Dec. 25, 1928. 1,696,193

B. DELAND

FOLDING TABLE

Filed Oct. 23, 1924 2 Sheets-Sheet 1

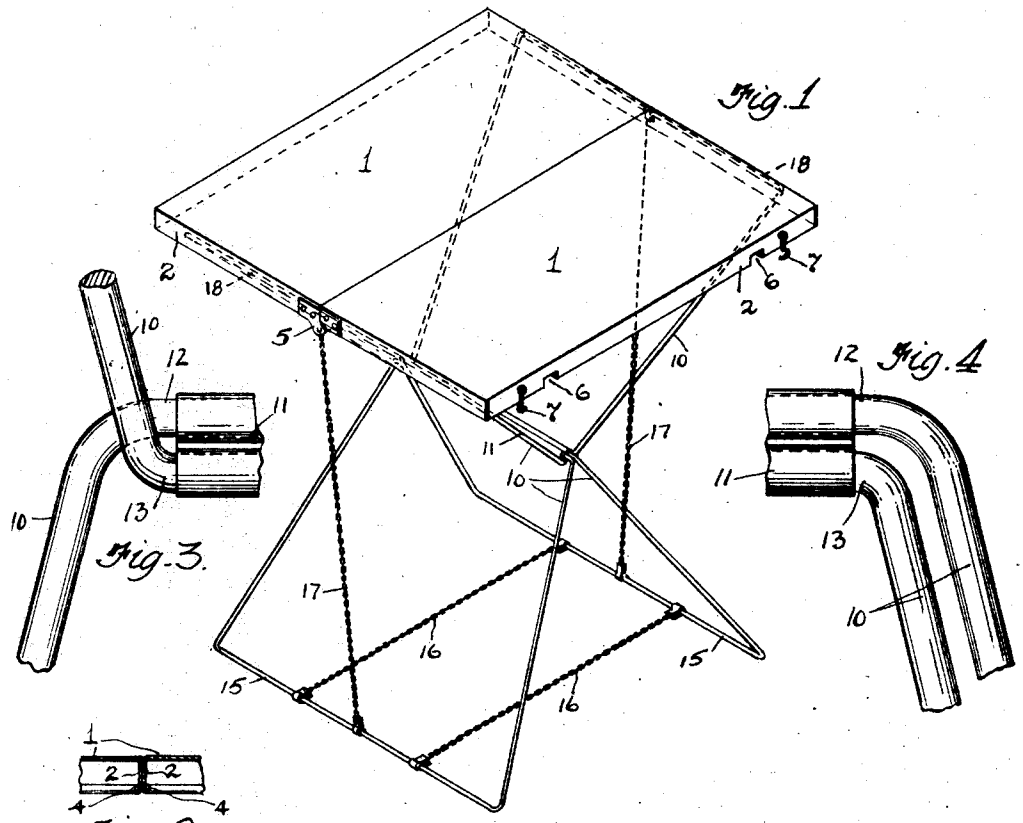


Fig. 1

Fig. 3.

Fig. 4

Fig. 6

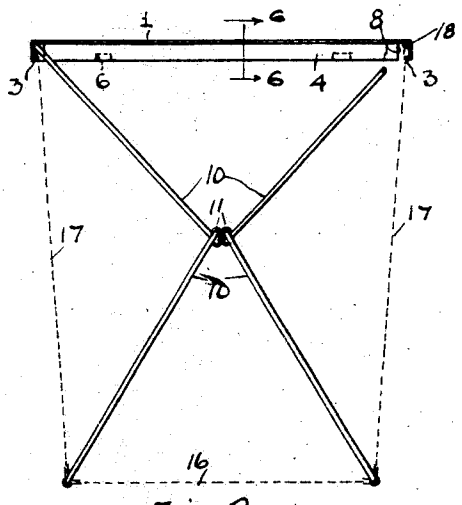


Fig. 2

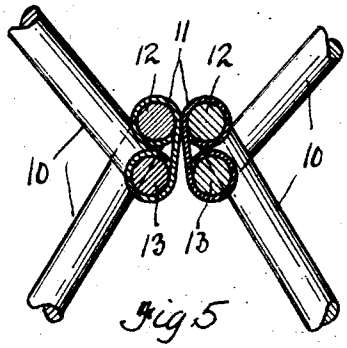


Fig 5

INVENTOR.

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B. DELAND

FOLDING TABLE

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Fig. 8

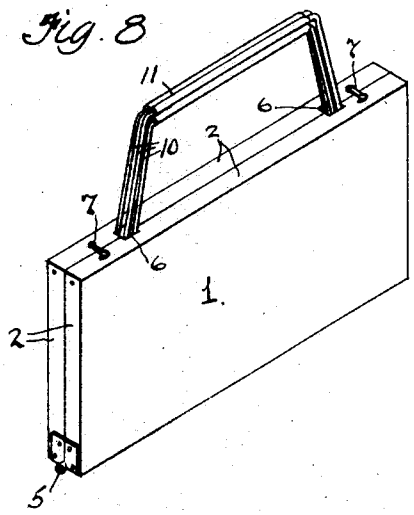


Fig. 9

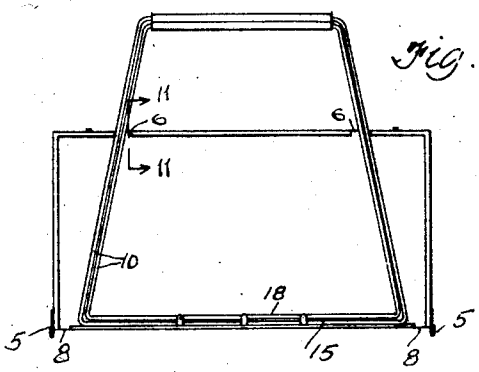
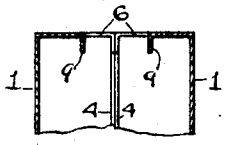


Fig. 11



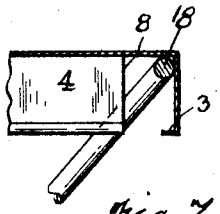


Fig. 7

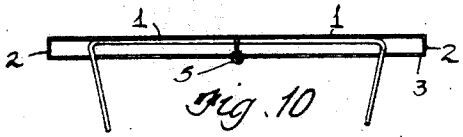


Fig. 10

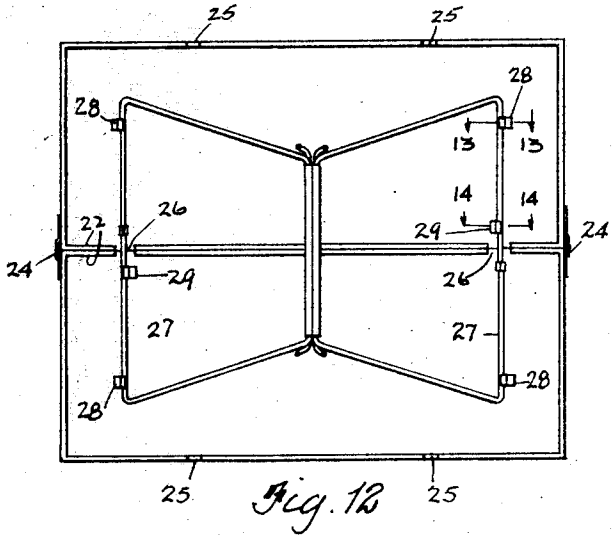


Fig. 12

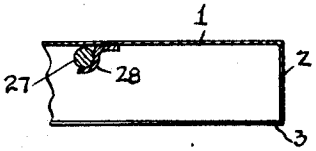


Fig. 13

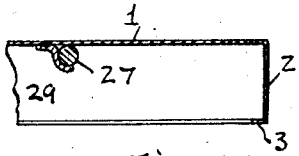


Fig. 14.

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UNITED STATES PATENT OFFICE.

BENJAMIN DELAND, OF SOUTH EUCLID, OHIO.

FOLDING TABLE.

Application filed October 23, 1924. Serial No. 745,369.

The present invention relates to folding tables, and more particularly to the construction of a table comprising a top foldable into a box or case and a collapsible support. The case when folded is adapted to receive the support which is extended out through one side to form a convenient handle. The box is also adapted to receive a set of folding chairs or stools of the type shown in United States Letters Patent No. 1,215,689. Thus the device consists of a set of chairs and a table readily and easily set up or collapsed and made into a single package easily carried about. Besides being easily set up or collapsed, the support provides a sturdy, stiff table which has plenty of leg room. It is so made that it may be easily packed but not easily bent or broken and yet is comparatively light in weight.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—

Fig. 1 is a perspective view of the table set up ready for use; Fig. 2 is an end elevational view thereof; Figs. 3 and 4 are elevational views of the joint in the supporting member in its open and closed positions respectively; Fig. 5 is a sectional view through the joint of the supporting member; Fig. 6 is a sectional view on the line 6—6 of Fig. 2; Fig. 7 is a sectional view of a detail of Fig. 2; Fig. 8 is a perspective view of the table closed with the supporting member extending outwardly as a handle; Fig. 9 is a side view of the table with the outside removed to show the packing of the supporting member; Fig. 10 is a sectional view through the table top and supporting member to show the manner of assembly; Fig. 11 is a fragmentary sectional view on the line 11—11 of Fig. 9; Fig. 12 is a bottom plan view of a modified form of table top; and Figs. 13 and 14 are fragmentary sections on the lines 13—13 and 14—14 respectively of Fig. 12.

The present table top consists of two flat top pieces 1 each having a depending flange 2 around its outer edges with inturned lower edge 3. The meeting side of each of the two pieces likewise has the downwardly extending flange 2 but has a rolled edge or double flange 4 at the bottom. These flanges 2 are secured together at the corners in any suitable manner and the two top pieces are hinged together along the flanges by means of hinges 5 fastened to the ends. When folded together, they form a box or case as best illustrated in Fig. 8 and the top flanges 2 are provided with aligned slots 6 providing openings. Suitable fastening means such as hooks and pins 7 are provided for maintaining the case in its closed position. The cut edges of the slots 6 are bent inwardly to form tongues 9. The meeting flanges 4 are slotted as at 8 near the ends to receive the support as will be hereinafter more fully described.

The support consists of four members 10, each trapezoidal in shape and each made of a rod or bar bent to shape. The four members are hinged together at their small sides by being enclosed in two sets of double tubes 11 which are secured together by welding or the like. The horizontal upper sides 12 of the two lower members are pivotally mounted in the two upper tubes, the lower sides 13 of the upper two members being similarly pivoted in the two lower tubes. The pivoted sides 13 of the two upper trapezoids are slightly shorter than the pivotal sides 12 of the lower members and Figs. 3, 4 and 5 are thought to clearly illustrate the position of the parts in their folded and extended positions. To limit the spread between members, the two bottom rods 15 of the lower members are connected together by foldable connections such as chains 16 or straps which may be folded. Each bottom rod 15 is also connected by a similar chain or strap 17 to the top rod on the same side.

The attaching of the table top to the support is accomplished by first spreading the support into its extended position. The two top bars 18 of the support are then sprung under the inturned edges 3 of the end flanges 2. The meeting side flanges with the rolled edge 4 are slotted as at 8 next to the end flanges to receive the rods as best shown in Fig. 7. The tension of the support presses the rods 18 outwardly against the sides of the flanges 2 and the inturned edges 3 prevent accidental removal or the lifting up of the top by breaking it at the hinges.

Where a table top of increased size is desired, the hinged box is formed in the usual manner with the meeting flanges 22 which are hinged at the ends by the hinges 24 as shown in Fig. 12. The flanges 22 of the top of the case when folded are slotted as at 25 to receive

the support in its folded form and the meeting flanges 22 are slotted as at 26 to receive the top bars 27 of the support. On the inner surface of the top at the correct distance apart are placed a series of clips, preferably three to each side. The outer two clips 28 of each set are turned in the same direction preferably inwardly so as to receive the horizontal upper rod of the support. The center clip 29 of each set is turned the other way so as to hold the support against inward movement. In placing the support in position, the bar must be sprung into place over the center clip and the normal resiliency in the support is enough to hold the top firmly on the support.

In packaging the table, the support is collapsed about the double center hinge forming a trapezoid which is placed in one side of the case with the sides extending out through the slots or openings in the top and the double hinge or center portion forms a convenient handle for the case as best shown in Figs. 8 and 9. The case is large enough to contain four of the chairs mentioned and thus furnishes a complete outfit. The support allows plenty of foot and leg room under the table and the two cross bars of the support which rest on the ground or floor are so positioned that the feet of the persons sitting at the table usually rest thereon which ends in making the table firm.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. A folding carryable table consisting of a table top formed of two similar open box like portions hinged together and adapted when closed to form a case, and a detachable support for said top consisting of four open trapezoidal shaped members hinged together at their adjacent ends and adapted in its open position to have a holding spring fit within and against the sides of the top portions, and in its closed position to fit within the case with the pivotal connections extending to form a handle.

2. A folding table consisting of a table top formed of two similar portions each consisting of a flat portion with a continuous flanged edge extending at right angles, the two portions being hinged together along one flange so as to close to form a case, the closing flanges being notched to provide openings at the top of the case, and a collapsible support for said table top consisting of four trapezoidal shaped members pivoted together at their adjacent ends and adapted when opened to engage under the top and against the side flanges of the top portions to support the top and when collapsed adapted to fit within the case with the sides and hinge portion extending through such openings to form a handle.

3. A folding table consisting of a table top formed of two similar portions each consisting of a flat portion with a continuous flanged edge extending at right angles, the two portions being hinged together along one flange so as to close to form a case, the closing flanges being notched to provide openings at the top of the case, a collapsible support for said table top consisting of four trapezoidal shaped members pivoted together at the center and adapted when opened to engage under the top and against the side flanges of the top portions to support the top and when collapsed adapted to fit within the case with the sides and hinge portion extending through such openings to form a handle, means connecting said four trapezoidal members and adapted to limit their extended position, and means to lock the two top portions together as a case and to permit the support to be used as a carrying handle.

4. The combination of a folding table top consisting of two portions hinged together and adapted to form a closed case when folded, and a collapsible table support adapted to maintain the open position of said table top when open and adapted to fit within said case with a portion extending to form a handle.

5. The combination of a folding table top consisting of two half members hinged together adapted to form a closed case when folded, each of said members having a depending flange around its edges and having complementary slots formed in two of said flanges, and a collapsible table support adapted to fit within said case with a portion of said support projecting through said slots to form a handle.

Signed by me this 20th day of October, 1924.

BENJAMIN DELAND.