April 26, 1932. F. B. HARMAN 1,855,857

FOLDING LEG FOR TABLES AND THE LIKE

Filed March 19, 1928

Fig. 1

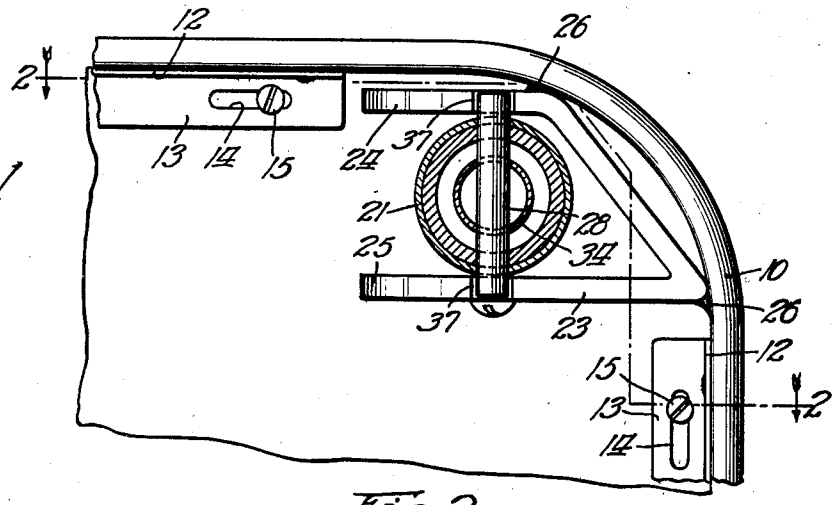


Fig. 3

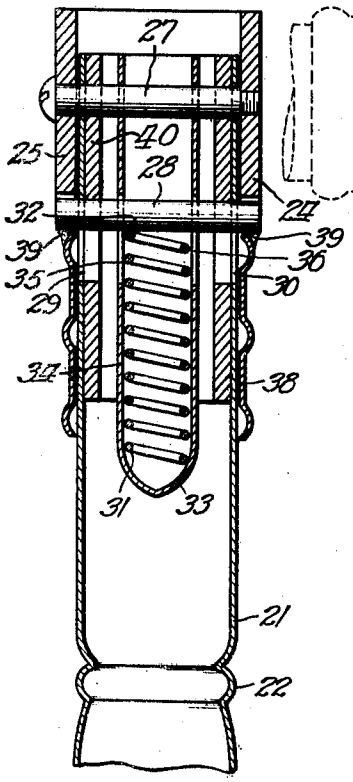
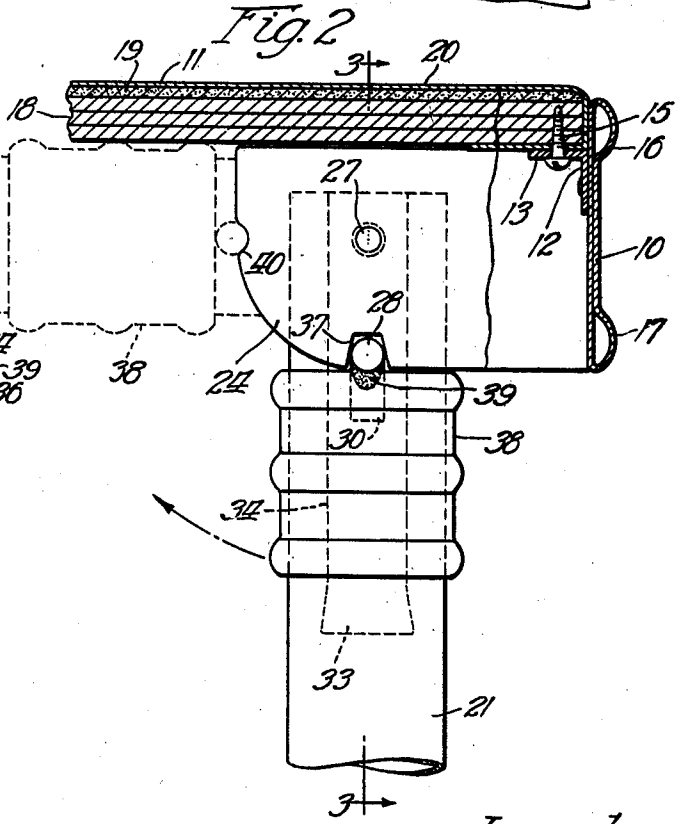


Fig. 2



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UNITED STATES PATENT OFFICE

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FOLDING LEG FOR TABLES AND THE LIKE

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This invention relates to folding tables and more particularly to tables such as card tables having supporting legs which are adapted to be folded from operative extended position to inoperative folded position adjacent the under side of the top.

The principal object of the invention is to provide a folding leg structure in which the leg, when in extended position, will be operative to rigidly support the table in position for use, and which structure will permit the leg to be readily swung to folded position closely adjacent the underside of the table top to facilitate storing of the table when not in use. Another object of the invention is to provide a folding leg construction which is simple in construction, and which does not detract from the general appearance of the table. It is also an object of the present invention to provide a folding leg structure which is operative to retain the leg in folded position as well as in extended position.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawings in which I have illustrated a part of a card table having a folding leg construction embodying one form of my invention.

In the drawings:

Fig. 1 is a bottom plan, the leg being shown in section.

Fig. 2 is a section on the line 2—2 of Fig. 1, and

Fig. 3 is a section on the line 3—3 of Fig. 2.

Referring now to the drawings, my improved card table construction includes a side rail or supporting frame member 10 which preferably extends around the periphery of the table top 11. Brackets such as shown at 12 are secured to the frame 10 by any suitable means, for example, by welding, and the horizontal flange or shelf portion 13 of the brackets are slotted as shown at 14, to receive a screw 15, which extends through the slot and into the card table top, thereby to fasten the top to the frame.

The frame 10 is preferably formed of a tubular metal member which may be collapsed to form a double thickness substantially flat member as clearly shown in Fig. 2, suitable ornamental beads being provided as shown at 16 and 17. The frame may also be formed of sheet metal bent to form the desired shape.

The top 11 is preferably made of a three ply wood panel board 18 in which the layers of wood are arranged with the grain extending in crosswise direction relative to each other so that the panel board will not readily warp and will be of ample strength to serve its purpose. A layer of padding material indicated at 19 is spread over the top surface of the panel board and provided with a suitable covering 20 of flexible material such as fabricoid.

For supporting the table top, I provide tubular metal legs, one of which is shown at 21, and which may be provided with beading or other ornamentation, as shown at 22. The leg 21 is pivotally connected to the top by means of a bracket 23 which includes a pair of spaced arms 24 and 25 which embrace the upper end portion of the leg. The bracket 23 is secured to the frame preferably by welding as shown at 26, and a pivot pin 27 extending through the arms 24 and 25 and substantially diametrically through the upper end of the leg, is provided for pivotally mounting the leg in the bracket. It will be apparent that the leg may be swung from operative or extended position as shown in full lines in Fig. 2, to folded or inoperative position closely adjacent the under side of the table top as shown in broken lines in Fig. 2.

For maintaining the leg in extended position, I provide a spring actuated lock which includes a bolt or cross pin 28, which extends substantially diametrically through the post and is movable lengthwise of the leg in slots 29 and 30, which are provided in the leg. The bolt 28 is yieldingly urged in an upward direction by means of a compression spring 31 which is compressed between the under side of the bolt as shown at 32 and the bottom 33 of a tubular member 34. The tubular member is slotted as shown at 35 and 36 to permit the bolt 28 to extend therethrough and to move lengthwise of the tubular member and

the upper end of the latter is pivoted on the pivot pin 27, about which the leg swings.

It will be apparent that the leg and spring enclosing tubular member 34 may be swung as a unit about the pivot pin 27, the bolt 28 also swinging about the pivot pin in accordance with the movement of the leg. The arms 24 and 25 of the bracket member are notched as shown at 37 in Fig. 2, to receive the ends of the bolt 28 which project outwardly from opposite portions of the leg 21. The spring 31 is obviously effective to cause the bolt 28 to enter the notches 37 so as to establish interlocking engagement with the bracket, thereby to prevent the leg from swinging about its pivot.

A sleeve 38 is slidably mounted on the leg 21, and is secured to the locking bolt 28 by any suitable means such as welding, as indicated at 39, thereby to afford convenient means for moving the bolt 28 against the pressure of the spring 31, thereby to disengage the bolt from the notch 37 in the bracket. The leg may then be swung about its pivot to folded position where it may be maintained by providing a relatively shallow notch 40 in each of the arms of the bracket member, which notch will be effective to receive the ends of the bolt 28 in substantially the same manner in which the notch 37 receives the said ends. The sleeve 38 may be provided with ornamental beading as clearly shown in Figs. 2 and 3, so as to improve the general appearance of the table structure, and also so as to afford a more secure grip on the sleeve for facilitating disengagement of the interlocking parts.

By providing the above described form of spring mounting, I am enabled to use a spring of such a length and strength that it will provide the desired force for effectively and rigidly holding the leg in extended position. I prefer to provide relatively deep notches 37 so that there is no danger of accidental releasing and folding of the leg while the notch 40 may be relatively shallow, so that it is not necessary to disengage the pin 28 from the notch as an independent operation, before swinging the leg from folded to extended position. By providing a relatively shallow notch for holding the leg in folded position, the leg may be extended by merely grasping the leg and swinging the same in the proper direction, the bolt being incidentally forced out of the notch because of the inclination of the sides of the notch. A reinforcing 40 may be provided in the upper end of the leg for strengthening the same, the reinforcing being apertured and slotted to receive the pins 27 and 28 substantially as shown in Fig. 3.

I am aware that changes may be made in the form, construction and arrangement of parts without departing from the spirit of the invention, the scope of which should therefore be determined by reference to the following claims, which should be construed as broadly as possible, consistent with the state of the art.

I claim as my invention:

1. In a folding table of the class described, the combination of a table top, a bracket connected to said top, and having a pair of substantially parallel spaced arms, a hollow leg member having its upper end portion disposed between said arms, a pivot pin extending through said arms and through the leg portion disposed therebetween, said leg being thereby pivotally mounted in said bracket member, a locking member extending through said leg and slidable lengthwise thereof and having its outer end portions adapted to interlock with portions of said bracket arms so as to maintain the leg in extended position, a compression spring for yieldingly urging said locking member into said interlocking engagement, and means for mounting said compression spring within said leg comprising a tubular member pivotally mounted on said pivot pin and extending downwardly within the leg, said tubular member having its lower end closed for receiving and positioning the lower end of the spring, the upper end of said spring being disposed against a portion of said locking member within the leg.

2. In a folding table of the class described, the combination of a table top, a bracket connected to said top and having a pair of substantially parallel spaced arms, a hollow leg member for supporting said top, said leg member having its upper end portion disposed between said bracket arms and having a slot extending therethrough adjacent the lower edges of the arms, and elongated lengthwise of the leg, a pivot pin extending through said arms and leg for pivotally mounting the leg in said bracket, a locking bar disposed in said elongated slot, so as to be movable lengthwise of the leg and having its end portions projecting from the leg so as to be capable of engaging portions of the adjacent bracket arms, a compression spring disposed within the leg for yieldingly urging said locking bar to move lengthwise of the leg into engagement with said bracket arms, the latter having notches for receiving the ends of the locking bar so as to interlock the bar and bracket arms, thereby to maintain the leg in fixed position relative to the bracket and table top, and a sleeve, slidably mounted on said leg and connected to said pin for facilitating disengagement of said locking bar from said notches, thereby to permit the leg to be swung to folded position.

3. In a folding table of the class described, the combination of a table top, a bracket connected to said top and having a pair of substantially parallel, spaced arms, each provided with a notch, a hollow leg member for supporting said top, said leg member hav-

ing its upper end portion disposed between said arms and pivoted to said bracket on a horizontal axis spaced from said notches and having elongated slots extending lengthwise of the leg in oppositely disposed wall portions thereof adjacent said notches, a horizontal locking bar extending through and fitting said elongated slots, said bar having its ends projecting from opposite sides of the leg so as to be capable of entering said notches, a spring disposed in the hollow of the leg for yieldingly forcing said locking bar lengthwise of the leg so as to cause said ends to enter said notches, thereby to maintain the leg in fixed position relative to the bracket and table top, and means for facilitating manual disengagement of said locking bar from said notches to permit the leg to be swung to folded position.

FRANK B. HARMAN.