July 7, 1931. N. N. BROWN 1,813,018

COLLAPSIBLE TABLE

Original Filed July 28, 1924 2 Sheets-Sheet 1

Fig. 1.

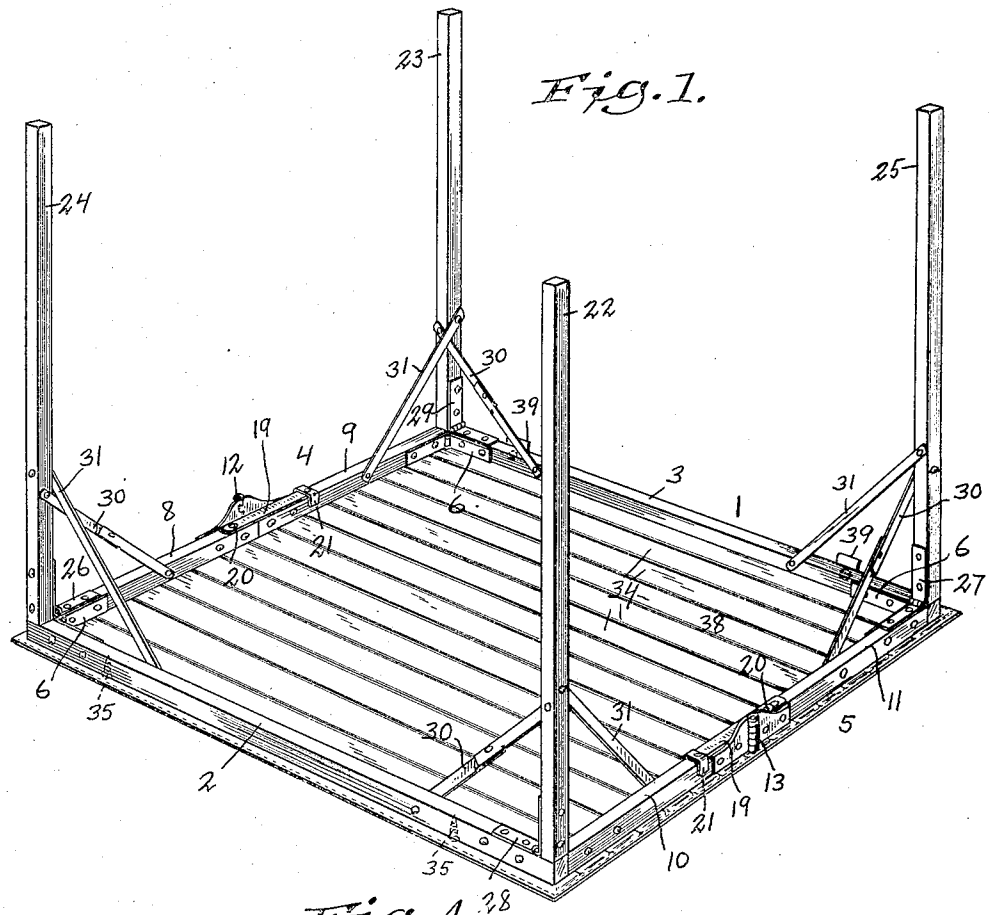


Fig. 4.

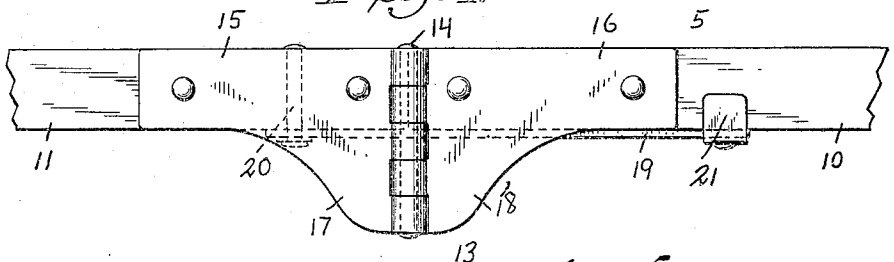
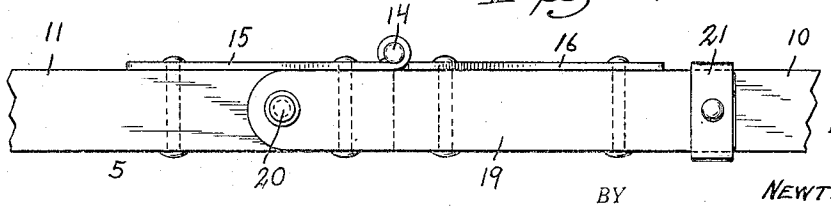


Fig. 5.



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COLLAPSIBLE TABLE

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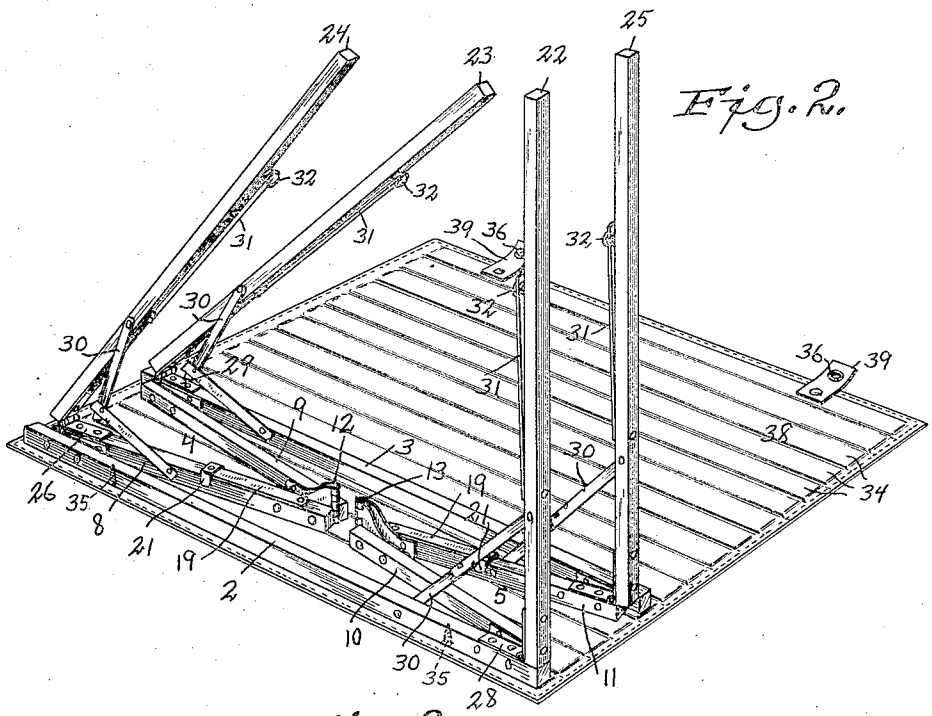
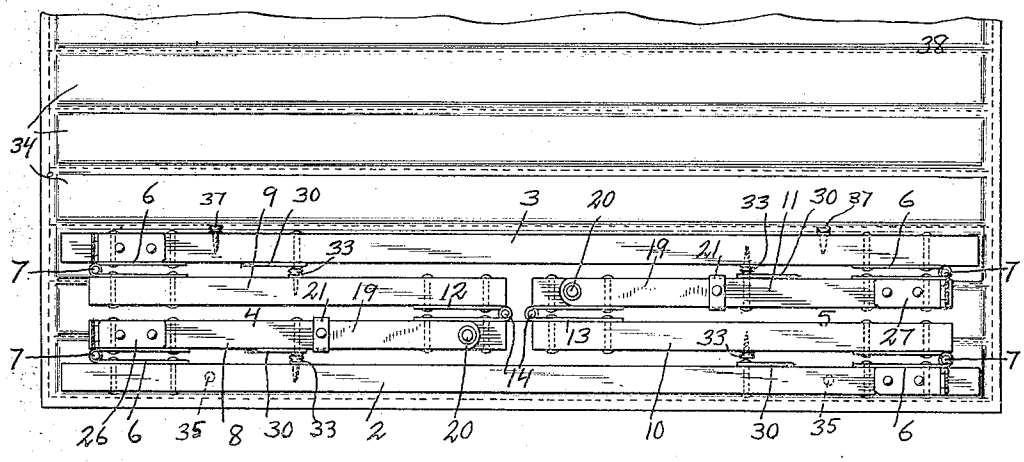


Fig. 2.

Fig. 3.



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1,813,018

UNITED STATES PATENT OFFICE

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COLLAPSIBLE TABLE

Application filed July 28, 1924, Serial No. 728,546. Renewed June 28, 1929.

This invention relates to folding tables and the object of the invention is to improve the construction and operation of folding tables in the manner to be hereinafter described and claimed.

Referring to the drawings which accompany this specification and form a part hereof, which drawings illustrate an embodiment of this invention, and on which drawings the same reference characters are used to designate the same parts wherever they may appear in each of the several views, Fig. 1 is a perspective view of the table in its unfolded position and ready to be inverted for use; Fig. 2 is a perspective view of the under side of the table with parts shown in positions which they may occupy while the table is either being folded or unfolded; Fig. 3 is a plan view of parts of the table in their folded positions, the legs being omitted and parts being shown in section and parts being broken away; Fig. 4 is an elevation of parts of an end member; and Fig. 5 is a bottom plan view of the parts shown by Fig. 4.

Referring to the drawings, the reference numeral 1 designates, generally, the frame of the table composed of side members 2 and 3 and end members 4 and 5. The side members and the end members are disposed in the same general plane or planes and are hinged together by inside hinges 6 which are provided with vertical hinge pins 7. The hinges 6 are flush with the ends of the end members 4 and 5 but are set in from the ends of the side members 2 and 3 by distances equal to the thickness of the end members 4 and 5 so that the ends of the end members can abut against the inside faces of the side members 2 and 3 to limit the opening movements of the parts of the end members. Each end member is composed of two parts, and these parts are designated by the reference numerals 8, 9, 10 and 11 for convenience of identification, which are hinged together by hinges 12 and 13, respectively. The hinges 12 and 13 are of the same general construction and their hinge pins 14 are intended to stand substantially vertically when the table is in use. The hinge pins 14 are of greater length than the vertical thickness of the end members 4 and 5 but are not of greater length than the combined thickness of the end members and the legs when the parts are folded together. The length of the hinge pins 14 permits the wing plates 15 and 16 of the hinges 12 and 13 to be provided with bracing extensions 17 and 18 to strengthen the joints where these hinges are used. Latches 19, made from flat spring steel as illustrated by the drawings, are pivoted by pivots 20 to one part of an end member and are provided with clips 21 which embrace the other part of an end member to lock the two parts in alignment.

All four legs 22, 23, 24 and 25 and the side members 2 and 3 are preferably made of such a length that, while the legs are long enough for a table, the lengths of the legs will not exceed the length of a side member. The length of the end members 4 and 5 should not exceed the length of the side members 2 and 3 and may be as much less as desired, although the drawings show a substantially square frame for the table. Leg 22 is hinged to the side member 2 near one end thereof so as to abut against the side member 2 when opened or unfolded and so that it can be folded against the side member 2. Leg 23 is hinged in the same manner to the side member 3 but at the opposite end thereof. Leg 24 is hinged to the part 8 of the end member 4 and the hinge 26 is set flush with both the end of the part 8 and with the end of the leg 24 so that the end of the leg abuts against the underside of the side member 2. In like manner the leg 25 is hinged to the part 11 of the end member 5 and the hinge 27 is set flush with both the end of the part 11 and with the end of the leg 25 so that the end of the leg 25 abuts against the underside of the side member 3. The hinges for the legs 22 and 23 are respectively designated by the reference numerals 28 and 29. Each leg is braced in two directions at right angles to each other as follows. A rule-jointed brace 30 is pivotally connected at one end with a leg and at its other end to the side member or the part of an end member to which that particular

leg is hinged. The rule-joints in these braces can be broken towards their respective hinges only, as clearly shown by Fig. 2 of the drawings. The other braces are designated by the reference numeral 31 and are illustrated by the drawings as each pivoted at one end to a leg and provided at its other end with a snap to engage over a button secured to a member or a part of a member composing the frame 1. The snaps are designated by the reference numeral 32 and the buttons by the reference numeral 33.

A folding cover composed of separated stiff slats sewed into pockets 34 formed from upper and lower flexible pieces of material is preferably permanently secured to the side member 2 by screws 35, for example, and is provided with snaps 36 which can be engaged with buttons 37 secured to the side member 3. The cover is designated, generally, by the reference numeral 38. Tabs 39 are secured to the cover 38 and the tabs 39 are provided with the snaps 36 hereinbefore referred to.

To fold the table, it is turned over, with the top, or cover, down as shown by Fig. 1 of the drawings. The braces 31 are disengaged from their buttons, the latches 19 are sprung up to free the clips 21 from the parts 9 and 10 of the end members and are then swung around on their pivots 20 and the clips 21 engaged with the parts 8 and 11 of the end members. The snaps 36 are disengaged from the buttons 37, and the hinges 12 and 13 are then pressed inwardly towards each other with the result that the side member 3 may be moved toward the side member 2, as shown in Fig. 2 and the frame completely collapsed, as shown in Fig. 3. The legs of the table may now be folded down upon the collapsed frame and the whole structure rolled up in the flexible top as will be readily understood. To permit of the loose end of the table top being fastened after the structure has been rolled up as just described, fastening members similar to those bearing reference character 37 secured to the frame member 3 may be employed, said members for such purpose being properly positioned on the outer surface of the table top where they may be readily engaged by the snaps 36 after the structure has ben rolled.

It will be obvious to those skilled in the art that the present improvements are susceptible to various changes and modifications and it is not desired, therefore, to limit or restrict the same to the particular construction or arrangement of parts herein illustrated and described, except where limitations appear in the appended claims.

The invention claimed is:

1. A collapsible table comprising side and end frame members hinged together, two of said members comprising hinged sections whereby the same may be folded inwardly between said other frame members and the latter moved together against the former, a leg hingedly associated with each side frame member in such wise as to be foldable flatly down against the underface of the same, a leg hingedly associated with each end member in such wise as to be folded flatly down against the underface of the same, and a flexible member adapted to form a top for said table when in use and an inclosing cover therefor when collapsed.

2. A collapsible table comprising side and end frame members hinged together, two of said members comprising hinged sections whereby the same may be folded inwardly between said other frame members and the latter moved together against the former, legs hingedly associated with said side frame members at diagonally opposite corners of the frame and legs hingedly associated with the end frame members at other diagonally opposite corners of the frame whereby the legs may be folded down on the frame members without overlapping.

3. In a collapsible table of the character described, the combination with a four-sided collapsible frame, the opposite sides of which comprise sections having their adjacent ends hinged together, of a latch associated with one of said sides and pivotally connected at one of its ends to one of the sections comprising said side, the other end of said latch being provided with a clip adapted to embrace one edge of the other of said sections to lock the latter in alignment, said latch being resilient to permit the clip end thereof to be sprung out of operative relation with said other section to permit collapsing of said frame.

4. A collapsible table comprising a removable top, side and end frame members hinged together in such wise that the same may be compactly folded together, legs pivoted to the side frame members and adapted to abut the ends of the side frame members when extended and to be folded thereagainst when collapsed, and legs pivoted to extremities of the end frame members and adapted to be folded flatly against the end frame members when collapsed and to abut the ends of the side frame members when extended.

5. A collapsible table comprising a top supporting frame composed of double section end members and single section side members hinged to said end members, the sections of each end member being hinged for inward folding movement in the plane of said folding frame, a flexible top permanently secured along one edge to one of said side members, a tab carried by the opposite edge portion of said top and coacting fastening means between said tab and the adjacent side frame member.

6. In a collapsible table of the character described, a collapsible top frame made up of a plurality of pieces, means for holding said pieces together against movement except in a single plane and means for latching said pieces against movement in said single plane and comprising a leaf spring and a laterally projecting U-shaped clip on one end of said spring and means co-acting with the other end of said spring to secure it to one of said frame pieces with the clip urged into latching engagement under the influence of the resiliency of the spring, said connecting means between the spring and one of the pieces providing for movement of the spring and clip to inoperative position when the spring is flexed to disengage the clip from latching position.

7. In a collapsible table of the character described, a collapsible top frame made up of a plurality of pieces, means for holding said pieces together against movement except in a single plane and means for latching said pieces against movement in said single plane and comprising a leaf spring and a lateral projection on one end of said spring and means co-acting with the other end of said spring to secure it to one of said frame pieces with the lateral projection urged into latching engagement under the influence of the resiliency of the spring, said connecting means between the spring and one of the pieces providing for movement of the spring and lateral projection to inoperative position when the spring is flexed to disengage the lateral projection from latching position.

In witness whereof I hereto affix my signature.

NEWTON N. BROWN.