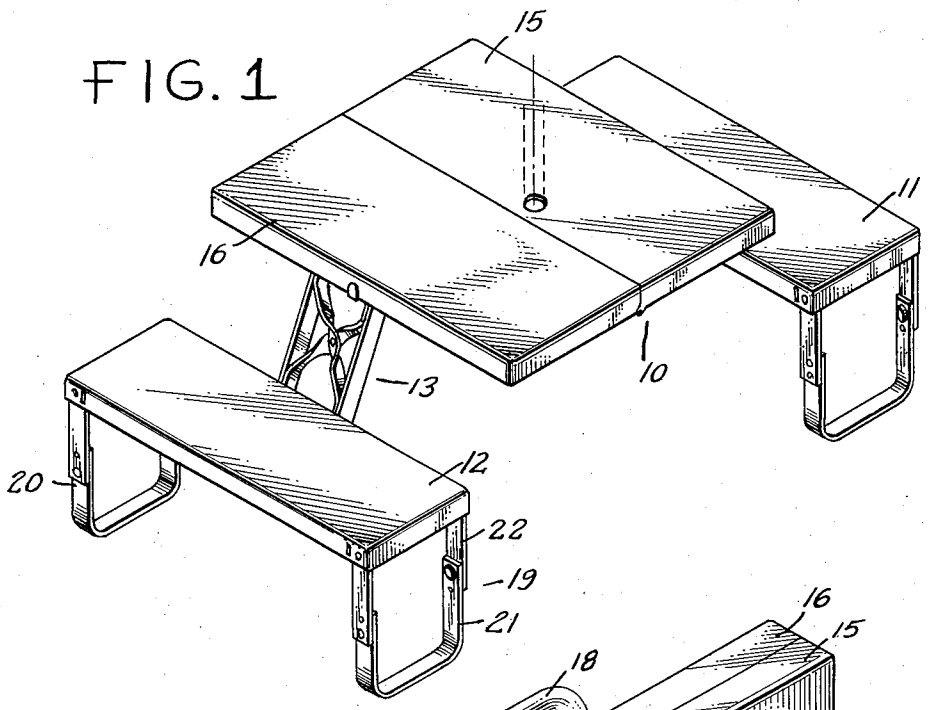
July 11, 1961 H. POST 2,991,829

PORTABLE TABLE-CHAIR SET

Filed April 24, 1959 4 Sheets-Sheet 1

FIG. 1



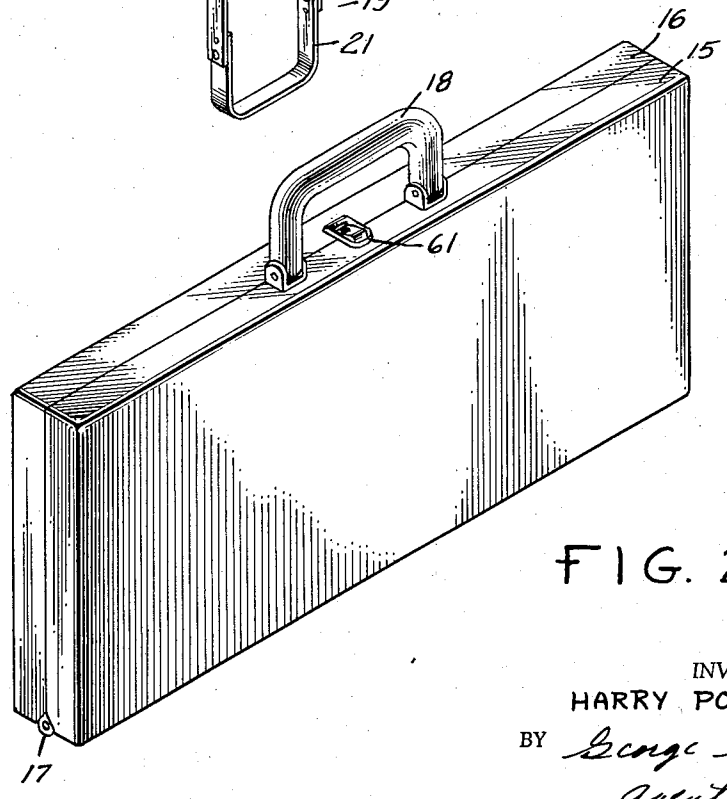


FIG. 2

INVENTOR.
HARRY POST
BY George Spector
Agent

July 11, 1961 H. POST 2,991,829

PORTABLE TABLE-CHAIR SET

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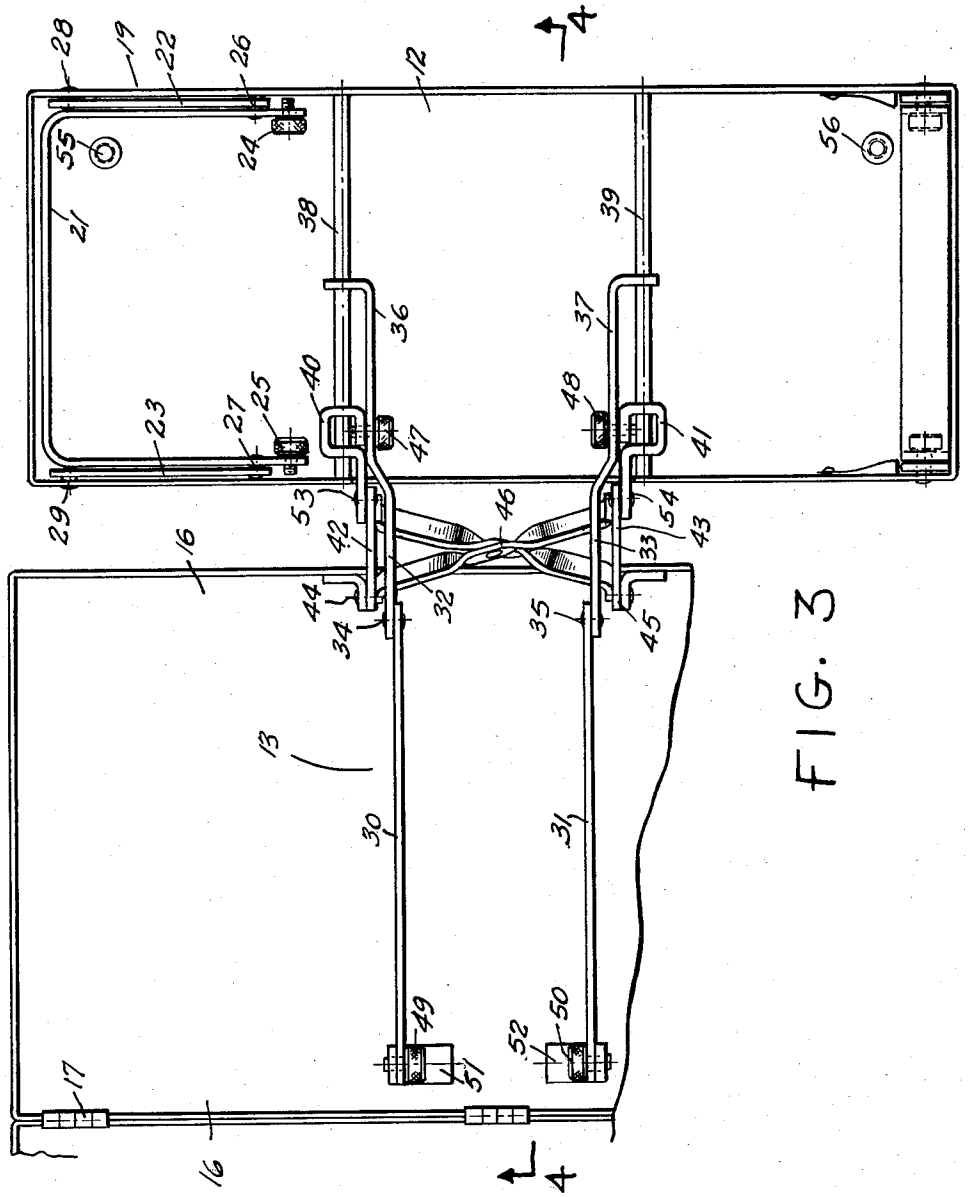


FIG. 3

INVENTOR.
HARRY POST
BY George Spector
Agent

July 11, 1961 H. POST 2,991,829

PORTABLE TABLE-CHAIR SET

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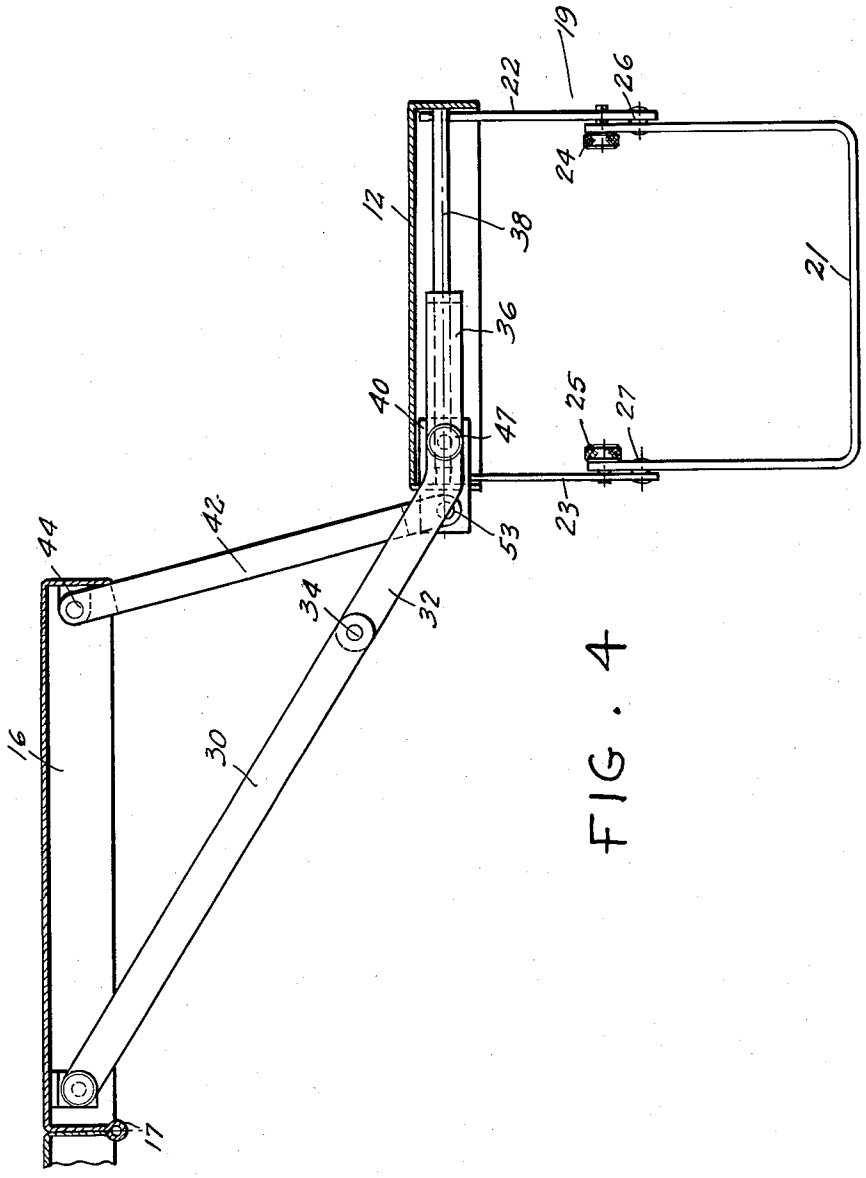


FIG. 4

INVENTOR.
HARRY POST
BY George Spector
Agent

July 11, 1961 H. POST 2,991,829

PORTABLE TABLE-CHAIR SET

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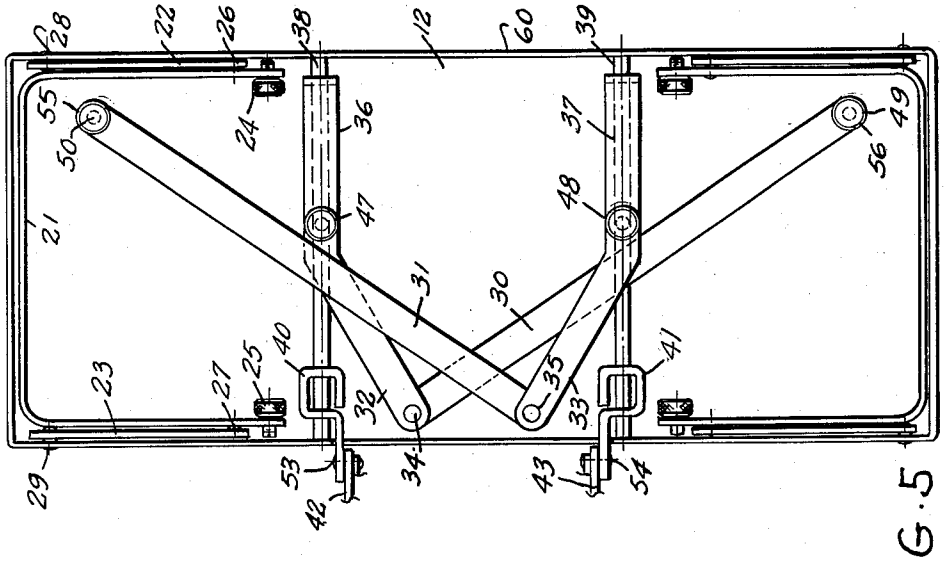


FIG. 5

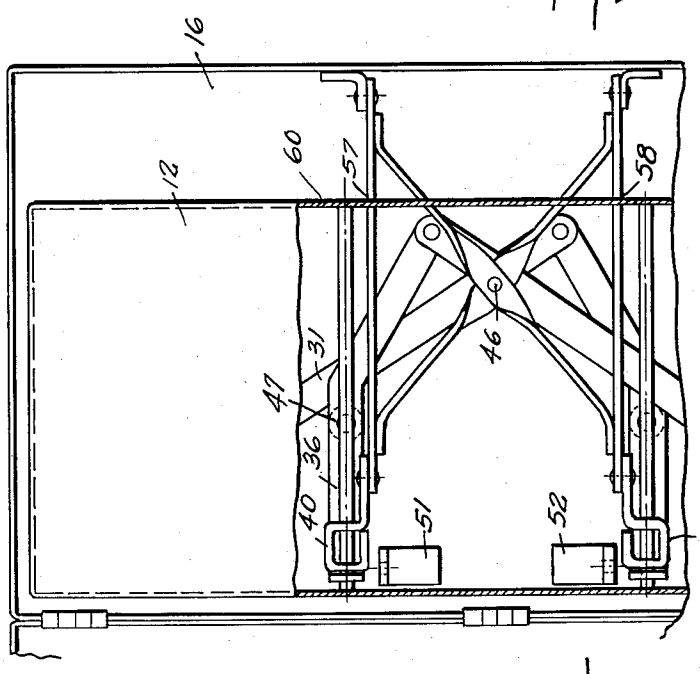


FIG. 6

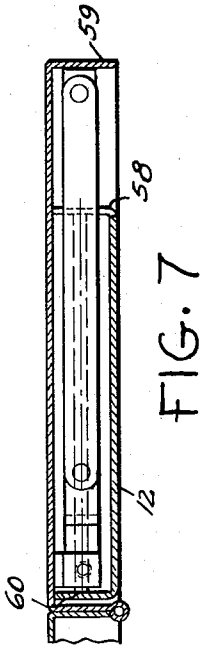


FIG. 7

INVENTOR.
HARRY POST
BY George Spector
Agent

United States Patent Office

2,991,829

Patented July 11, 1961

2,991,829

PORTABLE TABLE-CHAIR SET

Harry Post, 1915 Surf Ave., Brooklyn, N.Y.

Filed Apr. 24, 1959, Ser. No. 808,821
2 Claims. (Cl. 297—139)

This invention relates to improvements in desk-chair assemblies which fold into a compact carrying case for convenient transportaton.

In previous arrangements of this type of device, cumbersome awkward structures are disclosed which are both difficult to manufacture and too heavy for handling by women or persons of average strength. The instant device provides an assembly which can be conveniently handled and is relatively simple to fabricate by incorporating a novel linkage connection between the table and chair. This novel linkage permits the user to rapidly collapse the table chair assembly by a folding action of the chair into a table cavity. The connection between the table and the chair is made on the under side of the chair and thus unsightly apertures and lost space is avoided at the sitting area of the chair.

Consequently the primary object of this invention is the provision of a table chair set assembly wherein the chair can be folded into a cavity in the table to form a compact case for convenient transportation which is light in weight and simple to operate and fabricate.

Another object of this invention is the provision of a chair-table assembly which is collapsible into a compact, lightweight carrying case wherein an improved linkage is employed to attach the table to the chair without forming apertures in the chair sitting surface.

The improved portable table-chair set provided herein is primarilly intended for use as a card playing or dining set, although other uses are contemplated.

Additional objects and inventive features of this invention will become apparent from the following detailed description, claims and attached drawings in which:

FIGURE 1 is a perspective assembly of the novel set.

FIGURE 2 is a perspective view of the set when collapsed and ready for transportation.

FIGURE 3 is a partial plan view of the underside of the device when opened for use showing details of the novel linkage employed.

FIGURE 4 is a partial side view in section taken along plane 4—4 of FIGURE 3.

FIGURE 5 is a partial plan view of the underside of the set during a phase in sequence used to collapse the table.

FIGURE 6 is a view similar to FIGURE 5 showing the next step in the sequence.

FIGURE 7 is a partial sectional view taken along plane 7—7 of FIGURE 6 showing additional details of the linkage.

Detailed description

Referring to the above described drawings and to FIGURES 1 and 2 in particular, the improved set is seen to comprise a table **10** connected to a pair of identical chairs **11** and **12** by a bracket assembly **13** on one side of the table and an identical bracket assembly on the opposite side of the table (not seen in the drawings). The structure of each chair and the linkage or bracket **13** which connects the chair and each side of the table is identical, thus for brevity only chair **12** and its connection with the table will be described in detail. The table **10** is formed with symmetrical halves **15** and **16** which are pivotally connected by hinges **17**. When the set is collapsed, halves **15** and **16** meet to form the case shown in FIGURE 2 and carried by a handle **18**, suitable means being provided to latch the halves together.

Each chair includes a pair of oppositely disposed legs **19** and **20** of identical construction which are collapsible into a space on the under side of the chair. Since the construction of the legs is identical only leg **19** will be described in detail.

Referring now to FIGURES 3 and 4 in particular, the collapsible leg **19** is seen to comprise a lower U-shaped base **21**, pivotally secured at each open end to a pair of similar supports **22** and **23**. Set screws **24** and **25** interconnect supports **22** and **23** respectively with the corresponding end of base **21** to maintain the leg **19** in rigid condition by preventing pivotal motion of the supports about hinges **26** and **27**. Supports **22** and **23** are also pivoted to the base of the chair by hinges **28** and **29**. To collapse the legs into the space on the underside of the chair. Set screws **24** and **25** are operated to release the supports **22** and **23** for pivotal motion about the hinges **26** and **27** and the base supports are folded against the chair as shown in FIGURE 3.

Bracket **13** connects the table half **16** at its underside to the chair **12** at its underside thereby avoiding the formation of holes in the chair surface. The novel connection is effected by the following structural components. A link **30** and a similar link **31** are pivotally connected to links **32** and **33** in parallel fashion with the hinges **34** and **35**. Projecting from the opposite ends of links **32** and **33** are slide rods **36** and **37** which slide along the guides **38** and **39** rigidly secured to the bottom of the chair. Rods **36** and **37** are slotted to receive the guides **38** and **39**. At the outer edge of the table another pair of links **42** and **43** are pivotally secured by the hinges **44** and **45**. The opposite ends of links **42** and **43** are each pivotally attached to a crossframe **46** by hinges **53** and **54**. Also pivotally secured at hinges **53** and **54** are the guide bars **40** and **41** which also slide along guides **38** and **39** as tracks. It is also to be noted that the upper ends of links **42** and **43** are pivotally attached to the crossframe **46** at the hinges **44** and **45** whereby the said crossframe cannot move linearly relative to the table but it can slide relative to the chair.

When the table is opened for use the links **30** and **32** are in alignment forming a rigid strut to support the table. Link **42** also acts as a strut by its connection to bar **40**. To complete the substantially triangular framework formed by these links and hinges bar **40** rod **36** are secured by the set screw **47** which can also bear on guide **38** for the purposes of further stabilizing the framework with frictional forces. A similar arrangement exists on the other side of crossframe **46** where a set screw **48** connects rod **37** with bar **41**. It is thus seen that table half **16** will be supported rigidly in the open position of FIGURE 4 when the links have been opened.

The method of folding the set into a compact case for transportation can be better understood by referring to FIGURES 5, 6 and 7. The first step in this process however is done from the position shown in FIGURE 3. Links **30** and **31** are detached from the table at their upper ends by opening screws **49** and **50**. Then link **30** is pivoted towards the observer in FIGURE 3. Set screw **47** is loosened and rod **36** is rotated about guide **38** as an axis until rod **36** is superimposed over guide **38** as seen in FIGURE 5. The latter rotation of rod **36** will cause link **30** to assume the position shown in FIGURE 5. The same procedure is followed with the links **31** and **33** to form the symmetrical configuration seen in FIGURE 5. To cause the linkage to fall within the space of the bottom of the chair rods **36** and **37** are slid axially along their respective guides **38** and **39**. Now the chair is rotated 180 degrees about the longer axis and placed into the space of the underside of the table half **16**. This results in the position shown in FIGURE 6. In this phase the bars **40** and **41** slide along the guides **37** and

38 until they contact the slotted ends of the rods 36 and 37. Also it should be noted that the edge of the chair nearest the table hinges 17, falls between the hinges 17 and the brackets 51 and 52 used to effect a connection with links 30 and 31 as shown in FIGURES 3 and 4.

When links 30 and 31 are folded into the bottom cavity of the chair as seen in FIGURE 5, they are secured in such position by means of set screws 49 and 50 being threaded into holes 56 and 57 provided in the chair bottom. So as to permit the chair 12 to lie flat and fully within the walls 59 of the table (FIG. 7) slots 57 and 58 are provided in the side edges 60 of the chair thereby permitting the nesting of the links 42 and 43 therein. Thus it is seen that the entire chair and connecting bracket linkage folds easily into the table half cavity on each side of the set. The assembly is completed by now folding the halves 15 and 16 together and latching them with a latch 61 as seen in FIGURE 2. To erect the set for use the procedure is reversed as apparent.

It is now apparent that a table-chair set has been provided which can easily and rapidly be converted by any unskilled person into a lightweight compact travelling case. Although the linkage is effective in maintaining a solid table chair combination when opened, the cross-section of material required to accomplish this result has been reduced to a minimum. Moreover all this has been accomplished without placing holes in the chair surfaces for the linkage connections as is the case in conventional designs.

Having thus described in detail the nature of this invention a grant of Letters Patent is requested for the novel features disclosed herein as defined in the following claims.

I claim:

1. A table-chair combination comprising a table having folding halves and two similar chairs arranged symmetrically on each side of the table with identical linkages connecting the bottoms of each chair with the adjacent half of the table, each of said linkages comprising a pair of links pivotally attached to the bottom of the table at transversely spaced points, including a pair of slide rods, each attached pivotally to the end of the links remote from the table, in further combination with a guide means affixed to the bottom of the chair, said slide rods being slidably and rotatably connected to the guide means at spaced transverse positions, whereby the ends of the rods remote from the said links are adapted to slide transversely along the said guide means, in further combination with means for adjustably securing the said rods to the said guide means at predetermined locations, the rotatable connection between said slide rods and the guide means permitting rotation of the rod about the axis of the guide means whereby the said rod and attached link can be positioned wholly under the chair when the link is detached from the table.

2. A table-chair combination, as in claim 1, including a second set of linkages parallel to the first said linkages and arranged symmetrically on each side of the table with identical second linkages connecting the bottoms of each chair with the adjacent half of the table, said second linkages including a cross frame.

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