Sept. 4, 1928. 1,682,754

H. L. HASKELL

FOLDING TABLE

Original Filed Sept. 18, 1923 3 Sheets-Sheet 1

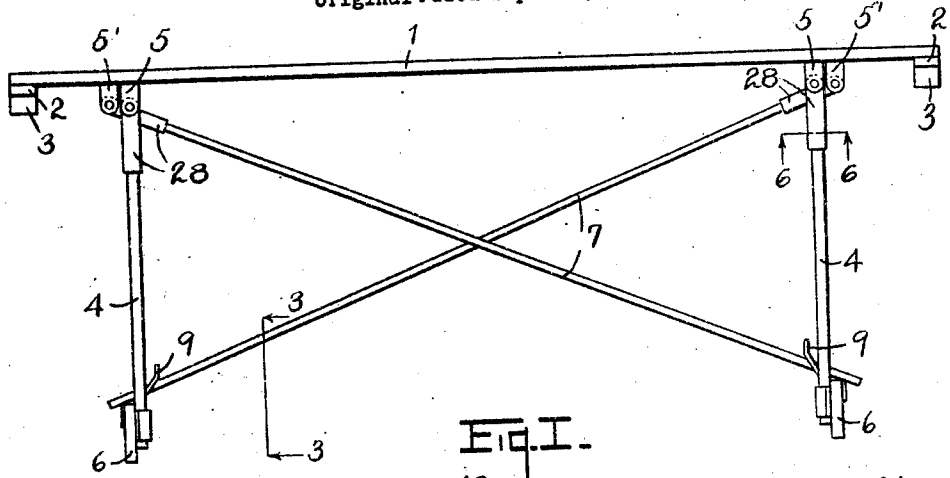

Fig. I.

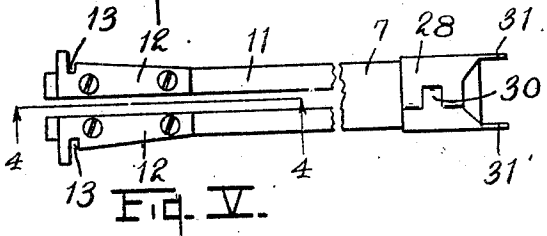

Fig. V.

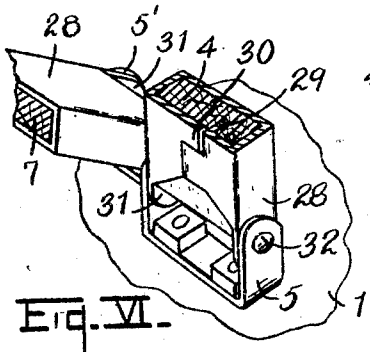

Fig. VI.

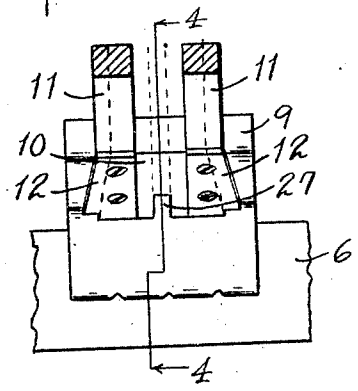

Fig. III.

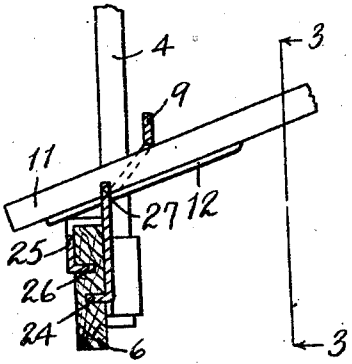

Fig. IV.

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FOLDING TABLE

Original Filed Sept. 18, 1923 3 Sheets-Sheet 2

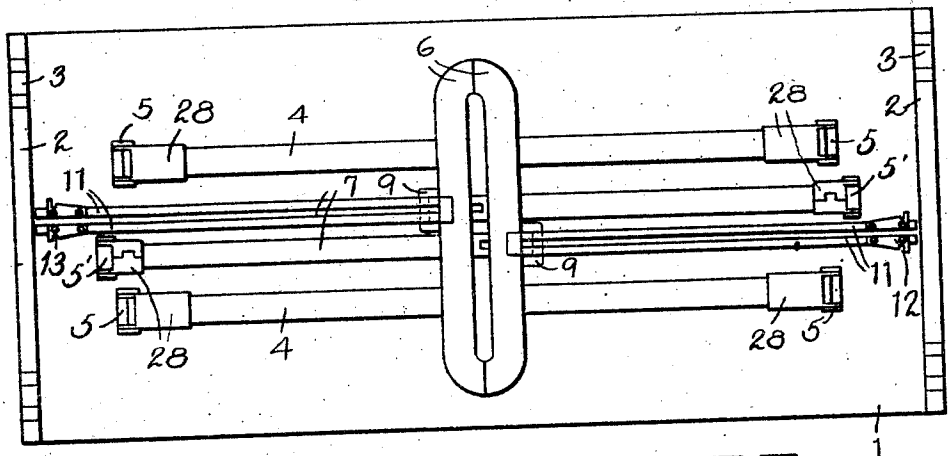

Fig. II.

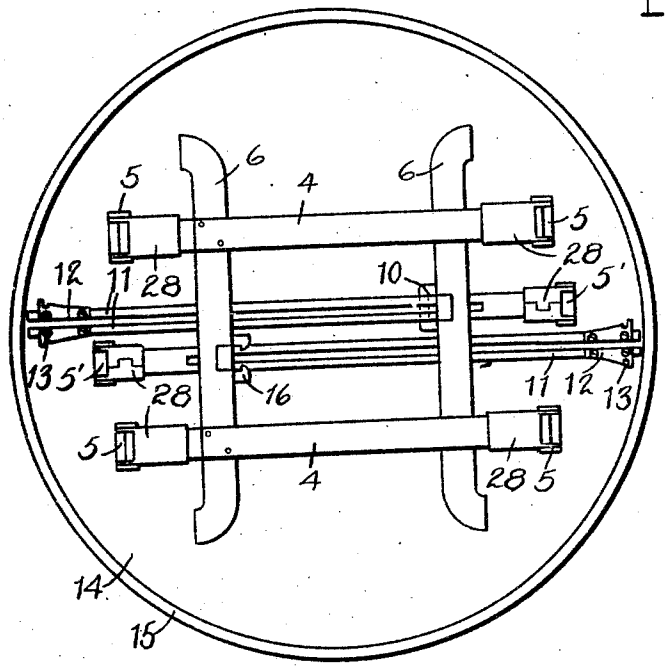

Fig. VII.

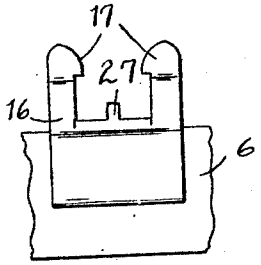

Fig. VIII.

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FOLDING TABLE

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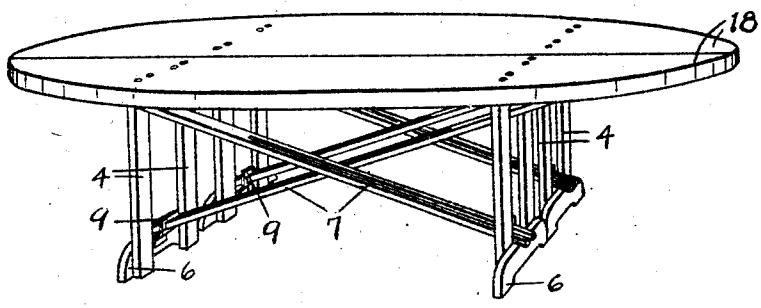

Fig. IX.

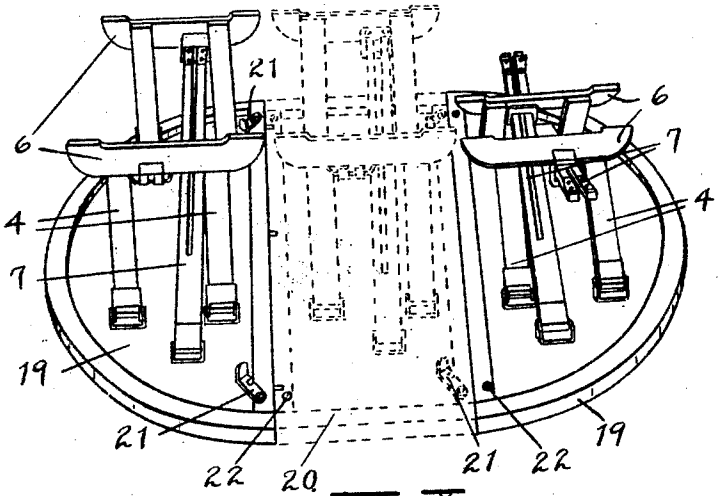

Fig. X.

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Patented Sept. 4, 1928. 1,682,754

UNITED STATES PATENT OFFICE.

HENRY L. HASKELL, OF LUDINGTON, MICHIGAN, ASSIGNOR TO THE CARROM COMPANY, OF LUDINGTON, MICHIGAN.

FOLDING TABLE.

Application filed September 18, 1923, Serial No. 663,446. Renewed June 9, 1928.

This invention relates to improvements in folding tables.

The main objects of this invention are to provide an improved folding table suitable to be used as a banquet table or a table of considerable size which collapses compactly, and when erected is very strong and rigid.

A further object is to provide an improved table having these advantages which is very easily manipulated to erect or collapse the same and in which the parts are simple and economical in structure and assembling.

Objects pertaining to details and economies of my improved table will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification. The invention is clearly defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is clearly illustrated in the accompanying drawing forming a part of this application, in which:

Fig. I is a side elevation of my improved table in erected position.

Fig. II is an inverted plan view of the table collapsed.

Fig. III is a detail section on a line corresponding to line 3—3 of Figs. I and IV.

Fig. IV is a detail section on a line corresponding to line 4—4 of Fig. V.

Fig. V is a fragmentary inverted plan view of one of the braces.

Fig. VI is a detail perspective partially in section on a line corresponding to line 6—6 of Fig. I.

Fig. VII is an inverted view of a modified form of my invention in which my improvements are adapted to or embodied in a round table.

Fig. VIII is a fragmentary elevation of one of the brace keepers employed in the embodiment of Fig. VII.

Fig. IX is a perspective view of a modified form of table in which the top is made up of sections.

Fig. X is an inverted perspective view of another modification in which the top is made up of sections, the two sections being indicated by full lines, the third intermediate section being shown by dotted lines.

In the drawing the sectional views are taken looking in the direction of the little arrows at the ends of the section lines and similar numerals of reference indicate similar parts throughout the several views.

Referring to the drawing, the table top 1 is of suitable dimensions and in the embodiment shown in Figs. I to VI inclusive is rectangular, being designed for a banquet table, the intention being that as many of the tables may be placed end to end as desired.

The top is provided with end cleats 2 having projections 3 thereon of such width that when the table is collapsed they may be stacked one upon another, these parts 3 serving as supports. The legs 4 are arranged in pairs, being pivoted to the U-shaped hinge members 5 on the under side of the top.

Each pair of legs is provided with a base cross member 6 which is of sufficient length to form a relatively wide base for the table. Braces 7 are pivoted to the U-shaped hinge members 5, these braces being of such length as to coact with the cross members 6 thereby bracing the legs from their lower ends and providing a very rigid structure when erected.

The braces are slidably engaged with the keepers 9 which are mounted on the cross members 6 of the legs to project upwardly therefrom and are provided with holes 10 to receive the braces, the keepers being inwardly offset as shown in Fig. III permitting the folding of the legs upon the braces. The braces are longitudinally slotted at their outer ends providing spring members 11. The tapered blade-like catch members 12 are mounted on these spring members with their outer edges projecting therefrom and notched at 13 to engage with the keepers so that the legs are automatically locked in erected position. The catches automatically engage when the legs are swung to erected position and may be quickly released by pressing the spring members together.

The keepers 9 are formed as sheet metal stampings and have prongs 24 at their lower edges which are driven or pressed into the base members 6. The parts struck out to form the opening 10 are conformed to engage over the upper edges of the base members 6 providing attaching members 25 having attaching prongs 26 on their edges (see Fig. IV). This forms a means of attaching the keepers which is not likely to work loose in use as might be the case with screws, bolts or rivets and an attaching means which does

not weaken the base members as would result from forming holes therein.

To facilitate the disengagement of the catch members from the keepers, the keepers are provided with central stops 27 so that when the spring members 11 of the legs are grasped, as between the thumb and forefinger, each spring member will swing against the stop and the parts are completely disengaged. Where the stops are not present, the operator must exercise some care not to exert the pressure so that one catch member still remains in engagement with the keeper.

As a convenient and very effective means of attaching the braces and the legs to the table top, I provide hinge members 28 formed of sheet metal which are folded around the legs and braces and terminate at their edges in inturned brads 29, the edges 30 being notched to interlap, as shown in Fig. VI, so that the brads are brought out of alignment. These hinge members 28 have pivot ear extensions 31 projecting between the U-shaped hinge members 5 and secured thereto by the pivots 32. This provides a very effective means for securing the hinge members to the legs and connecting the same to the top, the parts being simple and economical and at the same time the strain on the connected parts is minimized.

The parts are economical to produce and easily assembled, and, when assembled, result in a very rigid structure.

In the embodiment shown in Fig. VII, I show my improvements adapted to a round table top 14 having a peripheral rim 15. The legs are pivoted to the under side of the top as in the embodiment previously described with the exception that they are pivoted so that they overlap when collapsed instead of lying with their bases 6 adjacent. The braces 7 are hinged to the top and collapsed under the legs, the braces being the same as previously described. However, to permit the folding of the legs one upon another I substitute a keeper 16 for one of the keepers 9, the keeper 16 having an opening 17 at its inner end adapted to permit the catches being introduced laterally or through this opening. The brace does not have sliding engagement with this keeper but is engaged therewith by pressing downwardly on the brace after the leg has been swung to erected position. This permits of the folding of the legs one upon the other.

In the modification shown in Fig. IX, the top is elliptical, being made up of two sections 18. The legs and braces are the same as in the structure shown in Figs. I to V.

In the modification shown in Fig. X, the top is made up of a pair of sections 19, an intermediate section 20 being provided which may be used or omitted as occasion may require, the sections being connected by the coupling members 21 adapted to be engaged with the studs 22 on the adjoining sections. These legs and braces are the same as have been described.

By forming the table top of sections, as shown in Figs. IX and X, the sections may be assembled to produce a table of the desired form.

I have not attempted to illustrate or describe other modifications and adaptations which I contemplate as I believe the disclosure made will enable those skilled in the art to which my invention relates to embody or adapt the same as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a folding table, the combination with a top having cross cleats secured on its under side at the ends thereof, legs pivotally mounted on the under side of said top in coacting pairs to fold within the plane of the lower edges of said cleats and provided with base members, said legs being mounted so that their said base members lie with their bottoms adjacent when the legs are collapsed, braces pivotally mounted on the under side of said table, keepers mounted on said base members to project inwardly from the upper edges thereof and having openings therein to slidably receive said braces, said keepers being provided with stops disposed centrally of said openings thereof, the outer ends of the braces being longitudinally slotted providing spring members, and tapered catch members mounted on said spring members and notched to engage said keepers under tension of said spring members when the legs are in erected position.

2. In a folding table, the combination with a top having cross cleats secured on its under side at the ends thereof, legs pivotally mounted on the under side of said top in coacting pairs to fold within the plane of the lower edges of said cleats and provided with base members, said legs being mounted so that their said base members lie with their bottoms adjacent when the legs are collapsed, braces pivotally mounted on the under side of said top, and keepers mounted on said base members to project inwardly from the upper edges thereof and having openings therein to slidably receive said braces, said keepers being inwardly offset relative to said base members to permit the folding of the legs upon the braces, said braces being provided with catch members adapted to engage said keepers when the legs are in erected position.

3. In a folding table, the combination with a top, legs pivotally mounted on said top in coacting pairs and provided with cross members, braces pivoted on the under side of said top, and keepers mounted on said cross mem-

bers to project inwardly from the upper edges thereof and having openings therein to slidably receive said braces, said keepers being inwardly offset to permit the folding of the legs upon the braces, said braces being provided with catch members adapted to engage said keepers when the legs are in erected position.

4. In a folding table, the combination with a top member, legs pivotally mounted on said top member and provided with cross members, braces pivotally mounted on said top member, keepers mounted on said leg cross members and having openings therein to slidably receive said braces, the outer ends of the braces being longitudinally slotted providing spring members, and tapered catch members mounted on said spring members and notched to engage said keepers under tension of said spring members when the legs are in erected position, said keepers being provided with stops limiting the disengaging movement of said spring members.

5. In a folding table, the combination with a top member, legs pivotally mounted on said top member and provided with cross members, braces pivotally mounted on said top member, keepers mounted on said leg cross members and having openings therein to slidably receive said braces, the outer ends of the braces being longitudinally slotted providing spring members, and tapered catch members mounted on said spring members and notched to engage said keepers under tension of said spring members when the legs are in erected position.

6. In a folding table, the combination with a top member, legs pivotally mounted on said top member and provided with keepers, braces pivotally mounted on said top member and slidably engaged with said keepers, the outer ends of said braces being longitudinally slotted providing spring members, and catch members mounted on said spring members and notched to engage said keepers under the tension of said spring members when the legs are in erected position.

7. In a folding table, the combination with a top member, legs pivotally mounted on said top member in coacting pairs, base members mounted on said pairs of legs, braces pivotally mounted on said top member, the outer ends of said braces being longitudinally slotted providing spring members, and keepers mounted on said bases, said spring members being provided with notched catches adapted to engage with said keepers when the legs are in erected position.

8. In a folding table, the combination with a top member, legs pivotally mounted on said top member, braces pivotally mounted on said top member, the outer ends of said braces being longitudinally slotted providing spring members, and keepers on said legs, said spring members being provided with catches adapted to engage said keepers when the legs are in erected position.

9. In a folding table, the combination with a top member, legs pivotally mounted on said top member to collapse thereon, braces pivotally mounted on said top member, keepers mounted on said legs and having openings therein to slidably receive said braces, the outer ends of said braces being longitudinally slotted providing spring members, catch members mounted on said spring members to engage said keepers under tension of said spring members when the legs are in erected position, and stops disposed on said keepers to project into said slots for limiting the inward lateral movement of said spring members facilitating the disengagement of the catches.

10. In a folding table, the combination with a top member, legs pivotally mounted on said top member to collapse thereon, braces pivotally mounted on said top member, keepers mounted on said legs to receive said braces, the outer ends of said braces being longitudinally lotted providing spring members, catch members mounted on said spring members to engage said keepers under tension of said spring members when the legs are in erected position, and stops disposed on said keepers to project into said slots for limiting the inward lateral movement of said spring members facilitating the disengagement of the catches.

11. In a folding table, the combination with a top member, legs pivotally mounted on said top member to collapse thereon, braces pivotally mounted on said top member, keepers mounted on said legs, said braces being provided with spring catch members engaging said keepers under tension of said spring members when the legs are in erected position, and stops disposed on said keepers to limit the lateral movement of said spring members facilitating the disengaging of the catches.

12. In a folding table, the combination with a top member, pairs of legs pivotally mounted on said top member to collapse upon the underside thereof, cross members at the lower ends of said legs, braces pivotally mounted on said top member to collapse between the pairs of legs against the underside of the top member, and keepers mounted on said cross members to coact with said braces, said braces having sliding engagement with said keepers and being provided with catch members adapted to automatically engage said keepers when the legs are in erected position.

In witness whereof, I have hereunto set my hand.

HENRY L. HASKELL.