges of said body and cover will aline themselves when the cover is in open position, the rear wall of said body and cover being hinged together, in combination with a tray, links for connecting said tray to the body, pivot points between the links and said box body disposed substantially at portions of said box body between a horizontal plane projected from the top of said rear wall and the slanting edges of said box body and an operative connection between the tray and the cover to move said tray over said low rear wall to a position of rest above the cover when the cover is moved to a full open position with its top in a plane substantially parallel to the plane of the box body bottom.

2. A receptacle divided transversely at its ends on a downwardly and rearwardly inclined oblique plane to provide a box and cover with slanting edges, the front wall of the box being rigid and taller than the rear wall, and the rear walls of the cover and box being hinged together, said rear wall being of substantially one half the over-all height of the receptacle so that the slanting edges of said box and cover will aline themselves and the top of the cover will be disposed in substantially the plane of the bottom of the box when the cover is in open position, in combination with a plurality of trays linked at their ends to the box and cover and movable over the lower rear wall by movement of the cover to open position, and to a position of rest where the bottom of the lowermost tray is lower than the upper edge of the front wall, said trays being movable about pivot points disposed substantially at a horizontal plane projected from the top of said low rear wall of the box.

In testimony whereof I have hereunto subscribed my name.

CLARENCE L. DEWEY.