Aug. 18, 1964 S. J. MERINGOFF 3,144,841

FOLDABLE PING-PONG TABLE

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FIG. 1

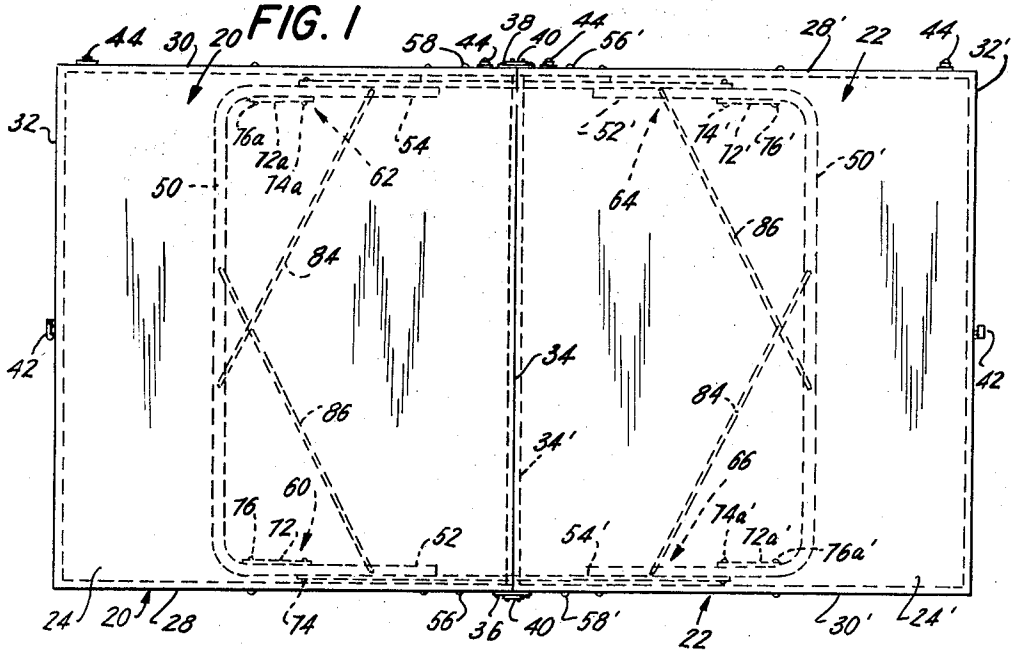
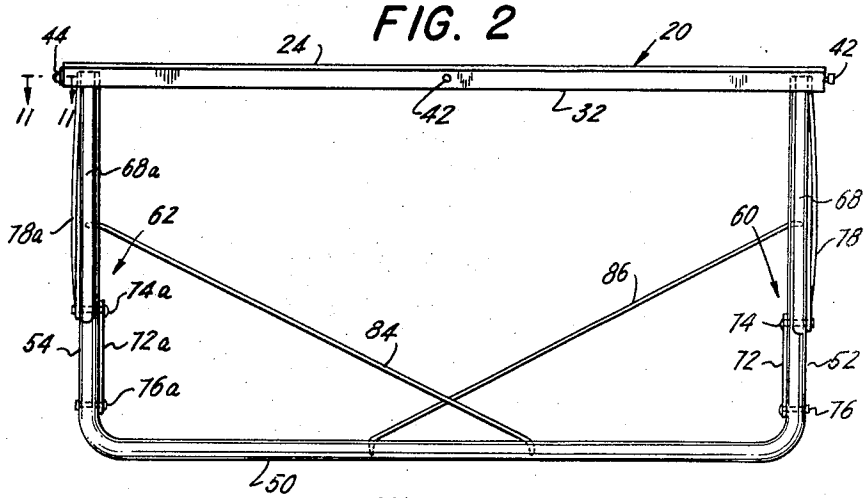
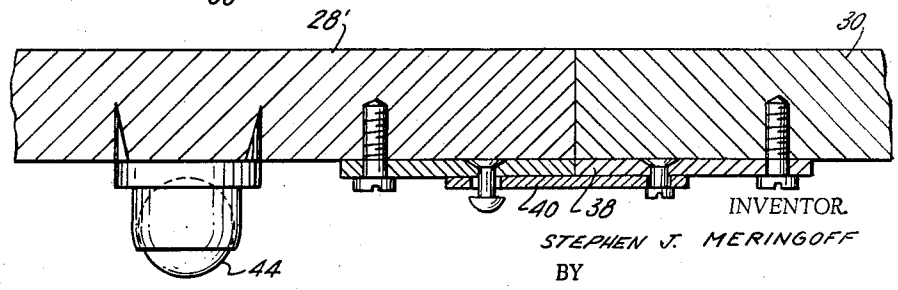


FIG. 2





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FIG. 11

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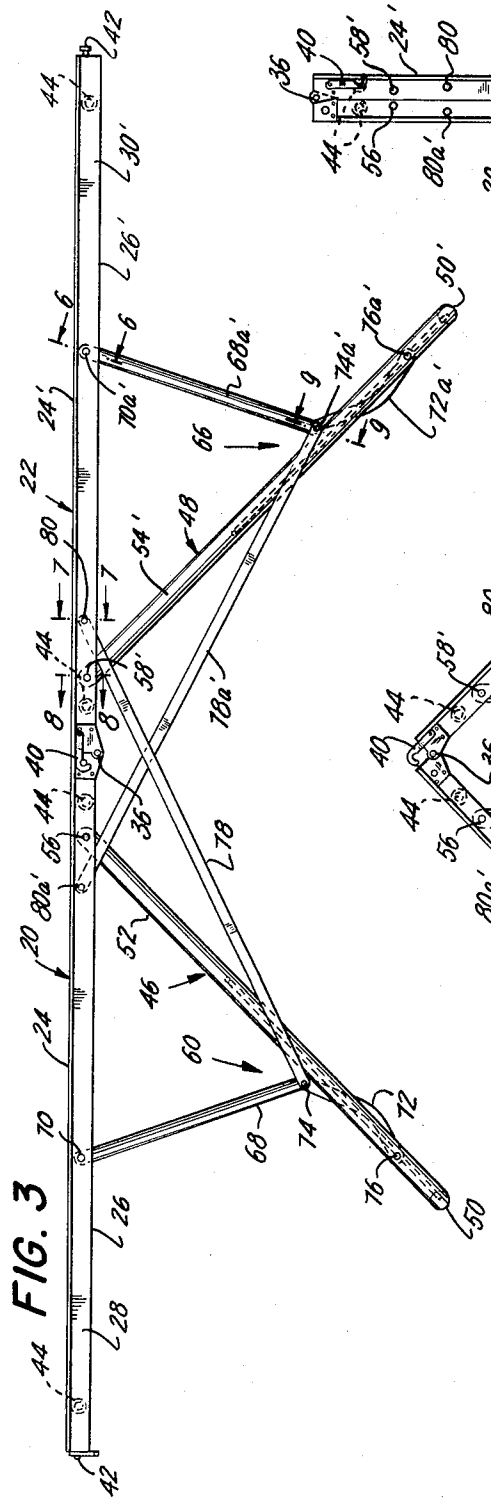


FIG. 3

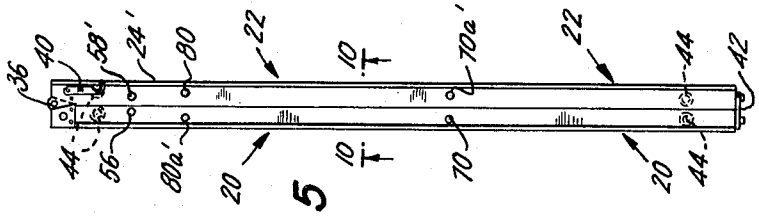


FIG. 5

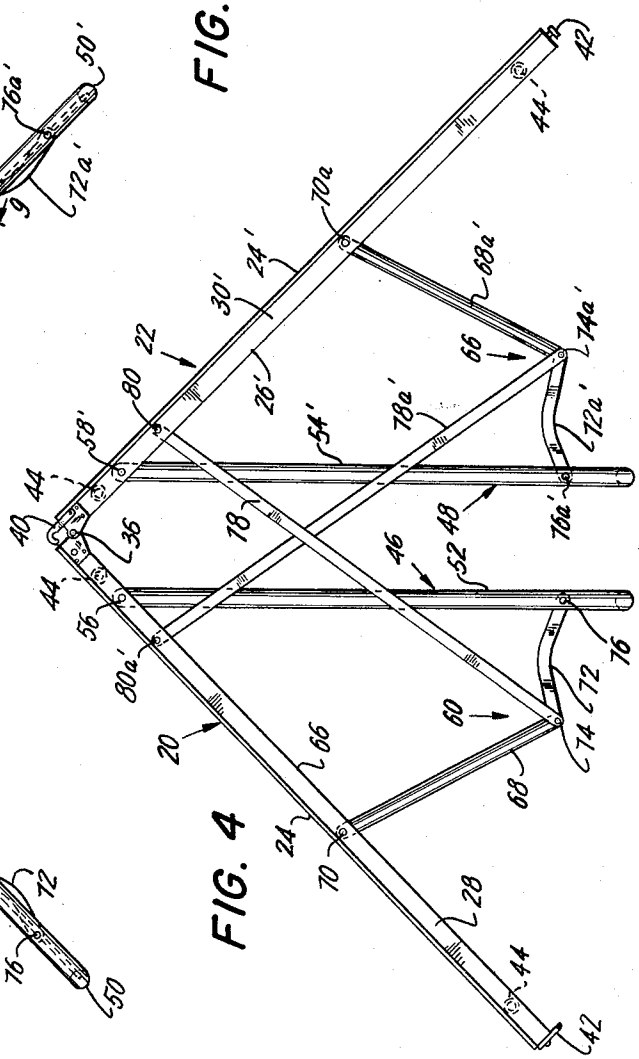


FIG. 4

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FIG. 6

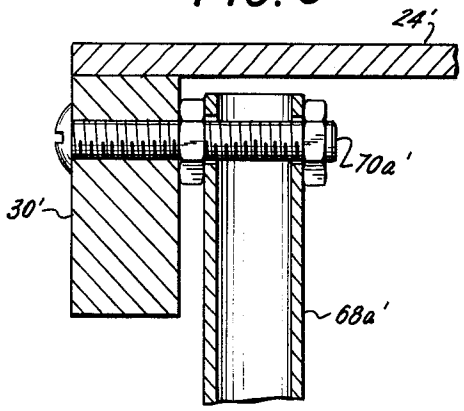


FIG. 7

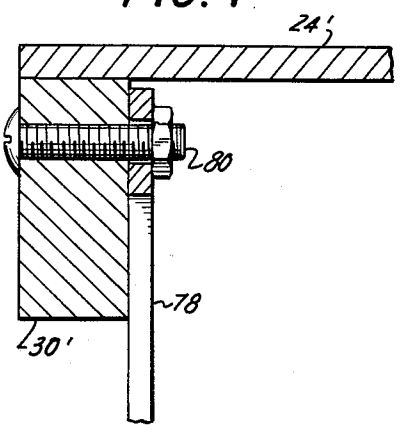


FIG. 8

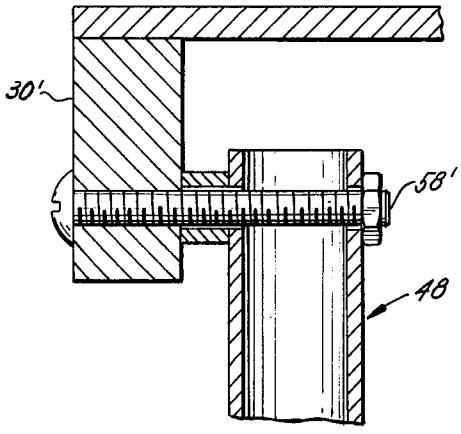


FIG. 9

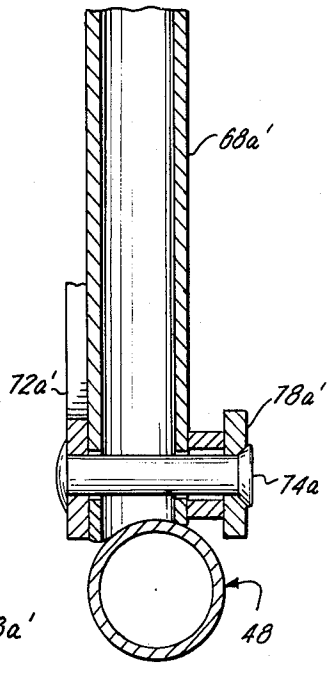
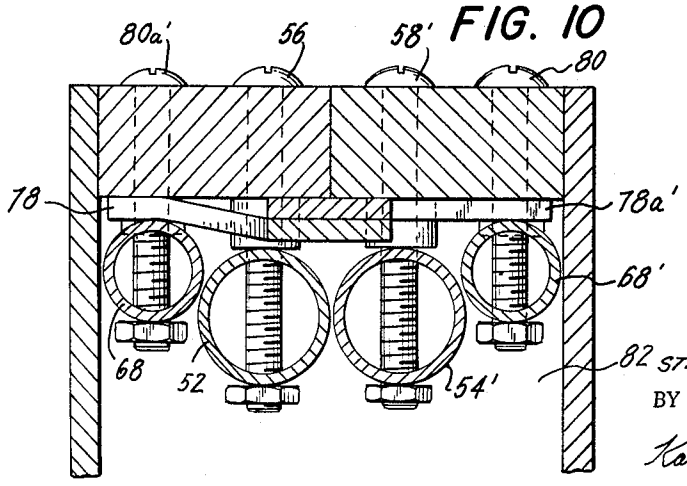


FIG. 10



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United States Patent Office 3,144,841 Patented Aug. 18, 1964

3,144,841

FOLDABLE PING-PONG TABLE

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Filed Oct. 14, 1963, Ser. No. 315,780
12 Claims. (Cl. 108—36)

This invention relates to a foldable game table and more particularly a Ping-pong table capable of being readily collapsed and folded to a rather compact state at which it may be readily transported and stored and then erected for use at substantially any stated time.

Through the years and by popular demand a need arose for efficient and practical game tables for home as well as other locations that could be readily erected for use and collapsed for storage efficiently within a short period of time without the exercise of ingenuity or an uncommon degree of skill. In this connection Pinp-pong tables that could be deployed for use and storage in game or recreation rooms of residences, for example, have become significantly important on the domestic and foreign markets.

It is, therefore, a primary object of this invention to provide an improved game table capable of being readily erected and then folded to a collapsed position in an efficient manner by substantially all participants of the game involved.

Another object is to provide a foldable game table of the type which the supporting structure including legs are readily and automatically folded to a collapsed position upon folding of the sectional pieces of the table top.

A further object is to provide a foldable game table of this type which is readily manufactured from a relatively reduced number of parts, each individually simple to manufacture and assemble at relatively low cost and at the same time a table capable of being deployed by the relatively unskilled and substantially all users and participants of the table and game respectively.

Numerous other advantages and objects will become apparent from the following detailed description of the invention which is to be taken in conjunction with the accompanying drawings illustrating a somewhat preferred embodiment thereof and in which:

FIG. 1 is a top plan view of a game table, particularly adapted for Ping-pong use with the table leaves and supporting structure in an extended erected position;

FIG. 2 is an end elevational view thereof;

FIG. 3 is a side elevational view thereof;

FIG. 4 is a similar side elevational view showing the parts in an intermediate condition between the fully extended position and collapsed position;

FIG. 5 is another similar side elevational view with the table completely folded to a collapsed position;

FIG. 6 is an enlarged fragmentary sectional view taken along the line 6—6 of FIG. 3;

FIG. 7 is an enlarged fragmentary sectional view taken along the line 7—7 of FIG. 3;

FIG. 8 is an enlarged fragmentary sectional view taken along the line 8—8 of FIG. 3;

FIG. 9 is an enlarged fragmentary sectional view taken on the line 9—9 of FIG. 3;

FIG. 10 is an enlarged fragmentary sectional view taken along the line 10—10 of FIG. 5; and

FIG. 11 is an enlarged fragmentary sectional view taken along the line 11—11 of FIG. 2.

The illustrated game table includes a table top formed from a pair of leaves 20 and 22. The leaf 20 includes a top playing surface 24 which has extending therefrom a transverse apron 26 composed of opposed apron sides 28 and 30 as well as opposed apron ends 32 and 34.

The leaf 22 is essentially the same as leaf 20 and like parts will be designated with like numbers having accompanying primes.

The leaves 20 and 22 are hingedly connected to one another by means of a pair of slide hinge means 36 and 38. Each of these hinge means includes a lock 40 which is adapted to maintain the leaves 20 and 22 in an erected or extended position as shown in FIGS. 1 to 3 at which the apron ends 34 and 34' are substantially in abutting relationship. This lock functions as a latch to releasably hold the leaves in this position and at the same time permit them to be pivoted to the fully folded or collapsed position of FIG. 5, at which a latch means 42 somewhat similar to the lock means 40 releasably maintains the folded leaves 20 and 22 in the collapsed position. While in this position the collapsed table may be readily transported and stored. In this connection a network of casters 44 appearing along at least one side of the leaves permits the collapsed structure to be readily rolled to the desired location for purposes of storage or erection for re-use.

A pair of legs 46 and 48 formed from bent tubular stock are respectively pivotally coupled wi th the leaves 20 and 22. Thus, the leg 46 is formed with a base 50 from which extends sides 52 and 54 with the terminal end of side 52 coupled with the interior of the apron side 28 by means of the pivotal connection 56 whereas the terminal end of the side 54 is coupled with the interior of the apron side 30 by means of the pivotal connection 58. The other leg 48 is of substantially similar configuration and pivotally connected with its associated leaf 22. Accordingly like numerals will be applied to like parts for this leg 48 as well as its pivotal connection with such numbers having accompanying primes.

The legs are adapted to be pivoted from their angular position as shown in FIGS. 1 to 3 to the fully folded or collapsed position of FIG. 5 with the intermediary stage represented by the illustration of FIG. 4 in a substantially automatic matter upon the folding of the table leaves 20 and 22 by means of linkage means 60, 62, 64 and 66. The linkage means serves to maintain the table in an erected and extended position while permitting its ready collapse to a completely folded position and then back to the extended position when desired. Referring specifically now to the linkage means 60, it will be noted that a first elongated member 68 in tubular form is coupled at one end to the interior of the apron side 28 by means of the pivotal connection 70. The other end of this member 68 is coupled with a second elongated member 72 of substantially flat stock by being substantially arcuate in configuration, by means of the pivotal connection 74. The other end of the arcuate member 72 is coupled with the interior of the leg side 46 by means of the pivotal connection 76. A substantially elongated member 78 again substantially flat configuration is coupled at one of its ends to the pivotal connection 74 between the members 68 and 72 with its other end extending across to the interior of the apron side 30' of the leaf 22 and pivotally connected thereto by means of the pivotal connection 80.

When the table is in its erected and extended position, the linkage means 60 will assume the disposition represented by FIGS. 1 to 3. When so disposed the arcuate member 72 will expand on both sides of the plane of the leg 46 with the pivotal connection 74 being at or resting on the associated surfaces of the leg side 52 as clearly shown in FIG. 9. In this regard the pivotal connection is taken to include all of those parts particularly the portions which are directly associated with the pivotal connection. As FIG. 9 will reveal the terminal end of the elongated member 78 bears directly on the leg side 52. However, it should be understood that any other part or member or obvious extension thereof at or near the pivotal connection 74 is contemplated for purposes of accomplishing the desired and intended locking of the leaves and legs in their respective extended and angular positions.

When the leaves 20 and 22 are deliberately pivoted

about their hinged connection **36** for purposes of collapsing or folding the table the linkage means **60** initially assume the intermediary position represented by FIG. 4 at which the pivotal connection **74** is shifted away from the leg side **52**. Upon complete folding or collapsing of parts the legs as well as linkage means are accommodated by the interior compartment **82** shown most clearly in FIG. 10.

The linkage means **62** complements linkage means **60** like parts will be similarly numbered with the accompanying letter *a*. Furthermore the linkage means **64** and **66** are substantial replicas of the respective linkage means **60** and **62** and will have their parts correspondingly numbered with accompanying primes.

In order to rigidify each of the legs a pair of bracing wires **84** and **86** extend between the leg base and sides as shown. These wires preferably have some degree of flexure to permit the linkage means to become completely housed in the compartment **82**.

A suggested method of folding the extended table, is to first unlatch the locking means **40** and then rest the table on its side preferably that which bears the casters **44**. The two legs **46** and **48** are then drawn together. As this is being done, the curved bracket member **72** also rotates about its pivotal connection **76** and when substantially disposed in line with or substantially on one side of the leg side **52**, the elongated tubular member **68** begins to shift the leaf **24** about the hinged connection **36** to close the leaves of the table. When it is not feasible to continue the drawing of the legs **46** and **48** close to one another the ends of the leaves themselves **20** and **22** may then be grasped and drawn to one another to the positon shown by FIG. 5 at which the latching means **42** may then be manipulated to latch the leaves to one another with the linkage means being substantially completely housed. The folded table may then be relocated by merely moving it on its casters **44**. In order to erect or unfold the table the order of steps need only be reversed.

Thus the numerous aforenoted objects and advantages are most effectively attained. Atlhough a single somewhat preferred embodiment of the invention has been disclosed and described in detail herein, it should be understood that this invention is in no sense limited thereby but its scope is to be determined by that of the appended claims.

I claim:

1. A folding game table comprising in combination: a top having first and second leaves hingedly connected to one another such that the leaves are pivotal between an extended position at which the leaves are substantially planar and a collapsed position at which the leaves are essentially parallel to one another; a first leg pivotally connected to the first leaf, a second leg pivotally connected to the second leaf, said legs being pivotal from an angular position at an acute angle with their respective associated leaves while the latter are in an extended position to a collapsed position at which they are disposed between the leaves while the latter are in a collapsed position; and at least one linkage means operatively associated with each leg for maintaining said leaves in their extended position and the legs in their said angular position while permitting both said leaves and said legs to be pivoted to their respective collapsed positions, at least one of said linkage means including a stop means against which the associated leg rests while in its angular position and which is adapted to be actuated to permit said leaves to be pivoted from their extended position and the legs from their angular position to their respective collapsed positions, at least one of said linkage means including a first elongated member and a second elongated member being pivotally connected to one another with the first member being pivotally connected to the first leaf and with the second member being pivotally connected with the first leg, and a third elongated member being pivotally connected with the pivotal connection of the first and second members and pivotally connected to the second of said leaves in such a manner that the said pivotal connection of the third member with the pivotal connection of the first and second member cooperates to provide said stop means.

2. The invention in accordance with claim 1 wherein locking means extend across the proximately located portions of each leaf for releasably locking the leaves in the extended position.

3. The invention in accordance with claim 1 wherein latching means extend across each of said leaves for releasably latching the leaves in their collapsed position.

4. The invention in accordance with claim 1 wherein said second member is curved and the pivotal connection of the third member with the pivotal connection of the first and second members being on one side of the plane of said first leg while the latter is in its angular position and while said first leg is in its angular position said second member having portions thereof disposed on the other side of the plane of said first leg.

5. The invention in accordance with claim 1 wherein brace means are associated with each of said legs for rigidity.

6. The invention in accordance with claim 1 wherein another of said linkage means is associated with said first leg, and a second pair of like linkage means is connected with said second leaf, said second leg and said first leaf.

7. A folding game table comprising in combination: a top having first and second leaves each having a peripherally extending apron and connected to one another such that the leaves are pivotal between an extended position at which the leaves are substantially coplanar and a collapsed position at which the leaves are essentially parallel to one another with the apron of each in substantial abutting relationship and with the leaves defining an interior enclosed compartment; a first leg pivotally connected to the interior of the apron of the first leaf near the hinged connection of the leaves, a second leg pivotally connected to the interior of the apron of the second leaf near the hinged connection of the leaves, said legs being pivotal from an angular position at an acute angle with their respective associated leaves while the latter are in an extended position to a hidden position at which they are disposed in the compartment of the leaves while the latter are in a collapsed position; and at least one linkage means operatively associated with each leg for maintaining the leaves in their extended position and the legs in their said angular position while permitting said leaves to be pivoted to their collapsed position and the legs to their hidden position; at least one of said linkage means including a first elongated member and a second elongated member pivotally connected to one another with the first member being pivotally connected to the interior of the apron of the first leaf spaced from the connection thereto of the first leg and with the second member being pivotally connected with the first leg, and a third elongated member pivotally connected with the pivotal conection of the first and second member and pivotally connected to the interior of the apron of the second leaf near the pivotal connection of the leaves in such a manner that the said pivotal connection of the third member with the pivotal connection of the first and second members cooperates to provide a stop means against which the associated leg rests while in its angular position and which is adapted to be pivoted away therefrom when the leaves are pivoted from their extended position to their collapsed position.

8. The invention in accordance with claim 7 wherein locking means extend across the proximately located portions of each leaf for releasably locking the leaves in the extended position.

9. The invention in accordance with claim 7 wherein latching means extend across each of said leaves for releasably latching the leaves in their collapsed position.

10. The invention in accordance with claim 7 wherein said second member is curved and the pivotal connection

of the third member with the pivotal connection of the first and second members being on one side of the plane of said first leg while the latter is in its angular position and while said first leg is in its angular position said second member having portions thereof disposed on the other side of the plane of said first leg.

11. The invention in accordance with claim 7 wherein brace means are associated with each of said legs for rigidity.

12. The invention in accordance with claim 7 wherein another of said linkage means is associated with said first leg, and a second pair of like linkage means is connected with said second leaf, said second leg and said first leaf.

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