

May 17, 1932.

J. J. WILKINSON ET AL

1,859,121

AUTOMATIC FOLDING TABLE

Filed Dec. 8, 1930

2 Sheets-Sheet 1

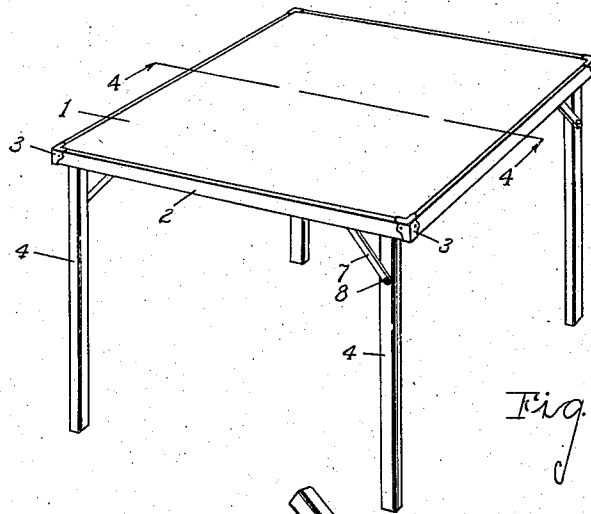


Fig. 1

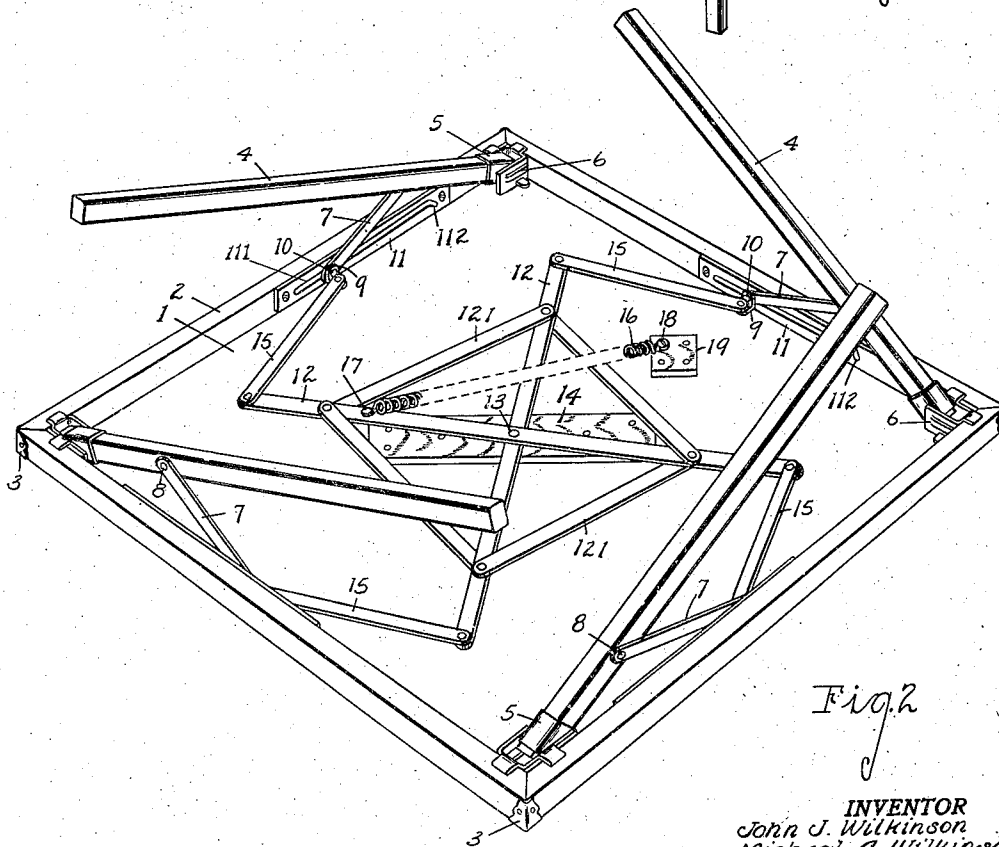


Fig. 2

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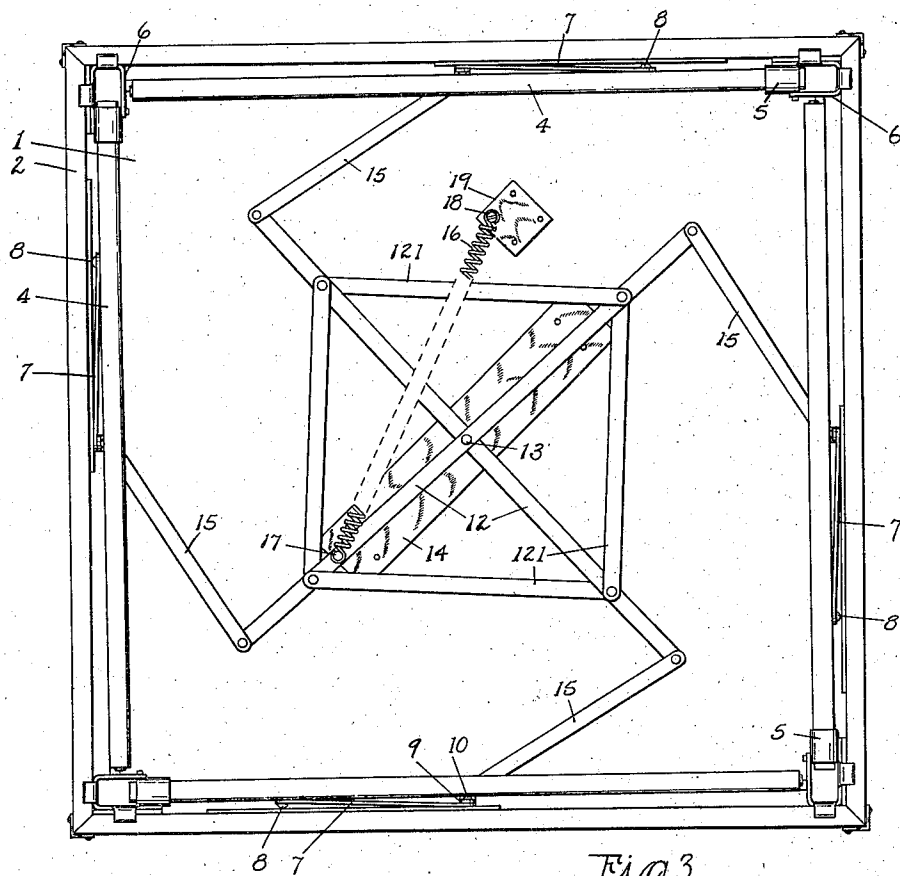


Fig. 3

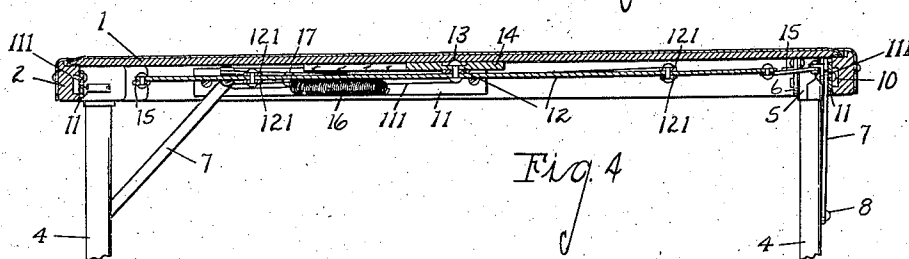


Fig. 4

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UNITED STATES PATENT OFFICE

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AUTOMATIC FOLDING TABLE

Application filed December 8, 1930. Serial No. 500,731.

The objects of the invention are:

First, to provide a card table in which the legs will automatically drop into position and lock.

Second, to provide in such a structure an improved actuating spring means to assist in the operation.

Third, to provide in a card table an improved locking means for the folding legs.

Fourth, to provide in such a structure a connection between the legs whereby they are manipulated in unison, both in extending and releasing and folding.

Fifth, to provide in such a structure an improved spring actuating lock means for retaining the legs in position while the table is in use.

Sixth, to provide equalizing means for such a table which prevents an uneven collapse of the same.

Objects pertaining to details and economies of construction and operation will appear from the description to follow.

A structure which is a preferred embodiment of our invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of the table in use.

Fig. 2 is an inverted perspective view with the legs partially collapsed, showing the movement of the parts and the equalized action of the legs.

Fig. 3 is an enlarged inverted plan view with the table completely folded and collapsed.

Fig. 4 is a sectional view on line 4—4 of Fig. 1.

The parts will be identified by their numerals of reference which are the same in all the views.

1 is the table top. 2 is the square supporting frame therefor with the side rails joined together by suitable corner irons 3. 4 are the legs provided with pivoted brackets 5 which swing into socket brackets 6 secured in each corner of the frame underneath the table top. This corner construction is like that appearing in Patent #1,652,267, issued December 13, 1927, to John W. Beiger.

Each leg is provided with a pivoted brace

7 which is pivoted to the leg at 8 towards the top. The upper end of the pivoted brace is provided with a pivoted slide 9 carrying headed pin 10, see Figs. 2 and 4, which engages the slotted plate 11 having slot 111 with upwardly deflected end catch portion 112, as seen particularly in Fig. 2.

A pair of cross arms 12 are carried on pivot 13 on block 14 on the underside of the table top 1. These cross arms are connected by braces 121 and the outer end of each arm 12 is connected by link 15 to the said slide bracket 9 so that whenever the cross arms are rocked back and forth they, by their connections through the links 15, control the movements of all the table legs 4.

A spring 16 is connected at 17 to the pivot 18 on block 19 on the underside of the table top and is so connected and disposed as to throw the arms 12 outwardly to swing the table legs downwardly into supporting position and to carry the headed pin 10 into the deflected catch part 112 of the slot 111, thereby retaining the said legs in locked position where it will be impossible to fold the same by pressure upon the leg itself. The deflected end 112 of the slot is at such an angle that pressure on the leg forces the pin 10 to the end of the slot.

On the other hand, when the link 7 is deflected and disengages, the headed pin 10 is withdrawn from the deflected end of the slot 112, the legs swing together in unison, and all collapse within the bottom of the table where they are retained by the friction of the parts, the spring 16 swinging so close to the dead center as merely to serve to take up the slack.

When the table is folded, the person carrying the same must necessarily grasp one of the legs on the side of the table which prevents any accidental unfolding of the same. When it is desired to unfold the table, the top is turned right side up and the legs drop down and snap into position, when the headed pin enters the deflected portion 112 of the slot 111 and locks the same with a snap, so that no attention need be given either to the locking or unlocking of the table. The table remains staunch on its legs while in use until

one or another of the connecting cross arms is pulled to one side, or one of the braces is deflected, which, owing to the deflected portion 112 of the slot 111, causes the pins 5 very readily to slide out of engagement up into the slot 111 and slide to folded position.

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

10 1. The combination in a table of a top, surrounding side rails therefor, legs pivoted in the corners and adapted to collapse into the underside of the said table, connected cross arms disposed underneath the top of
15 said table and pivoted at the center thereof with suitable braces therebetween, a pivoted brace for each table leg pivoted toward the top thereof, a pivoted bracket carrying a headed pin at the upper end of each of said
20 braces, a slotted plate on each side rail with a longitudinal slot having an upwardly deflected catch portion at the outer end for the reception of the said headed pin, a link connecting the brackets at the upper end of each
25 brace to the outer end of the corresponding cross arm, whereby the actuation of one table leg insures the simultaneous operation of the others, and an actuating spring secured at one end to the said cross arms and at the other
30 end to a projection on the table top and disposed to swing the said cross arms to actuate the legs and force them to the upright position and to retain each headed pin within the deflected catch portion of its slot.

25 2. In a folding card table, the combination of a top having supporting side rails, folding legs pivoted at each corner thereof and adapted to fold beneath the same, a pivoted brace for each leg, a slideway on each side rail, a
40 slide bracket pivoted at the upper end of said brace having a pin engaging said slideway, a catch at the outer end of said slideway for engaging said pin, pivoted cross arms underneath the said table having links connecting
45 each to the corresponding slide and brace, and a spring secured to the underside of the said table and connected to said cross arms to swing the same to throw the legs outwardly and retain the same in upright position.
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3. In a folding card table, the combination of a top having supporting side rails, folding legs pivoted at each corner thereof and adapted to fold beneath the same, a pivoted
55 brace for each leg, a slideway on each side rail, a slide bracket pivoted at the upper end of said brace having a pin engaging said slideway, a catch at the outer end of said slideway for engaging said pin, and pivoted
60 cross arms underneath the said table having links connecting each to the corresponding slide and brace.

4. In a folding card table, the combination of the top, a folding leg, a pivoted brace for
65 said leg, a slotted slideway at the side of said

table having a deflected catch portion at the outer end of said slot, a slide having an engaging pin for traversing said slideway pivotally connected to the upper end of said brace, and spring means connected to force
70 the slide to the outer end of the slot to maintain the leg in locked position.

5. In a folding card table, the combination of the top, a folding leg, a pivoted brace for said leg, a slotted slideway at the side of said
75 table having a deflected catch portion at the outer end of said slot, and a slide having an engaging pin for traversing said slideway pivotally connected to the upper end of said brace.
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6. In a folding card table, the combination of a top, folding legs, one pivoted at each corner, pivoted braces therefor, pivoted cross
85 arms beneath the table top, link connections from said cross arms to the said pivoted braces, whereby the manipulation of the cross arms simultaneously operates all of the said table legs, catch means for locking said braces
90 to hold the legs upright, a spring connection to the said cross arms for actuating the same to swing the legs to upright position and retain them there, and suitable catches for the said braces.

7. In a folding card table, the combination of a top, folding legs, one pivoted at each
95 corner, pivoted braces therefor, pivoted cross arms beneath the table top, link connection from said cross arms to the said pivoted braces, whereby the manipulation of the cross arms simultaneously operates all of the said
100 table legs, a spring connection to the said cross arms for actuating the same to swing the legs to upright position and retain them there, and suitable catches for the said braces.

8. In a folding card table, the combination of a top, folding legs, one pivoted at each
105 corner, pivoted braces therefor, pivoted cross arms beneath the table top, link connections from said cross arms to the said pivoted braces, whereby the manipulation of the cross arms simultaneously operates all of the said
110 table legs, catch means for locking said braces to hold the legs upright, and suitable catches for the said braces.

In witness whereof we have hereunto set
115 our hands.

JOHN J. WILKINSON.
MICHAEL A. WILKINSON.

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