Dec. 9, 1930. T. S. WALKER 1,784,507

FOLDING TABLE

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Fig. 1.

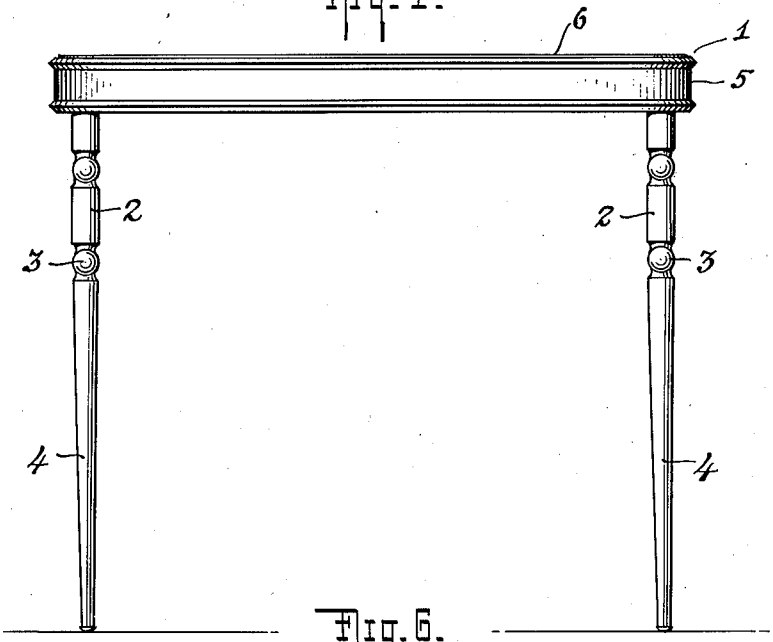
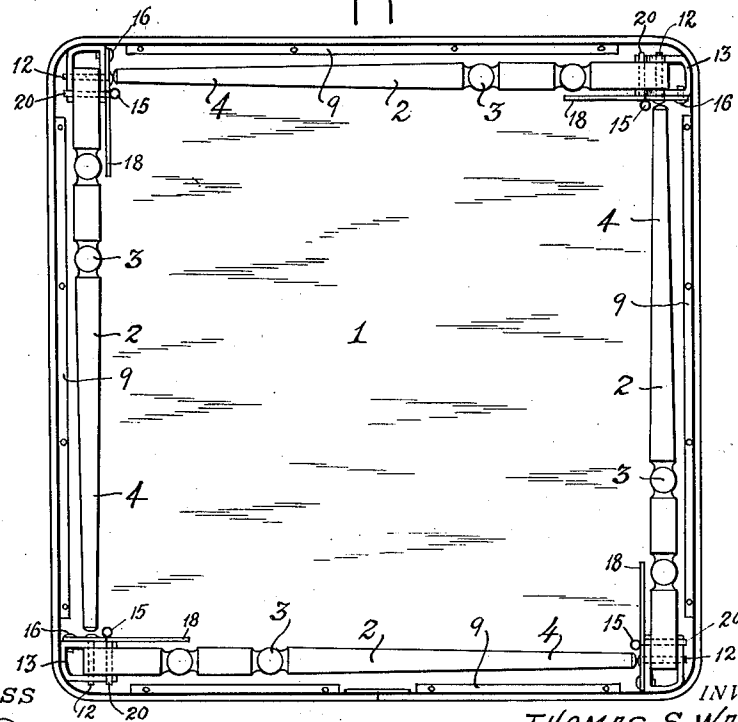


Fig. 6.



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FOLDING TABLE

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Fig. 3.

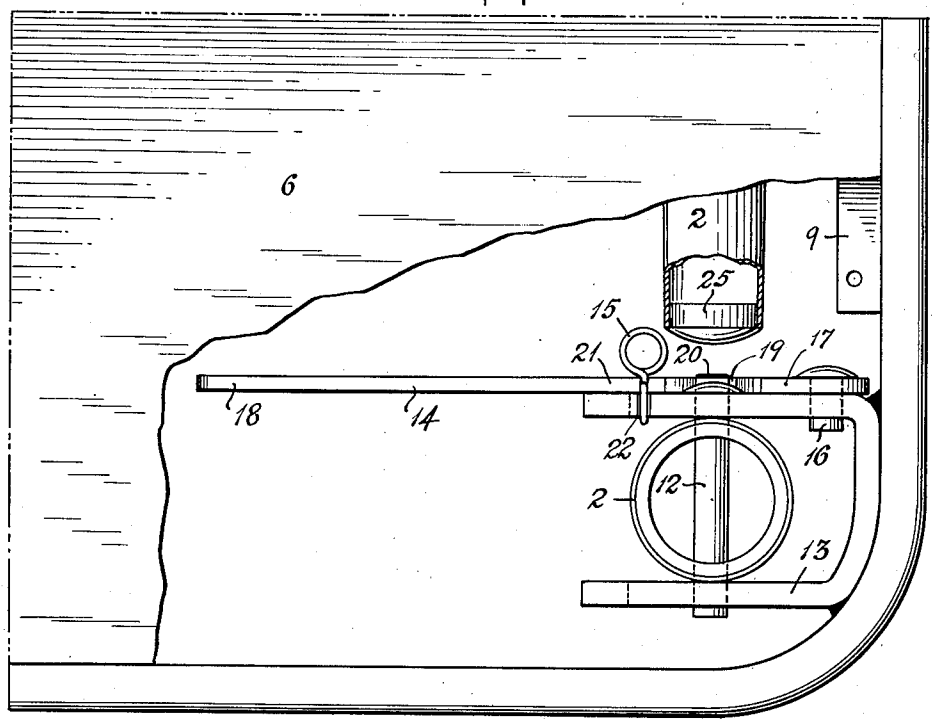
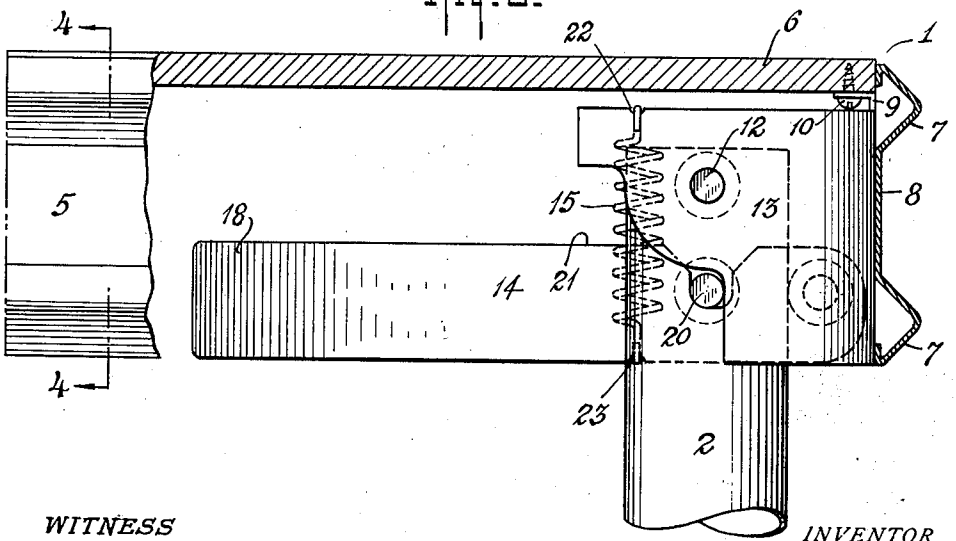


Fig. 2.



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Fig. 5.

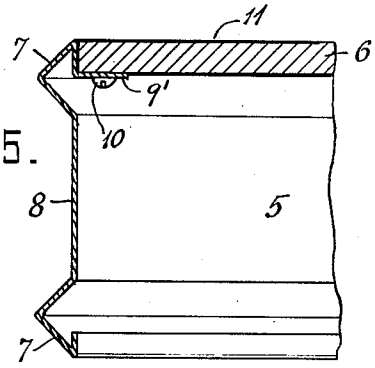


Fig. 4.

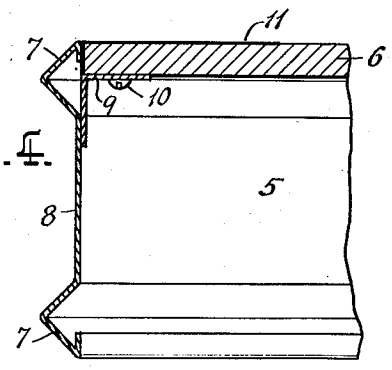


Fig. 8.

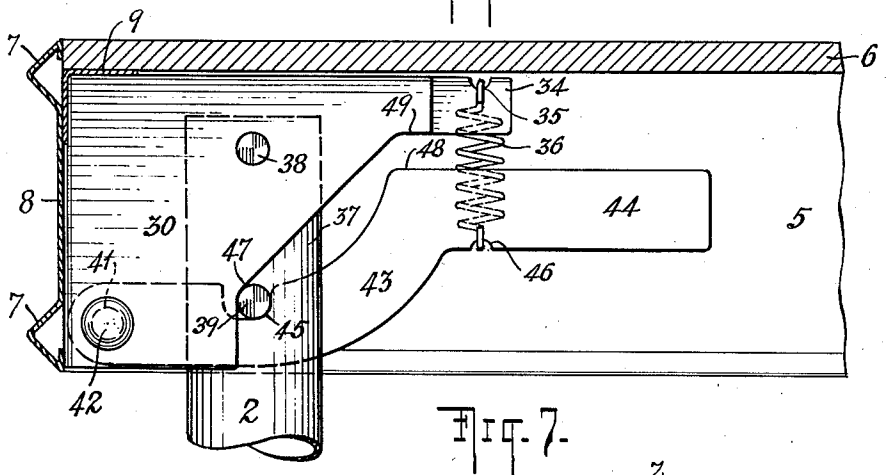
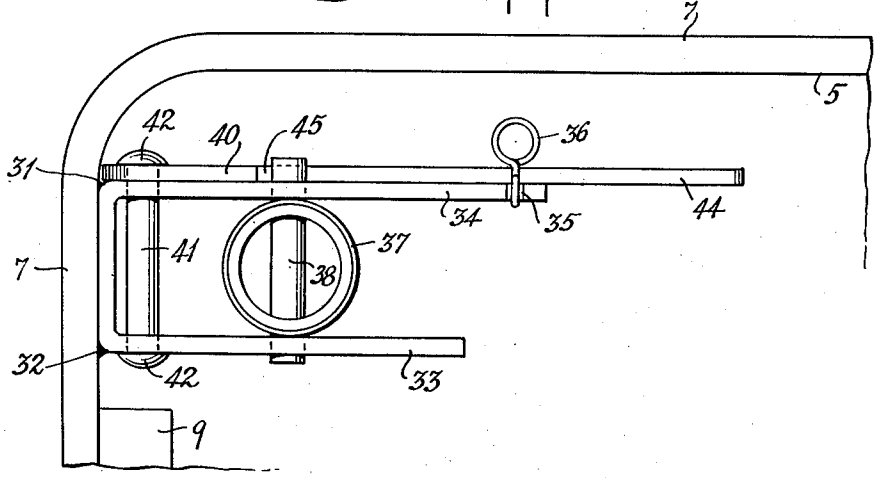


Fig. 7.



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Patented Dec. 9, 1930 1,784,507

UNITED STATES PATENT OFFICE

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FOLDING TABLE

Application filed June 21, 1928. Serial No. 287,207.

This invention relates to tables, and more particularly to a folding table which is provided with legs adapted to be folded under the top of the table so as to form a compact structure which can be easily stored in some small place without taking up much room.

An object of the invention is to provide a folding table with a metal frame and metal legs so that a strong, rigid, and durable structure is produced.

A further object is to incorporate in a folding table a novel and improved latching device which will positively and firmly hold the legs in either a vertical open position or in a horizontal closed position and which will be resiliently mounted so as to permit the manipulation of the leg in opening or closing the table.

The invention also contemplates providing a construction which has a few simple parts, which is easy to fabricate, which is economical to manufacture, and which has an attractive and neat appearance.

Other objects and advantages will become apparent from the following description taken in conjunction with the accompanying drawings in which

Fig. 1 is an elevation of a folding table embodying the principles of my invention with the legs in an open position;

Fig. 2 is a fragmentary detail view in elevation and on an enlarged scale, partly in section, of one corner of the table illustrating the leg connection and latching device;

Fig. 3 is a plan view of Fig. 2 with parts broken away to show leg connection and latching device;

Fig. 4 depicts a fragmentary sectional view taken on the line 4—4 of Fig. 2;

Fig. 5 is a view similar to Fig. 4 of a modified section;

Fig. 6 illustrates a bottom plan view of my improved table showing the legs in a closed position; and

Figs. 7 and 8 are views similar to Figs. 2 and 3 of a modified construction.

In the drawings the numeral 1 designates a table top which is mounted on a plurality of foldable legs 2. The legs are herein shown as four in number but any other number may be used depending on the particular conditions. Although any suitable material may be employed for the manufacture of the legs, I prefer to make them from welded metallic tubing. This tubing can be subjected to various fabricating operations without splitting at the weld and can be drawn or tapered or otherwise shaped. In the embodiment illustrated in the drawings I have shown the legs with ornamental rolled portions 3 and tapered ends 4.

The table top 1 is composed of a side channel 5 and a top panel 6, as may be seen clearly in Figs. 2 and 4. The side channel may have any preferred form but it is depicted as having a V-shaped corrugation 7 at the top and the bottom with a plain intermediate portion 8. Supported from the top V-shaped corrugation is a flange 9 which acts as a seat for the top panel. Flange 9 is provided with a plurality of holes through which screws 10 may be inserted to hold the top panel securely in position. The top panel is shown as being constituted of wood although any other appropriate material, such as metal, pressed board or the like, may be utilized. The upper surface of the panel I prefer to cover with a sheet of leather 11 or other suitable material which may be affixed to the panel by gluing, tacking or other approved method.

In Fig. 5 another form of side channel is illustrated which shows a flange 9′ for the table top rolled integral with the top V of the side channel. The other parts of the modified channel are the same as the channel shown in Fig. 4 and described hereinabove so that it will not be necessary to repeat the description. Each form of channel, of course, is made of one piece which is bent into the form of rectangle or square having rounded corners and the ends of the piece are abutted against each other and welded to each other or fastened to each other in some suitable manner, as one skilled in the art will readily understand.

Each leg 2 is mounted on a pivot 12 which is carried by a fixed U-shaped cantilever bracket 13. The bracket is secured to the inside of the side channel of the table by welding, for example, although riveting, bolting, etc., may be employed. By rigidly

fastening the bracket 13 to the side channel the leg 2 can be swung about the pivot from one extreme position to another, i. e. from a horizontal closed position to a vertical open position. In order to hold each leg positively and firmly in either its open or closed position I provide a latching device which consists of an index lever 14 and a spring 15 associated with the said lever so as to put it under resilient tension. The index lever is pivoted on a pin 16 which is fastened in the U-shaped bracket close to the side channel. As may be seen from Fig. 2 the index lever has an inner portion 17 and a terminal portion 18. On the upper part of the inner portion 17, a recess 19 is provided for the reception of a locking or index pin 20 projecting from leg 2 below its pivot point. The pin 20 rides along the upper edge 21 of the index lever when the latter is pressed downwardly against the tension of the spring and the leg is swung inwardly to its horizontal closed position. When the leg is in its closed position, pin 20 is in contact with edge 21 of the index lever so that the leg is held positively and firmly in position by the action of spring 15. This spring is shown as one of a helical type which is hooked in depression 22 of the bracket and in a depression 23 on the underside of the index lever although any other type of spring may be used such as a flat spring projecting from the side channel and bearing against the underside of the lever.

The use of my improved folding table is obvious to anybody. It is sufficient to mention, however, that when the table is in a closed condition the legs are all folded within the confines of the table top and are held in that position by the associated index lever and spring. When it is desired to open the table the terminal portion of the index lever is moved against the tension of the spring so as to free the locking pin 20. By now moving the leg the pin 20 rides along edge 21 until it seats itself in recess 19. After all of the legs are swung into a vertical position with the pins 20 locked in their respective recesses 19, the table is ready for use. By providing a dome 25 in the bottom of each leg in any well known manner the table may slide along a floor easily and without scratching it, as one skilled in the art will readily understand.

In Figs. 6 and 7, I have depicted a modified latching device which can be incorporated in my new folding table. The channel 5 has the V-shaped reinforcing ribs on the top and bottom thereof with a plain intermediate portion 8 as explained hereinabove. The table top 6 is carried as usual by flange 9 which is welded to the inner wall of the side channel. A V-shaped bracket 30 which is somewhat like bracket 13 is fastened to the inner wall of the channel in any appropriate manner and is herein depicted as being welded at points 31 and 32. The bracket 30 has a short cantilever arm 33 and a long cantilever arm 34 which has a depression 35 for hooking the end of a tension spring 36.

Pivoted in each bracket 30 is a leg 37 which is carried on a pin 38. This pin is securely fastened in the arms of bracket 30 so that the leg may be turned back and forth without danger of the pin falling out when the legs are opened and closed. In order to maintain the legs in an open or closed position I provide a locking pin 39 which projects from the side of the leg just below pin 38, and which cooperates with an index lever 40. This lever is mounted at one end on a pin 41 which is passed through the arms 33 and 34 of the bracket near the inner wall of the side channel and fastened in position by means of heads 42. Extending from the pivoted end of the lever is an upwardly curved portion 43 and a straight terminal portion 44. On the upper side of the curved portion a recess 45 is provided for the reception of the locking pin 39 and on the under side of a depression 46 is provided for the lower end of spring 36. As shown the index lever is preferably made as one integral unit constituted of the aforesaid parts.

When a leg 2 is in an open position as depicted in Fig. 8 the locking pin 39 is firmly held in the recess 45 and against the edges 47 of the arms 33 and 34. In this manner each leg is held securely in place so as to provide a table of rigid construction. In the same way the locking pin of a leg is clamped, as it were, between upper edge 48 of the terminal portion 44 and shoulder 49 of the bracket 30. As is readily understood when it is desired to close the legs of the table the index lever 43 is grasped at its terminal portion 44 and is pulled down to free the locking pin from its recess and then the leg is folded under the table. By releasing the index lever the spring pulls it up against the locking pin and holds the latter between the upper edge 48 and the shoulder 49. When the four legs are folded under the table it will have an appearance similar to the view illustrated in Fig. 6. This modified structure, like the one described heretofore has the parts of the leg connections and latching devices entirely concealed underneath the table top when the table is open or closed so that an attractive looking table is provided.

In some instances, it might be desirable for purposes of strength, fireproofing, and longevity of life to make the table entirely of steel or some other metal. Under these circumstances, therefore, I use sheet steel or the like for the top of the table so that the entire table is made of metal which is strong, rigid and fireproof.

Although I have described a specific embodiment of my invention it is to be under-

stood that the invention is not restricted to such particular embodiment. Various modifications thereof in detail and in the arrangement of the parts may be made by those skilled in the art without departing from the invention as defined in the claims.

I claim:

1. A folding table comprising a table top consisting of a side frame and a top panel, a bracket positioned within each corner of said table and underneath the top panel, a foldable leg pivotally mounted on each bracket and adapted to swing into a closed horizontal position underneath the table top and within the confines of the side frame and into an open vertical position, a horizontally projecting pin carried on the side of each of the said legs, an upper and lower pin-engaging shoulder carried by each of said corner brackets and spaced about 90° from each other, and a compound resilient latching means, operatively associated with each of said brackets and mounted in a concealed position underneath said table top for releasably holding said leg in either a closed horizontal position or an open vertical position, said latching means having a recess to cooperate with the lower shoulder for engaging the projecting pin and for positively holding it when the leg is in a vertical position.

2. A table such as set forth in claim 1 in which each of the resilient latching means is provided with a coiled spring for holding said means in position.

In testimony whereof I have hereunto set my hand.

THOMAS STEELE WALKER.